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ANCIENT INDIAN CULTURE AND CIVILIZATION

Second Revised Edition

By

K. C. CHAKRAVARTI M.A.

Professor of History and Economics

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TO

MY FATHER, WHO IS NO MORE.

FOREWORD

Shri K. C. Chakravarti in his manual on Ancient Indian Culture and Civilization has sought to trace the unity and continuity of Indian Culture for over 5,000 years. While utilizing the literary, historical and archaeological material, and telling us what India contributed in the field of art, architecture, townplanning, administration, politics, education, religion, philosophy and literature, the author has not forgotten the sciences. Special sections are devoted to mathematics and astronomy, chemistry and medicine. He has rightly stressed the importance of the decimal system and its probable origin in India. India's contact with the West is treated in several chapters and what she did in transmitting her culture to her colonies in the Far East as well as in Turkestan and Central Asia is briefly narrated. These indeed are the special features of this manual. Rarely within a small compass all the aspects of Indian history and culture and the unifying factors behind it have been so well brought out. The book, therefore, deserves to be read.

The Right Hon'ble
Dr. M. R. JAYAKAR, P.C., M.A., D.C.L., LL.D.
Vice-Chancellor, Poona University.

PREFACE TO THE FIRST EDITION

In bringing out this volume I have generally in view those readers who have not read Indian history in their school or college days but who have a keen interest in India's past, particularly in the cultural history of the country. There are big volumes written by a host of specialists in different branches. Such volumes cannot be profitably utilised except by those who have a good back-ground. Most of the standard text books deal mainly with political history and usually contain in a bewildering way the lists of so many kings, their dynasties and battles. Achievements by India in other spheres have hitherto been ignored as not sober history. This book gives in a simple, lucid, popular and attractive style the main development of India's cultural history and deals in greater details with her main contributions to civilization. While the essential unity is never lost sight of greater emphasis has been put on topics like India's contact with Greece and the spread of Indian religion, philosophy, sciences, art etc. in Europe, Asia and the South East Asia.

I am thankful to Professors Hiralal Kapadia and G. S. Ghar for their encouragement and help, to Prof. J. C. Dutt for going through the manuscript, to Prof. R. V. Shastri for correcting the proofs and to Mr. D. J. Bhagat of Express Block Works, Surat, for supplying me some of the blocks and helping me at every stage. I am also thankful to the innumerable authors most of whom I have included in the Bibliography, for their ideas and last but not least, I am grateful to the Right Hon'ble Dr. M. R. Jayakar, P.C. M.A., D.C.L., LL.D. Vice-Chancellor of the Poona University for his encouragement.

M. T. B. College
Surat
20-6-52

K. C. CHAKRAVARTI.

PREFACE TO THE SECOND EDITION.

The first edition of this book was exhausted within three years after its publication, but owing to certain difficulties over which I had no control, the second edition could not be brought out. In the light of the criticism by my reviewers I have revised some of the chapters but I have kept the main arrangement of the book unaltered. One reviewer has pointed out some serious blemishes. I have corrected them all. Most of the reviewers have pointed out that I did not do proper justice to the contribution of South India to Indian culture. In a book of 342 pages I devoted only 19 pages to the South. No doubt, this criticism is quantitatively true. Although I devoted only one chapter separately to the contribution of the South, in other chapters, the South Indian contributions have been properly emphasised. One reviewer has pointed out that this book is too short for the vast mass of materials used and another reviewer has pointed out that certain ideas in certain chapters should have been more elaborately discussed. I fully agree with them but space did not permit me to do it, for which I am really sorry.

I thank, this time in particular, Prof. G. S. Ghar and Prof. P. R. Barua for their help and encouragement.

K. C. CHAKRAVARTI.

Cachar College,
Silchar (Assam).
1-6-61.

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CHAPTER I

INDIAN CULTURE—ITS UNITY AND CONTINUITY

What is culture? Distinction between culture and civilization. The ancient Greeks and the Romans—the modern English, the French and the Americans—how fusion of culture takes place—the Greeks politically weak but culturally superior—captured her captors. India is a melting pot—main features of Aryan culture—elemental gods and goddesses, sacrifice and prayer, agricultural life, non-vegetarian food including beef and wine, absence of the caste system and the purdah. How this changed and modern Hinduism evolved. Main features of the modern Hinduism of the masses—worship in place of sacrifice, newer gods and goddesses—myths and legends, idol-and-temple worship, vegetarian food with a taboo on beef, caste system and the purdah, veneration for the cow as a divinity. The unbroken continuity of Indian culture—its distinctive individuality. Is there today an Indian people as such? Ancient India—popularly called Hindu period of Indian History from 3000 B. C. to A. D. 1000. A study of such a history is both interesting and helpful. Absence of the historical sense. A correct knowledge of what is Indian culture—its origin and development, its contribution outside and what foreign elements it contains should stimulate patriotism and at the same time remove sectarianism and narrow-mindedness. Why is India so called? Who are the Hindus? Why religious rites occupy so much attention in the history of Indian culture?

It is difficult to define *culture* as the word is used in different senses by different writers. The dictionary

meaning of culture is *improvement by training; intellectual development.* Although the word is widely used, the 24 volumes of the *Encyclopedia Britannica* contain not a word on it. Without defining the word, and sacrificing precision for lucidity we may say that in plain language the culture of a people means *the way of life of that people.* Every group of people in all ages developed some peculiarities by living together for some time. They had some common ideas and beliefs, invented and used some weapons and tools with which they carried on their struggle for existence, followed the same social and religious practices, cultivated certain noble virtues, formed some habits good as well as bad, and were influenced by certain common prejudices. In this way, each group developed some peculiarities of its *way of life.* Sometimes this way of life was of an inferior type and sometimes this was, when compared with its own past or with that of another group, of a superior type. In a sense even the most barbarous hill tribe in South Africa or Australia has its own culture. But nowadays culture is used in a narrower sense and it conveys an idea of cultivation and development. Therefore by culture is not meant merely a description of the manners and customs of a people. As soon as people had begun to think and compare, they began to esteem certain things as more valuable and worth imitating and cultivating. Those valuable things are material progress, spiritual achievement, embellishments of the mind and intellectual pursuits. But these are the contents of what we call civilization. Culture is different from civilization, though both are closely connected. Civilization is opposed to barbarism. A long time passed between the life of the ape in the state of nature and the life of the first man that evolved in course of thousands of years. The gap between the last ape and the first man

is very narrow. Generally the important feature that distinguishes man from ape is said to be the former's *use of tools*. Man is said to be a tool-using animal. From the time the ape started using a tool he has become a man and civilized life emerged out of the barbarous life. Anthropologists have classified the period from the earliest times when man was just evolved to the time when recorded history was just available on the basis of the different tools used. This is the beginning of civilization, and after that period, civilization comes to mean the progress made by a people usually in the material world and in the conquest of nature. A civilized people is far removed from nature and very often civilized life means a sophisticated and artificial life. A people may be highly civilized but may not be as highly cultured. In material prosperity, in military strength, in legal organisation and government, Rome made great achievements but the Romans were not as cultured as the Greeks. Greek culture had thoroughly penetrated into all walks of their life. Though not as advanced as the Romans in material prosperity their mental embellishments and social life were of a definitely higher order and when Rome conquered Greece and came in close contact with Greek culture, the Romans yielded to the Greeks. Politically Greece was conquered but culturally Greece captured her captors. It was through the empire built by Rome that Greek culture spread till at last the whole of Europe, Egypt and the countries of Asia upto Afghanistan, became Hellenised. In fact, modern European culture and civilization are based on Greek culture and civilization. Similarly, we may say that in the modern world, England surpassed until recently all other European countries in material prosperity, in wealth and organisation, but in culture, France is still superior to England. The United States of America has made phenomenal progress

in science and technology but culturally America is not possibly superior to France or Germany.

A people can develop its culture only when left undisturbed by others. Certain beliefs and notions influence their whole life and these are expressed through their religious and social institutions. But people seldom live in isolation. In modern times to a greater degree and in ancient times to a less, peoples of different cultures have often come in close contact with one another and ideas crossed political frontiers more quickly. In this way one group influenced the other and seldom do we find a pure culture anywhere. Sometimes, if a more virile culture comes into closer contact with another culture which is in some respect superior but otherwise decaying and which may be on the whole, of an inferior type, the superior culture imposes itself on the other and the other may be wiped out. The Greeks in this sense influenced the Alexandrian Egyptians. The European settlers in America have practically wiped out the indigenous Red Indians and the Arabs similarly supplanted the Persians. But this cultural conquest is not actually so complete as is generally supposed. The new culture asserts itself but some of the older beliefs and institutions survive and are incorporated in the new culture. The new culture in this way is modified and a synthesis takes place. In this sense no culture is possibly lost and no culture is absolutely original. How this fusion took place in the ancient world and how it takes place even now is an interesting study and it is more interesting in India where the peculiar genius of India accounts for the absorption of so many diverse elements. Some four thousand years ago the Aryans came to India and settled in the Punjab and then they spread eastwards as well as southwards. In some respects

their culture was not superior to that of other races who lived side by side with the Aryans nor to that of the indigenous people who were then inhabiting India. But on the whole the Aryan culture was more virile and strong, and gradually the Aryans were successful in imposing their own culture on others and the whole country became thoroughly Aryanised. The Aryans, however, could not physically wipe out the local tribes as the European settlers did in America or Australia, nor did the Aryans *en bloc* migrate to the eastern and the southern regions of India. In certain areas the local people were fairly cultured. Aryanism received considerable resistance and the old beliefs and institutions did not altogether disappear. These non-Aryan elements were gradually incorporated into the Aryan fold and Aryanism itself was modified. In the meantime immigrants through the North Western Frontier, in waves after waves, poured in and along with them came their separate culture. But in course of time all of them practically lost their identities and got merged but not without leaving some new and distinctive marks. The result was that not only these foreign elements were Indianised but Aryanism itself was so modified that it is difficult to say to what extent today Indian culture continues to be Aryan. Scholars, therefore, prefer to call it Indianisation of Aryanism. Rabindranath Tagore has excellently brought out this idea in the poem *Bharatatirtha* where he says,

Hethay Arya hethay Anarya hethay Dravid Chin
Shak Hundal Mughal Pathan ek dehe hala lin.

India is like a big cauldron or melting-pot, in which different ingredients are put. These ingredients retained their identity for some time but ultimately they got mixed up and formed one body. This is not unlike what took place

in the United States of America. Europeans and non-Europeans went and settled in America. For some time each retained his separate identity but in the course of two or three generations they got completely merged and became Americans. The difference is that in the case of India this fusion takes a longer time—not two or three generations but possibly two or three hundred years, sometimes even more. We shall presently see that the main features of the Vedic Aryan culture some 4,000 years ago were that these Aryans lived a more or less outdoor life, occasionally fighting against the indigenous tribes as well as amongst themselves, that they conceived of some elemental gods and goddesses e.g., Agni, Indra, Varuna, Marut, Ashvin, Usha etc., that they composed prayers and hymns for them and offered sacrifices, that they used to have non-vegetarian food including beef and a kind of wine called *soma* and that there was no caste system or purdah for women. Towards the close of our period i.e., before the Moslem conquest (roughly A. D. 1000) we shall see that things have changed and that the main features of the Hinduism of the masses in India are that there is a rigid social structure where the caste system has crystallized, that the Vedic hymns and prayers have given way to myths and legends, that innumerable gods and goddesses have come into existence giving rise to idol-and-temple worship, that the doctrine of the incarnation of God and the transmigration of the soul have taken firm roots, that the people have become vegetarian with a taboo on beef, that the cow is being considered a divinity and that women are kept secluded in what is called the purdah system. To a casual observer it may seem that the present day Hinduism has absolutely no connection with Aryanism. But we shall see in the following pages that it is Aryanism modified by

non-Aryan elements which has given rise to modern Hinduism and that the link between the two can be ascertained. It is this continuity of Indian culture that is all the more attractive and interesting to all students of history. Some of the things considered most valuable and important in life by many Indians, have come down in the course of the last four thousand years in absolutely unbroken and unaltered condition. The people of modern Egypt have forgotten their Pharaos, their Ra, or Amen, the people of Greece do not go to Delphi when in trouble nor do the Roman Vestal Virgins keep the holy fire burning but many Indians now recite the Vedic *mantras* in exactly the same way, syllable by syllable and without any change in accent or punctuation as their forefathers did thousands of years ago. The world has changed, life is different from what it was, newer ideas have developed, the old script is forgotten, the language has become archaic; even the rivers and the seas have changed their courses but many Indians of today recite the same *mantras* at the time of initiation, and perform the same rites and sacrifices at the time of their marriage or death. The meaning of these prayers and incantations is forgotten but as they were not preserved in writing but transmitted orally from father to son and from teacher to pupil, the Vedic tradition is preserved verbatim, syllable by syllable, without any change in pronunciation, accent, tune or rhyme. This is something unique in this world.

Not only in uttering some obsolete *mantras* and incantations but in many other fundamental beliefs and ideas also, the Indian life continues to be the same. Nor has the temperament of India as expressed through her arts, architecture and sculpture altered much. To know the truth whether in religion or philosophy or science, people

did not depend entirely on reasoning as was the case in Greece; greater emphasis was laid on intuition and realisation through this had led her away from the right course on many occasions. The inquisitive mind in Greece started enquiring from what they saw before their eyes but in India they went farther to find out if there was any other thing beyond. In art, man, man's beauty, man's intellect was everything in Greece but in India these awakened no response. The vision of the Indian was, to quote Rapson, bounded by the immortal rather than the mortal. While Greek thought was ethical, the Indian was spiritual; where Greek was rational, his was emotional. To these higher aspirations, these more spiritual instincts the Indian had always sought to give articulate expression. This continues to be the fundamental characteristic of Indian art even today. Again, in her conception of moral values also, India continues to be distinct. The rational mind elsewhere cannot justify Ramachandra, the great Indian hero, when he banished Sita whom he knew to be innocent. But right or wrong, this piece of action by Ramachandra is regarded as an ideal to be followed by many even now. Indian leaders and heroes fought many a battle, sometimes with one another and sometimes with foreign enemies but to win the battle by all means fair and foul, was not the guiding principle. The ideal of *dharma yuddha,* battle on strictly righteous lines had persisted throughout. To many this may appear to be silly and on many occasions it was disastrous; yet right or wrong, substantially these ideals have guided Indian life through ages.

Regarding these observations and those that will follow, it may be said that these apply to a few only in India and therefore, should be ignored. Regarding the

past there is less room for doubt but regarding the present the controversy as to who are the Indians, is very acute. We should, therefore, define clearly what is meant by *India* and the *Indians*. The country is vast. The population is large. There is a wide range of variety—practically people of all stages of civilization from the naked hill-tribes of Assam in eastern India to the extremely Europeanised Parsis in western India, are available and any one for or against, may describe any such group and call it *Indian*. The other difficulty is whether there is any one people in India. India is a sub-continent as large as the whole of Europe with the exclusion of Russia. People in different provinces are thousand miles apart. They speak different languages. Religious practices and social customs differ so widely that it is difficult to hold, at least for a casual observer from a foreign country, that there is much in common to them all. An Englishman may come to India, stay in different places for some time and yet fail to see any Indian. After all, any Indian whom he sees is either a Bengali or a Madrasi or a Punjabi or a Gujarati. This will be like a man inside a forest, looking at trees but missing the overall view of the wood.

It cannot, of course, be denied that the country is vast, divided into distinctly separate provinces where people speak different languages and have different manners and customs but any careful observer will find that underlying all these differences there is fundamental unity throughout. Differences in dress, food, language, manners and customs there are, but the common bonds which unite all the people together are not less real. The sentiment of unity is sometimes weak, sometimes strong according to circumstances. Politically, whenever that sentiment was weak disruption took place and India fell

a victim to foreign rule but on occasions some powerful ruler mobilised the united forces under him and brought about political unity throughout the country. The tradition of such a united empire has been a source of unity. Besides, all Indians feel a peculiar pride for their past civilization and heritage. Legendary heroes like Rama and his encounters, the epic battle of Kurukshetra, the rich Sanskrit literature, the holy places like Banaras, Allahabad, Ujjain, Nasik etc., are the common sources which inspire all hearts alike. It is this cultural unity which has seldom been broken and it is all the more noticeable when Indians come in contact with foreigners. Europe is a geographical expression; it does not politically exist. But nobody can deny the significance of European culture and civilization.

The study of the cultural history of India has a particular interest for every Indian. The study of India's past is of recent origin and we did not know many things of her history except the names of some legendary kings and events. Every Indian has a vague notion that we had a very glorious past but what that exactly was nobody knows. Many Indians are under the impression that whatever people in other countries have had we also had them *in the Vedas*. But few would like to know what the Vedas are. Again, there is no historical sense in them. Different epochs are separated by hundreds and thousands of years so that all are not equally old. To the popular mind Buddha is as old as Rama or Vikramaditya or Kautilya. Anything written in Sanskrit is scripture. Further, the study of the cultural history of India is likely to remove many prejudices. We should exactly know the contents of our culture, how and from what sources certain ideas and institutions have developed so that our

antipathies against one another and against many foreigners may be removed. Many of our prejudices will vanish when we shall learn, for example, how the caste system originated and developed, how many gods and goddesses are of non-Aryan origin, how many of our religious ideas are derived from Buddha and Mahavira. A dispassionate study of this subject is likely to liberalise the mind, broaden the outlook and remove provincial narrowness and sectarianism.

Foreigners call our country India but people themselves call her Bharata or more recently Hindusthan i.e., the land of the Hindus. By Indian culture we do not mean Hindu culture though the main contribution comes from the Hindus who belong to one religious group among several others. For the ancient period we cannot ignore other important religious groups e.g., the Buddhists, the Jains, etc., whose contribution to Indian culture was more considerable than is popularly known. For the modern period Indian culture includes the contribution by the Moslems, the Christians etc. These contributions are also not negligible. The word *Indian,* therefore, has a wider meaning than the word Hindu. But the word Hindu in some foreign countries e.g., America, has a political meaning. It does not mean persons of any religious denomination. Everybody in India whether a Hindu or a Moslem or a Christian is a Hindu. In this sense, the words Indians and Hindus can be used synonymously.

The Indians call their country Bharatavarsha which is derived from the name of a Vedic clan, the Bharatas who rose to power in Vedic times, and the land occupied and inhabited by them came to be called *Bharata.* The outside world knows the country as India but this name is not of foreign origin. It is derived from the river Indus

called *Sindhu* in Sanskrit which originally meant a stream or a big sheet of water. Any such big river was *Sindhu* and the land where the Aryans settled was called *Saptasindhava* or *the land of the seven rivers.* In course of time a particular river came to be designated as the *Sindhu.* The old Persians, first cousins of the Rigvedic Aryans, used to pronounce it as Hindu and Hind from Sindhu and Sindh as *s* in Sanskrit is pronounced as *h* in old Persian. Words are pronounced differently by different peoples and Sindhu becomes Sindh-Sind-Hind or Ind due to differences in pronunciation by different peoples. The Arabs called this country Hind or Ind and the Greeks whose knowledge of India was through the Persians just as India's knowledge of Greece was through the Persians, called this country *Indos.* In the Roman language the name of a country is of feminine gender and the suffix *ia* is added and hence to the Romans the country became India. The English continued this name which today is officially accepted by the new Republic born in 1950. The earliest record in writing of this word is found in the inscriptions of Darius at Persepolis and Nakshi-rushtum in the 6th century B. C.

Today persons following certain creeds and practising certain rites are called Hindus but actually there is no such religion as Hinduism. From confirmed atheists who do not believe in God to those animists who worship trees, stones, snakes etc., all are Hindus, and so far as doctrine is concerned we cannot categorically say that the acceptance or non-acceptance of a doctrine makes one a Hindu. Regarding forms of worship or rites nothing is conclusive. A person born of Hindu parents and calling himself a Hindu is considered a Hindu irrespective of any tenet or faith to which he may subscribe or any

practice of religious formality he may perform. The Hindus can be compared with the ancient Greeks and Romans, and like them the Hindus should better be called pagans. It is one of those ancient forms of religion which evolved automatically with the evolution of the human mind. In a sense the Hindus were animists like those aboriginal tribes in hills and jungles who worship stones, trees, spirits etc. But as the Hindus are intellectually superior and have developed a higher philosophy nobody would call them animists today, unless one likes to abuse them. Like paganism and unlike Christianity or Islam, the Hindu religion was not started on any particular historical date by any historical prophet with any definite set of dogmas or doctrines. The modern world is not familiar with any existing form of pagan religion nor would the European mind like to place Hinduism on an equal status with Greek paganism. Hence there is so much confusion regarding what exactly Hinduism is.

Nor is Hinduism non-proselytising as is generally believed. It is true that there is no conscious and planned effort for converting persons of other religions but the process of Indianisation is going on imperceptibly. It being a pagan religion and not being limited by any particular creed or dogma, Hinduism is catholic enough to include foreign elements within its fold without the foreigner knowing that he has made any serious change in his life. It has also its peculiar flexibility. In certain areas it is characterised by extreme rigidity of the caste system and untouchability, but in certain other areas it is very liberal and all-embracing. Being itself pagan it is closer to the animists and it spread from the Punjab to the eastern and the southern areas and it is still gradually and very imperceptibly spreading amongst many

tribes on the borders of Assam and Chittagong. Conversion on a mass scale seldom took place. And the process is not so spectacular but the process itself has not altogether stopped. Of course, it is true that if other religions consciously and deliberately, with vast resources and organisation at their back go on converting people, this slow and unconscious process of Hinduisation cannot survive competition.

There were also occasions when foreigners had been converted to Hinduism or Moslem converts had been reconverted *en bloc*. When the Hindus in Sindh were first converted forcibly to Islam in the 10th and 11th centuries, one Devala provided for the reconversion in his *Devalasamhita*. But on the whole, these are exceptions rather than the rule.

In our cultural history we shall pay more attention to religion and religious ceremonies not because culture means religion but because in ancient times everywhere religion exercised an overwhelming influence on the lives of the people. There was hardly any aspect of one's life that was unaffected by religion. From one's birth till death religion was with him and religion was believed to be pursuing him still farther in the next world. So strong a hold of religion over life may have now diminished but it is still there and most of our beliefs and ideas, institutions and ceremonies are dominated by religion. An understanding of many of our customs and practices is difficult without knowing the religious background. Besides, on religion we have better data for reconstructing history. People seldom give up their religion nor do they allow any change to be introduced in their form of worship and prayer. For this reason the prayer and the

ceremonies continue almost unchanged for a very long time and hence through them we can read what the situation was thousands of years ago. Records of military and political events in India we have practically none but the religious literature has survived and for the most ancient period we have no other source except the religious literature.

CHAPTER II

BEGINNINGS OF INDOLOGY

Sir William Jones and the Asiatic Society. Discovery of Sanskrit. Comparative Philology. The bilingual coins of Bactria—Asoka inscriptions and the Brahmi script. Chronological difficulty—Alexander's invasion—the sheet anchor. Sandrokottas of the Greeks is Chandragupta of Sanskrit literature. Foreign sources of Indian History.

Upto the third quarter of the 18th century nobody in India or elsewhere knew anything of India's past history before the Moslem conquest. Moslem historians had written something of the Moslem conquest and rule in India but regarding the pre-Moslem period which means before A. D. 1000, not much was known. A vast Sanskrit literature in prose as well as in verse which included mostly religious code, legends, poetry and fiction were available but they were not reliable as history. Little genuine history of that period by Indians is available and either the Indians in the past neglected that branch of literature or if anything was done, that was completely lost in course of time. It is true that the ancient literature of India furnishes materials by means of which it is possible to trace the daily life of the people, their social systems, their religion, their progress in the arts and sciences, with a completeness which is unparalleled. For our purposes this is more important as these are the materials out of which the cultural history of the people can be traced. But events are rarely mentioned and there is an almost total absence of chronology. Warren Hastings compiled with the help of the Indian pundits a code of Hindu law for the purposes of administration, but nobody

in India was available then who could translate it directly into English. It was first translated into Persian and then through Persian into English. The first organised attempt by the Europeans in India for oriental studies was made when Sir William Jones who was a judge of the Supreme Court at Calcutta, established the Asiatic Society of Bengal at Calcutta in 1784. Sir William himself was a great scholar and he started learning the oriental languages including Sanskrit and Persian. After a few years he came to notice some close affinity between Sanskrit, Persian, Greek and Latin, and made the following announcement in a meeting of the Asiatic Society in 1786:

> "The Sanskrit language, whatever be its antiquity is of a wonderful structure; more perfect than the Greek, more copious than Latin and more exquisitely refined than either; yet bearing to both of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed that no philologer could examine them all without believing them to have sprung from some common source, which perhaps no longer exists."

The announcement was epochmaking. The European scholars versed in Greek and Latin began to take interest in Sanskrit and Persian, and made a comparative study of these languages. It gave rise to the science of Comparative Philology and the new science came to the conclusion that the finding of Sir William Jones was substantially correct. From the study of the languages it has now been established that all these languages known as Indo-European, were derived from some common source and the forefathers of the people using these languages and called the Aryans, must have lived somewhere together in some remote antiquity. For want of better materials scholars are not agreed as to the place from where these Aryans came, why they came and how they migrated.

Some believe that the Aryans came originally from Central Asia and one branch migrated towards Europe, their descendants being the Greeks, the Romans and the modern Europeans, and another branch settled in Persia (modern Iran) from where another sub-branch, for some reason migrated to the Punjab through the North Western Frontier. According to some scholars the original country is Scandinavia, according to some the Arctic regions, according to others the region where there is the Mediterranean sea; while according to some Indian scholars the cradle of Aryan civilization was in the Punjab known in ancient times as *Sapta-sindhu* or *the land of the seven rivers*. The basis of all these speculations is mainly philological, and for want of solid materials and definite evidence the controversy continued to be more or less a guess work. Rather, the tendency today amongst scholars is to discard all discussions regarding the original home of the Aryans and consider Aryanism to be mainly linguistic and cultural and not racial. In the meantime great interest was created by European scholars in the study of Sanskrit literature. Old manuscripts written on palm leaves were collected and published. From neglect and oblivion for centuries the classical literature of India "the discovery of Sanskrit" opened before the astonished world all her depth, variety and richness. But, for reconstructing history this one source was not sufficient. There were pillars, rocks, coins etc., on which were written so many things in a script which nobody could read. On the Asoka pillar at Delhi, on the Girnar Rock in Kathiawar as well as in so many other places there were inscriptions whose meaning was completely lost. The last man who could read them must have died some thousand years ago and the script used in these inscriptions had become completely obsolete. Phiroj Shah Tuglak (A. D. 1365) is said to have

engaged learned men to decipher the inscriptions on the Asoka pillar at Delhi but nobody could do it. Later, Akbar the Great attempted it without success. The script in which Sanskrit is written in modern times and is known as Devanagari is derived from an older type of Devanagari which again was derived from a type known as the Gupta script, which again was derived from one now called the Brahmi script. Printing press was unknown and hand-written books were available in different places so that in course of time the script could not remain unchanged. After a few centuries the script changed in different areas in such a way that it was difficult to know the connexion between the old and the new. So the Brahmi script which was prevalent in Asoka's time (3rd century B. C.) had completely changed and became Gupta script (A. D. 4th century) which again changed and became the old Devanagari. All the links and connexions were missing so that as early as the 11th century A. D. nobody could read the Brahmi script. However, some bilingual coins were discovered in Bactria. After Alexander's invasion these principalities which were part of India were ruled by Greek princes and there was a mixed population inhabiting those areas. Coins and inscriptions were issued in both the Greek and the Indian languages so that those might be understood by both, just as in modern India the coins contain words both in English and in some vernacular languages. These coins contained on one side some Greek words with legendary figures and on the other side the words in Brahmi script. Scholars who knew Greek could decipher the Greek version and the corresponding Brahmi letters were learnt by an intelligent guess. In the meantime photographs of many rock and pillar inscriptions were taken and brought together so that certain common letters were singled out. Again, as a result of

the untiring efforts of some European scholars some Gupta letters were deciphered and then gradually through them the Brahmi scripts; so that when the decipherment was complete most of the inscriptions could be read and understood and these rocks, pillars and coins began to tell the wonderful stories of ancient India.

But the chronological difficulty remained. From the contents of the inscriptions we know that such and such a king lived and did such and such a thing but we do not know the date because in various inscriptions as well as in Sanskrit literature, various eras are mentioned and we do not know what one era exactly corresponded to. For example, from one Asoka (Edict XIII) inscription we know that the same monarch sent missionaries to Antiochus Theos of Syria, Ptolemy Philadelphos of Egypt, Magus of Cyrene and Alexander of Epirus. The years when all these monarchs were reigning simultaneously are 261-258 B. C. and it proves this much that Asoka was a contemporary of these Hellenic rulers. But it does not say when Asoka was born and when he died. Without exact dates historical information remains vague and indeterminate. This difficulty of the exact chronology puzzled historians for a long time and at last the clue to the solution of this difficulty came from another source. Scholars familiar with Greek and Latin literatures knew that India was a country known to them and there are references to India in the classical literature of Europe. For example, from the Greek source it is known that Alexander the Great invaded India and came to the Punjab, that he had an encounter with a native prince called Poros, that he received submission from the ruler of Taxila, that his soldiers refused to accompany him farther east to the land known as Prasii. It is also

known that after Alexander, Seleucus had an encounter with one Indian king called Sandrakottos to whose court Seleucus sent a Greek ambassador named Megasthenes who stayed in the capital called Polimbothra and the same ambassador wrote a vivid description of what he then saw. The original book is lost but fragments of the same were quoted later by other authors in whose time the original book may have been available and these fragments have been compiled by one German scholar. But contemporary Indian literature is completely silent on this point. Nowhere in Sanskrit literature there is any reference to Alexander the Great or Seleucus or Megasthenes. Who this Sandrakottas might be and where was that land Prasii, of which the capital was Polimbothra? In *Shatapatha Brahmana* Magadha is referred to as *Prachya* and the scholars came to the conclusion that Prasii is no other than Magadha, Palimbothra is Pataliputra (modern Patna) and Sandrakottas is no other than Chandragupta. Alexander's invasion now synchronises with the reign of Chandragupta Maurya of Sanskrit literature. Similarly, new evidence came from China. Many books now lost in India, were translated in those times in Chinese and the sacred literature concerning Gautama Buddha, originally Indian, afterwards lost in India but preserved in the Chinese version, was available there. From these sources the date of Gautama Buddha's birth was available and connexion with Asoka's life, coronation, death etc., was also established. Other important events in Indian history and the dates of some Indian eras were also fixed. Meanwhile newer information on India's remote past began to reach the scholars. Max Mueller, the celebrated German scholar collected and published the Vedas. Searches for old manuscripts on Indian literature—religious, literary and scientific in

Sanskrit, Prakrit, Pali and Ardha Magadhi in India, in Tibet, in China and in other countries continued sometimes with success and sometimes without success. On occasions no manuscript was available but the Indian pundits were available who could quote verbatim the sacred texts from memory as they heard them orally from their

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teachers. Religious literature was transmitted in this way so that earthquake or cyclone, political upheaval or social revolution and burning of books and libraries could not completely destroy them. Unfortunately many treatises on important subjects are referred to in the available literature today but the original books are completely lost. This accounts for the scanty information we get on ancient Indian history except when religion is involved. In other spheres than literature, newer materials came to light. Fresco paintings in the caves of Ajanta, in Chinese Turkistan, the excavation at Gaya, Sarnath etc., the archaeological exploration of Mohenjodaro unearthed vast materials out of which the ancient history of India is reconstructed today.

CHAPTER III

INDUS VALLEY

An old civilization that was forgotten. Mohenjodaro—the Mount of the Dead. R. D. Banerjee's discovery in 1922. Indo-Sumerian civilization between 5000 B.C. and 2500 B. C. in the Indus Valley. Is the Indus Valley the cradle of civilization? No literary tradition but only archaeological evidence available. The script is undeciphered. Cosmopolitan commercial town—four racial types, planned city, well-built houses with wells, baths, drainage and dustbin. Irrigation and agriculture. Dress, ornaments, animals, pots and utensils. Religion—Shiva and Mother Goddess—phallus. In two respects I. V. C. superior to all contemporary civilizations—use of cotton-commodious houses and baths. Where they came from and where they had gone still a mystery.

The excavation of Mohenjodaro is a class by itself and it has, in the real sense of the word, opened a new chapter in Indian history. Formerly, Indian history was supposed to begin with the coming of the Aryans as practically nothing was known of the Indian people before them. The meagre account of the pre-Aryan Indians that the Aryan conquerors give us in Vedic literature led us to believe that they were low, degraded and servile compared with the Aryan conquerors and always called *Dasyus* and *Dasas*. They were no better than the helots of ancient Greece They were described as darkskinned, short, flat-nosed and speaking jargons and utterly contemptible. They were, it is true, good fighters, rich in cattle and lived in fortresses but these were thought to be no better than earth works. The Aryans were more primitive and

they did not give us any idea of the fact that these non-Aryans were living in well-built cities and enjoying a higher state of culture. Their inferiority was always taken for granted and in the language of Sir John Marshall in his preface to *Mohenjo-daro and the Indus Valley Civilization*,

"Never for a moment was it imagined that five thousand years before even the Aryans were heard of, the Punjab and Sind if not other parts of India as well, were enjoying an advanced and singularly uniform civilization of their own closely akin but in some respect superior to that of contemporary Mesopotamia and Egypt. Yet this is what the discovery of Harappa and Mohenjodaro has placed beyond question."

The discovery of Mohenjodaro is really epochmaking and the credit of this discovery goes to the late Mr. R. D. Banerjee. He came for the excavation of some old Buddhist temples in Sind where he found that the temple was built of bricks which were removed from some old ruins nearby. These bricks and some seals and coins found in that place gave rise to the suspicion that the ruins must have been far older than they were originally supposed. Similar bricks and some seals were found at Harappa in western Punjab but there, most of the bricks and other articles had already been removed and hence the materials were not sufficient for further enquiry. It has been said that one railway workshop was constructed by the bricks from the ruins at Harappa. This is also true in other places. For example, at Sarnath near Benares where Buddhistic relics have been explored, there were ruins, and local people used to dig out bricks for construction purposes whenever they required and this led one Government official to suspect that there might be some

ancient ruins of archaeological interest and eventually the ruins were carefully explored by the Archaeological Department. Fortunately at Mohenjodaro everything was practically intact and the Archaeological Department unearthed before the astonished world the ruins of a civilization older than the one hitherto known.

The word Mohenjodaro in the local language means the *Mount of the Dead.* In the Larkhana district in the Province of Sind 7 miles by road from Dokri on the N. W. Rly., lie the ruins of a big and once flourishing city, well built and scientifically constructed and the excavation has unearthed the walls, the sites of buildings and houses made of burnt bricks, broad and metalled roads often at right angles, excellent drainage and bath. Skeletons of human beings and animals, coins, seals, ornaments, utensils, pots and articles of household use have been found and scientists have collected materials for writing a history of the wonderful people that once lived in this region. From other sites and ruins in the region comprising Sind, Baluchistan, the Punjab and the North West Frontier Province and possibly Afghanistan, it is now established that a flourishing civilization existed there roughly in the fourth millennium B. C. long before the Aryans came and historians have called it the Indus Valley Civilization. The controversy as to the country which was the cradle of human civilization is still an open one. Breasted thought it was the Nile valley of Egypt; Will Durant thought it was Sumer. Patriotic Indians may not be far away from truth when they held that India was the cradle of human civilization. The most striking thing that Mohenjodaro revealed is that it was not an incipient civilization. It was already well developed and old. The excavations have shown that there are several layers of the ruins on which

the successive cities were constructed one after another, when occasional flood had devastated the existing one. This means that thousands of years must have passed before the final city was constructed on the surface. The original city on the lowest layer must have been one of the oldest towns ever built in any part of the world. On such controversies one cannot be definite and should not dogmatically hold any view. The surmise is that it may be India from where civilization spread in other parts of the world. The people of Mohenjodaro were probably Dravidians and even now there is a people in Baluchistan that speaks Brahui, a Dravidian dialect. At present people speaking the Dravidian tongue are to be found in the South of India and it seems possible that there was connexion between the people of South India and Mohenjodaro though we cannot say from which direction the movement started — from the Deccan to Mesopotamia through Sind and Baluchistan or the other way about. According to H. G. Wells the first human being was evolved somewhere in the South East of Asia. It may be that the forefathers of the human race may have lived for centuries in the South of India, may have passed the Paleolithic and the Neolithic Ages, the traces of which are available and at long last may have developed the beginnings of civilised life of whom Mohenjodaro may be one relic. The history of human beings in prehistoric times is generally divided into several periods on the basis of the tools which they used as no other materials are available. Thus the earliest period is the Paleolithic or Old Stone Age. Evidence of the Paleolithic man is available in the Deccan. The second is the Neolithic, or New Stone Age whose evidence is also available. Next comes the Copper Age, then the Bronze Age and lastly the Iron Age. In the Deccan there was no Bronze and Copper Age and these metals along

with iron were used at the same time. It may mean either that no Bronze or Copper Age intervened between the New Stone Age and the Iron Age or that iron was of indigenous use in the Decan before its use was known elsewhere in the world.

A more sober opinion on this subject is that of Sir John Marshall who, regarding the discovery of Mohenjodaro says, "It is in regard to the early civilization, not of India alone but of the whole Ancient Orient that these new discoveries seem likely to revolutionise existing ideas. The importance of the role played by the Paleolithic man in India has long been recognised and from a topographical comparison of Paleolithic and Neolithic artefacts the inference has been drawn that it was actually on Indian soil that the latter were first evolved from the former Be this view correct or not, there can be no question that the North West of India with its vast, well watered plains, with its abundance of game, its warm but variable climate more populous perhaps then than now—and with its network of rivers affording ready means of communication and intercourse must have offered a specially favourable field for the advancement of early society, alike when man was in the hunting stage and later when he turned himself to agriculture and the domestication of animals or was opening up commerce with distant lands. At present our researches carry us back no further than the fourth millennium B. C. and have lifted but one veil that hides this remarkable civilization but even at Mohenjodaro there are still several cities lying one below another, deeper than the spade has yet penetrated and though the permanent rise of the subsoil water precludes the hope of our ever being able to explore the earliest settlement on this site, it can hardly be doubted that the story already unfolded

will be carried still further back on other sites of which there are a multitude waiting to be excavated in Sind and Baluchistan. One thing that stands clear and unmistakeable both at Mohenjodaro and Harappa is that the civilization hitherto revealed at these two places are already age old and stereotyped on Indian soil with many millenia of human behaviour behind it. Thus India must henceforth be recognised along with Persia, Mesopotamia and Egypt as one of the most important areas where the civilizing process of society was initiated and developed. I do not mean to imply by this that India can claim to be regarded as the cradle of civilization; nor do I think on the evidence at present available, that claim can be made on behalf of any one country in particular. In my view the civilization of the Paleolithic and succeeding ages resulted from the combined efforts of many countries, each contributing a certain quota towards the common stock of knowledge. From the Neolithic if not the Paleolithic Age onwards the most populated regions were undoubtedly the great river valleys of South and South West Asia and Northern Africa where the cold was never severe, where food and water were ready to the hand of man, where pasturage was good, irrigation feasible and communication easy along the courses of natural waterways. In each of these river valleys on the banks of the Nile and the Euphrates as on those of the Karun, the Helmund or the Indus mankind may be assumed to have had equal chances of development and it is natural to suppose that progress in one direction or another was being made in all these regions simultaneously and doubtless in many other sites. If this view which is the most natural one, be accepted, if we regard this wide civilization of the Afrasian belt as formed in various countries and develop[redacted]

efforts of different peoples, we shall better understand how, despite its general homogeneity, it nevertheless comprised many widely differing branches, each of which, in its own sphere, was able to maintain its local and individual character." All these, however, are more or less guess work. We do not exactly know where the Mohenjodarians came from, what they exactly were, what were the forms of government, social structure, philosophy; by whom were they subdued and in course of time superseded. Only some people speaking the Dravidian tongue or Brahui still live in Baluchistan; the Dravidian people with their culture still flourish in the South of India and modern Indian religion and culture bear even today indelible marks of Mohenjodarian life and institution.

The innumerable seals and coins discovered at Mohenjodaro contain many pictographic inscriptions which unfortunately are still undeciphered. The Egyptian hieroglyphics have been deciphered and understood. So is the old Persian cuneiform but the script of Mohenjodaro is still a mystery and unless some bilingual inscription is found it will be difficult to read them. At the present state of our knowledge, therefore, everything concerning Mohenjodaro, has to be gathered from the ruins, monuments, skeletons, pots, utensils etc., as they were found. In the case of Rigvedic India we have a brilliant and reliable literature and tradition but absolutely no archaeological materials, and in the case of Mohenjodaro we have absolutely no tradition and literature but only the archaeological materials which nevertheless are not less important as the application of modern science has given in some respects better information. There is no doubt that most of the riddles of this civilization will be solved as soon as the inscriptions are deciphered.

From the seals, pots and other articles at Mohenjodaro it is now established that the Indus Valley civilization was related with the Sumerian civilization and as common articles are found in both, it is believed that there was free communication and trade relation although it is difficult to say in which direction civilization went—whether from the Indus Valley to Sumer or from Sumer to the Indus Valley. Some five seals have been discovered in different sites in Elam and Mesopotamia; it shows a brisk trade relation and intercourse between these countries. As it is known that the Sumerian civilization preceded the Aryan, the Indus Valley civilization is considered to be much older than the Aryan civilization and on a rough estimate the period of this civilization is put between 5000 B. C. and 2500 B. C. The town of Mohenjodaro must have been a cosmopolitan commercial one where people from so many parts came and the skeletons now discovered indicate that the population included at least four racial types and that civilization was the offspring not of any one race in particular but of several. Some authorities have conjectured that the Mohenjodarians may have formed a part of the great Mediterranean race, that their original home probably was in Libya whose people spread over the southern countries in Europe and Egypt in its pre-Dynastic age and that this culture was brought to India by the Libyans who were later called Dravidians after their mixture with the Negroites and Kolarians who were inhabiting India at the time of their arrival. Occasional flood may have troubled the people and it seems that the city was left several times and each time a new city was built over the ruins of the old. The whole city was surrounded by walls and entrance was possible only through the gates. The city had an organised municipality, the wide and well-built roads running from east to west and

north to south intersecting at right angles. It was provided with regular water supply and excellent drainage system. The construction of the houses and the streets with the system of drainage in that remote antiquity indicates an efficient town planning and engineering. The houses were of different size with rooms on the ground floor without windows on the road side; the rooms on the upper floor must have been used for dwelling purposes. Every house practically had a well and a bathroom and there was provision for dustbins which indicates an improved standard of sanitation. There were big buildings and the purpose for which they were used cannot exactly be ascertained. Possibly they were meant for congregational religious performances or some administrative purposes. Besides every house containing a bathroom, there was found one great Public Bath which appears "to have been a great hydropathic establishment" and the most imposing of all the remains ever unearthed at Mohenjodaro. Its plan is simple; in the centre an open quadrangle with verandahs on its four sides and at the back of them three verandahs and various galleries and rooms; on the south a long gallery with a small chamber in each corner; on the east a single range of small chamber including one with a well; on the north a group of small halls and fair-sized rooms. In the midst of the open quadrangle is a large swimming bath, some 39 feet long, 23 feet broad and sunk about 8 feet below the paving of the court, with a flight of steps at either end and at the foot of each row a platform for the convenience of the bathers who might otherwise have found the water too deep. The layout and the construction of the Bath is almost perfect and it indicates the high degree of excellence in architectural planning and execution.

The people must have been commercially very advanced with well developed irrigation and agriculture. Masses of people such as priests, physicians, astrologers, artisans, shopkeepers, traders, supervisors of municipality and the State and cultivators must have lived there. Use of cotton and wool was known. The usual dress consisted of two pieces of cloth—one round the waist covering upto the leg and the other thrown over the left shoulder and passing under the right arm—not unlike the fashion in some places even now. Men kept beard and whiskers and the upper lip was shaved. Ornaments consisted of necklace, fillets, armlets and finger rings. For the rich these were of gold and silver, and for the poor of copper or shells and terracotta. People must have used as food beef, mutton, pork, poultry, fish and turtle as well as milk, vegetable and fruits. Some fermented liquor must have been used. Cultivation was with the plough; the hoe was not found. Irrigation was known. For fighting they must have used axes, spears, daggers, bows and arrows, clubs and slings. The chariot on wheels must have been known but it appears that iron was not used. They cultivated wheat and barley as well as date and palm. They domesticated the humped zebu, buffalo, and short-horn bull besides the sheep, pig, dog, elephant and camel but the cat and the horse were unknown. For transport they had wheeled vehicles, to which oxen doubtless were yoked. They were skilful metal workers with a plentiful supply of gold, silver and copper; lead and tin were in use but the latter was only alloy in the making of bronze. With spinning and weaving they were conversant. The sword they had not yet evolved nor any defensive body armour. Among their other implements, hatchet, sickles, sows, chisels and razors were made both of copper and bronze; knives and celts sometimes of these metals, sometimes of

hard stones. For the crushing of grain they had the muller and the saddle quern but not circular grind-stone. Their domestic vessels were commonly of earthenware turned on the wheel and not infrequently painted with encaustic design; more rarely they were of copper, bronze or silver. With the art of writing the Indus Valley people were familiar and employed for this purpose a form of script which though peculiar to India is evidently analogous to other contemporary scripts of Western Asia and the Near East.

Much can be guessed on the religion and the religious beliefs and practices of the people of the Indus Valley. A figure is found in the usual Hindu Yogi position and it has been identified with Shiva. The figure of the Mother Goddess almost naked has also been found and it is believed that the worship of the Mother Goddess must also have been prevalent. The worship of Shiva and Kalika is widely prevalent in many parts of Hindu India and there is reason to believe that these deities and the forms of worship in modern Hinduism must have come through the Mohenjodarians and these must have been older than the Vedic gods and goddesses. Tree and *Linga* (phallus) worship was also known in those times; sacrifices were offered to them and human sacrifice was not unknown. The Mohenjodarians used mostly to burn the dead bodies and then preserve the ashes in burial urn as is the practice even now in many places. Though this was the usual form, burial underground and disposal of the dead bodies by birds as it is the practice with the Parsees today, might also have been in vogue.

The Indus Valley civilization fills up an important gap in Indian history. Of course, no literature, no documents and no legible inscriptions are available but certain

conclusions are unassailable. The people who could plan and build towns with houses, streets, paths etc., as they had done, and the various articles of use made of gold, silver, copper, must have been highly civilised; certainly more civilised than the Vedic Aryans. In some respects, as Sir John Marshall observes, "the Indus Valley civilization was superior to the Sumerian, or Egyptian civilization or any other civilization in any part of the world in that period. The use of the cotton was exclusively restricted at this period, in India and was not extended to the Western world until two or three thousand years later. Again, there is nothing that we know of in prehistoric Egypt or Sumer or anywhere else to compare with the well-built baths and commodious houses of the citizens of Mohenjodaro. In those countries much money and thought were lavished on the building of magnificent temples for the gods and on the palaces and tombs of kings but the rest of the people seemingly had to contend themselves with insignificant dwellings of mud. In the Indus Valley the practice is reversed and the finest structures are those erected for the convenience of the citizens. Temples, palaces and tombs there might have been but if so they are either still undiscovered or like other edifices as not to be readily distinguished. We are justified in seeing in the Great Bath of Mohenjodaro and in its many and serviceable houses with their ubiquitous wells and bath-rooms and elaborate system of drainage, evidence that ordinary townspeople enjoyed a degree of comfort and luxury unexampled in the other parts of the civilized world."

"Equally peculiar to the Indus Valley and stamped with an individual character of their own are its arts and religion. Nothing that we know of in any other country

at the period bears any resemblance, in point of style to the miniature faience models of rams, dogs, and other animals or to the intaglio engraving on the seals, the best of which—notably the humped and short-horn bulls—are distinguished in glyptic art; nor would it be possible, until the classic age of Greece, to match the exquisitely supple modelling of the two human statuettes from Harappa. In religion there is much of course that might be paralleled in other countries. This is true of every prehistoric and of the most historic religions as well. But taken as a whole their religion is so characteristically Indian as hardly to be distinguishable from still living Hinduism or at least from that aspect of it which is bound up with animism and the cult of Shiva and the Mother Goddess Shakti—still the two most potent forces in popular worship. Among the many revelations that Mohenjodaro and Harappa had in store for us none perhaps is more remarkable than this discovery that Shaivism has a history going back to the Chalcolithic Age or perhaps even further still and that it takes place as the most ancient living faith in the world."

The Rigvedic Aryans who migrated to India must have come in contact with the Indus Valley civilization but no record of their conflict is available except that in the Rigvedic literature we find the Aryans talking of their enemies the darkskinned non-Aryans whom the Aryans fought and cursed and abused as Dasas. It is not likely that the Rigvedic Aryans would say anything in favour of their enemies. All we understood is that these people gave them a stiff resistance. The Aryans came into India in hordes, fought their way gradually and settled in the Punjab first, from which they spread east and south. No open and decisive battle in the modern sense might have

taken place. The Mohenjodarians had settled lives in towns, whereas the Aryans were nomadic pastoral people used to outdoor life and hardship. They had physical strength, vigour and resourcefulness. The Aryans knew the use of iron, horses and chariots. All these may account for the eventual triumph of the Aryans. But how exactly that took place nobody can explain. Though Aryan culture has finally triumphed some elements of Mohenjodarianism persisted and ultimately were absorbed.

CHAPTER IV

THE ARYANS

The Aryans—their original migration. All our information mostly based on Comparative Philology. Definite history from the 6th century B. C. The Vedic literature—its importance, earliest Aryan literature—meagre as political history but information on religion and culture not negligible. The preservation and transmission of this literature. Defect of the system of oral transmission—not a peculiarity of India alone; scarcity of writing materials—the situation in Greece at the time of Pythagoras. What are the Vedas? Why ancient India produced no historian? The view that India was rich in religion and philosophy but backward in science and industry. The four Vedas—Rig, Sama, Yajur and Atharva; the Samhitas, — the Brahmanas and the Aranyakas: the Upanishads—how first introduced in Europe; some philosophical ideas of the Upanishads. Some 1000 years must have passed between the earliest Rigvedic hymns and the latest Upanishads. The change noticeable from internal evidence. The various deities change. Reaction against ritualism. Social and political conditions —the caste system, industries, games, position of women—the beginnings of Varnashrama.

The Aryans were a gifted people. We are not sure when and where they first originated. From the comparative study of languages we know that the forefathers of the Indians, the Persians, the Greeks, the Romans and other Europeans talked the same language and *possibly* lived in the same place. In course of thousands of years they separated and developed different languages and

became different peoples and nations. The generally accepted opinion until recently was that they originated somewhere in Central Asia, were a nomadic tribe and lived a pastoral life. For some reasons, may be due to an increase of population and scarcity of grazing ground for the animals or internal feud or pressure by other tribes or change of climate they began to migrate. One branch went to Europe and another branch came to Persia. From Persia again, one sub-branch began to penetrate towards the South East and gradually settled in Afghanistan, North West Frontier and the Punjab. This area they called the *land of the seven rivers* (Sapta Sindhu). From this area they gradually spread their culture, first to Upper India known as Aryavarta i.e., the land of the Aryans and then towards the East called Prachya and towards the South called Dakshinatya. This extension of the Aryan culture does not mean that the Aryans physically and in masses migrated to these regions. Some Aryans undoubtedly migrated and came to settle there but the important thing that happened was that the Aryan language, forms of worship, social institutions, ideas and beliefs, superseded generally those of the local inhabitants. In this sense the whole of India in different degrees was Aryanised. All speculations on the origin and migration of the Aryans and their settlement in the Punjab covering a period of a few thousand years are mainly based on Comparative Philology. For example, certain common words have indicated that the ancient Indians, the Persians, the Greeks etc., had lived together and the names of gods and goddesses indicated that the form of religion and worship was basically the same. Similarly, the names of some domestic animals, agricultural things and certain customs indicated that they were a nomadic people with a pastoral life. In the case of the primitive Egyptians, the main source of our

knowledge of them was the innumerable dead bodies found buried with various articles, and historians have gathered how they lived, what they ate and wore, and how they fought and worshipped. In the case of the Indus Valley civilization also, our source of information consists of the archaeological ruins with numerous articles found buried under earth there. For the Aryans when they first came and settled in the Punjab we have absolutely no such evidence. Our main source of knowledge is a literary tradition consisting mainly of prayers, charms, incantations and sacrificial formulas. But things become somewhat clearer and definite as we proceed with the Aryans in the Punjab. The language of the Avesta of the old Persians and the Rigveda clearly indicate that these people lived for a pretty long time together before they parted and the internal evidence of the Rigveda clearly shows how the Aryans moved further and further in India but it was not until the 6th century B. C. when Gautama Buddha and Mahavira preached their religion that we are more or less definite of our conclusions.

In a sense, the Aryans were not a very highly civilized people. They did not know the alphabet, nor mathematics; they knew little of the sciences. They did not know how to build cities, organise trade and commerce. But they had indomitable energy, undaunted spirit and love for fight and adventure. They explored newer countries, fought against nature and subdued enemies. They practised their religion with a peculiar fanaticism and though primitive, displayed great strength, vigour and resourcefulness. Arts and sciences they had not much and they seem to have carried with them wherever they went their language, forms of religion and worship, and certain beliefs and ideas. In course of thousands of

years that have passed, it is difficult to notice anything common between a German and an Indian but the traces of their common language persist. Physically these people wherever they went must have mixed with the local people and there has certainly been an intermixture of blood to a greater extent than is ordinarily believed, so that the physical features have also changed. Yet nobody can deny the fact that there is a close noticeable affinity amongst the Indians of the Rigveda, the Persians of the Avesta, the Greeks of Homer and the Romans of Romulus and Remus.

The word Aryan nowadays has a restricted meaning. It refers to only those who migrated and settled in the Punjab in the Rigvedic period. They are also called Indo-Aryans to distinguish them from their European brethren.

Of the Aryans our source of information is the Vedic literature. No architecture, no coin, no inscription of that period is available. But fortunately, this literature is fairly reliable and exhaustive for our purposes and it has thrown a flood of light on the religion, society, customs, ideas and beliefs and the economic conditions of the people. It is true that the Vedic literature contains no chronological and political history of the period and under the conditions prevailing in those times no such history is possible. But the Vedic literature truly reflects the mind of the people, what they thought and felt, how they lived and how they fought. The Vedic literature is the oldest literature of the Aryans. Other civilizations have preceded the Aryan civilization but no other civilization has left a literature so vast and developed. In this sense the Vedic literature has its unique value for the world. From it we can know the source and development of

most of the things the Indo Europeans in course of thousands of years have done and we can trace the origin of most of our institutions. From the Vedic literature we can understand the evolution of religion and religious ideas, how gods and goddesses in the unsophisticated mind grow and change, and it shows in a fascinating way how fear, admiration, excitement, love, sympathy, rivalry etc., give rise to legends and mythology in the mind of primitive men. No other literature in the world is so old and large and no other literature in the world can rival it in understanding how the mind of the primitive man developed and worked.

Nor is the preservation and transmission of the Vedic literature less striking. It is believed that the art of writing was not yet invented when the Vedic poets and seers called *Rishis* first composed the hymns. Even when at a later stage the script was invented and writing came to be introduced slowly and gradually, the Vedas were not put into writing and no written records were ever kept. These hymns and prayers composed orally in inspired moments, were taught from father to son and from preceptor to pupil, generation after generation simply through the words of the mouth so that they came down practically in their original form without any alteration in pronunciation, accent, tune and rhyme. Thousands of years have passed and India has passed through so many revolutions and has been subjected to foreign invasion in course of which temples, libraries, books and museums have been burnt, damaged and destroyed but the Vedas continued from mouth to mouth undisturbed. As Rapson observes.

"If all the manuscripts and all the printed copies were destroyed, its text could even now be recovered from the

mouths of living men, with absolute fidelity as to the form and accent of every simple word. Such a tradition has only been possible through the wonderfully perfect organisation of a system of school of Vedic study in which untold generations of students have spent their lives from boyhood to old age in learning the sacred texts and in teaching them to their pupils. This is, beyond all question, the most marvellous instance of unbroken continuity to be found in the history of mankind."

But this marvellous system had its defects also. The prayers and incantations could be transmitted orally from father to son, and philosophy and law through sutras also could be easily learnt by heart. But there were many practical arts and sciences which could not be taught orally but had to be learnt by prolonged practical apprenticeship. These were generally considered sacred and hence secret; these were not taught to any body outside the family circle. The result was that if one had no son the art which he knew would not be transmitted at all but would be lost for ever. In this way many practical arts and sciences are completely lost. We know practically nothing of them except inferentially that once these were well developed. Nor is the marvellous system of oral transmission of knowledge unique in India. Pythagoras (540 B. C.) like Thales, never embodied his doctrines in writing. He transmitted his theories by word of mouth. This method was due not merely to a spirit of mysticism but was as dependent upon a lack of good writing materials. Parchment had not yet been invented, the wax tablet was serviceable for brief epistles, the clay cylinder of Babylon was subject to similar limitations. The fragile papyrus of Egypt was rarely available elsewhere. Pythagoras, therefore, followed the custom of the time just as

the ancients had transmitted to his generation the songs of Homer. Even in Plato's time there was no bookshop in all Athens nor was there any when Euclid taught at Alexandria. Not until in the time of Augustus was the book trade begun and not until 1500 years later was printing known in Europe.

So this marvellous system of transmission of knowledge for thousands of years has its limitation also. To learn certain things by heart and transmit them orally generation after generation is excellent but not to keep any written record at all is something which cannot be appreciated. As late as the 4th century A. D. the Chinese traveller Fa Hien had to move from Taxila to Patna in search of the Buddhist Tripitakas but no written document was available. Learned men who could quote from memory were, however, available. In those times if there was any controversy people would borrow a pundit who could quote verbatim from memory just as we nowadays borrow the book from the library.

We should know what the Vedic literature is and what it is not. It is definitely not history. The same scholar whom we just quoted, regretted that ancient India had no history. "Indian literature, Sanskrit, Pali and Prakrit, is enormous in extent and most varied in character. No specimen of composition, whether in prose or verse, is unrepresented and few phases in human intellectual activity remain without their record except in the domain of those sciences which have been even in Europe, the creation of the last two hundred and fifty years. But if we compare any ancient Indian literature—Brahmin, Jain or Buddhist with the Greek and Latin classics, we shall find one striking deficiency; in none of them has the art of historical composition developed beyond its

earliest stages... Ancient India has no Herodotus or Thucydides, no Livy or Tacitus." The deficiency really is unfortunate but we can explain the situation. The Brahmins in ancient India as in all other ancient societies, were primarily concerned with religion and things connected with religion. Other subjects of study were less valued. Kings and princes kept royal bards who composed ballads to be sung in commemoration of heroic deeds of the rulers. Regular accounts of the past were also recorded but these being secular and not spiritual people did not always remember them by heart as they did with the religious literature so that in course of time due to war and devastations caused by men as well as by nature, all these records must have been completely lost. Our wonder today is not for what is missing but for what has actually survived the onslaught of time and at last reached us.

This again, accounts for some false notions amongst oriental scholars. India is indebted to those European scholars who practically restored the Vedas and made materials available for the reconstruction of ancient Indian history but they are also responsible for passing into currency the notion that ancient India was rich in religion and philosophy but she contributed nothing towards material progress and towards the positive sciences. The result has been that sufficient care was not taken to explore India's past in those subjects. Sources, however, are gradually being made available which indicate that India in ancient times achieved greatness in other spheres also. Scholars are now in a better position to hold that apart from religion and philosophy, in material prosperity and civilization, in arts and crafts, sciences and industries, ancient India was not inferior to any other

ancient people except possibly Greece in the classical period.

The word Veda literally means *to know* and from this sense the Vedas in the plural means knowledge, and they consist of a mass of literature both prose and verse, composed in course of centuries by different persons. The oldest of the Vedas is the Rigveda which consists of 1028 hymns divided into ten books. Some of these hymns are included in the Sama Veda and these along with other new ones are set to tune to be sung. The third of them is the Yajur Veda which, again, is divided into two—the White Yajur Veda and the Black Yajur Veda. The fourth and the last is the Atharva Veda which includes charms and incantations against demons, snake bite etc., and are so different from the other three. This was obviously composed at a later stage and does not command so much respect as the other three do and from internal evidence it seems that the Atharva Veda consists of many non-Aryan elements as a result of the contact which the Aryans had with the native non-Aryan people. Many words and expressions in it were meaningless before but after the lead given by Bala Gangadhar Tilak these meaningless jargons have become intelligible.

Not only were hymns and prayers composed for the gods and goddesses, but sacrifices were also made for them and gradually certain rites and ceremonies sprang into existence. The priestly classes practised them with primitive fanaticism and these became a specialised branch of knowledge. So a broad division takes place. The *Samhita* or the Collection consists of the hymns, prayers, sacrificial formulas and utterances, and the *Brahmana* consists of instructions and directions to be followed in actual sacrifices. This second division was the main guide,

for the priestly class the Brahmins and on occasions they give elaborate details to be followed. Though otherwise useless and sometimes disgusting these details are important for students of history. From them we can learn many things regarding the life and things that existed in those times. Besides these two divisions of the Vedas, there is the third division called *Aranyakas* which means the speculations and observations made by those Aryans who retired from worldly affairs into the secluded forest and devoted themselves to spiritual contemplation. They were less concerned with the formalities of sacrifice and worship but they thought, as men with a mind in all the ages have thought, over many fundamental problems of life: What is this world? What is life? Is there anything beyond death ? How to overcome the miseries and unhappiness of this world? These were some of the questions which set many bold and vigorous Aryans after they had retired from active life to thinking and speculation. The Upanishads of this division contain the philosophical speculations of the Aryans. While many of the hymns are meaningless to us and most of the rites and ceremonies of the sacrifice are completely useless to all, these Upanishads contain profound thoughts which they struck men in all ages and in all countries. They have not become useless and out of date and are never likely to be so.

How the Upanishads came to be introduced in Europe is an interesting story. Dara, the eldest brother of Aurangzeb, heard of them while in Kashmir and with the help of pundits from Benares he translated some of them into Persian. Through Le Gentil, the French Resident at Faizabad at the court of Shiya-uddaulah in 1775, Anquetil Duperron, the discoverer of Zend Avesta, received a manuscript and translated it into Latin in 1801-2. The celebrated

German philosopher, Schopenhauer was profoundly influenced by it, though the Latin translation is largely unintelligible. He expressed the opinion: "In the whole world there is no study except that of the original so beneficial and so elevating as that of the *Oupnekhat*. It has been the solace of my life, it will be the solace of my death."

The Upanishads were composed by various seers in different times. Some of them are very old while some are recent. Some of them contain nice poetic language while some contain abstruse philosophical speculations and all of them are also not agreed on most controversial topics. Yet certain ideas regarding soul, heaven, god, life after death etc., underlie most of them and all Hindu philosophy developed later is based on the teaching of the Upanishads.

In one Upanishad the subject matter is unfolded in the form of a story. One small boy, Nachiketa observed that his father, after some religious ceremony, gave away by way of charity old cows to Brahmins. As old cows would serve no useful purpose he was sorry for it and repeatedly asked his father to whom his father would give Nachiketa. The angry father replied, "I shall give you to Yama, the god of death". The boy took the matter seriously and went to Yama, the god of death and wanted Yama to explain the mysteries of death to him. Death is an eternal mystery and the early Hindu philosophers meditated upon this eternal question and realised certain truths which are explained in the same Upanishad. It is held that each living being has a soul which never perishes. Death is like a change of dress. Just as a man puts off his old clothes and wears new ones, similarly the soul lives in one body for some time and then the body perishes but the soul takes another body and enjoys a better or worse life according as he did good or bad work in his previous

birth. This is the theory of *karma* and the *transmigration of the soul.* Ultimately there is only one Real Being behind all the ephemeral unrealities of this world. God is One though seers call Him in different names. He is the Supreme Soul and all beings get merged in Him wherein lies eternal bliss. God is conceived of as one Supreme Being of whose shape and form and other attributes nobody can say any thing. Realisation of God is like eating some thing by a dumb. A man without the power of speech eats and enjoys the thing but he cannot express. Similarly, one may realise God but he cannot express what he has realised. Further, God embraces everything. A piece of salt kept in water after some time vanishes. It does not mean that the salt has completely disappeared. It is in every drop of water and when one tastes water he realises that the salt seemingly nonexisting, actually exists.

Thus the Vedas contain a vast mass of literature with a variety of subjects. They were not composed by any single person on any particular day. Between the earliest Rigvedic hymns and the latest Upanishads more than a thousand years must have passed and the literature was still growing till roughly the 8th century B.C. when *sutras* came to be used for learning and remembering the various branches of the Vedic lore. A *sutra* means an aphorism. It is the most concise way of expressing an idea. The sutra literature does not form part of the Vedas but they explain to the future generations the sense and meaning of the Vedas. They put things in a nutshell in the form of one formula which unless explained and interpreted is unintelligible but which by its concise nature is very suitable for learning by heart. Later, this system became more prevalent and not only for learning the Vedas but for learning all other subjects

the sutra system came to be used. From this period the Vedas ceased to be growing and came down finally cast and compiled in its present form up to the present time. The conclusion that more than one thousand years must have passed between the period of the earliest Rigvedic hymns and the period when the latest Upanishads were composed is based on the internal evidence of the Vedas. In the earliest hymns hills, rivers and places lying on the west of the Punjab are mentioned and seldom do we get any reference to the Ganges and the Jumna. Not only the geography, even the character of the Vedic gods and goddesses as well as the religious rites and ceremonies begin to change. Some of the older gods viz., Marut are going into oblivion and newer gods viz., Indra become more important.

How this gradual change was taking place can be briefly described. To the earliest *Rishis* the various aspects of Nature were objects of wonder and worship and each became a deity. The sky was naturally the most prominent and as the sky assumes various aspects various deities were conceived. The oldest is *dyu* (literally shining) the Zeus of the Greeks, the first syllable of Jupiter (Sanskrit *Dyaus Pitar*) among the Romans, the Tiu of the Saxons and the Zio of the Germans. This common name among many Aryan races indicates that the deity was worshipped by the ancestors of all these people in their first primeval abode in Central Asia. But while Zeus and Jupiter maintained their supremacy among the gods of Greece and Rome, in India he soon lost his place and the sky in one of its peculiar functions soon usurped his place. For in India the annual rise of rivers, the fertility of land, the luxuriance of crops depend not on the sky that shines above us but on the sky that rains and *Indra* which

means the rain-giver soon became the first among the Vedic gods.

Another ancient name of the sky was *Varuna*, the Uranus of the Greeks. The word signifies *to cover;* and Varuna was the sky which covered the earth, probably the sky without light, the noctunal sky. For we find another name for the bright sky of the day viz., Mitra, the Mithra of the Avesta. Sanskrit commentators naturally explain Varuna as night and Mitra as day and the Persians worshipped the sun under the name of Mithra and gave the name of Varuna to a happy region if not the sky.

It appears that Varuna as a god of sky was known to the ancestors of those Aryan nations before they migrated to Greece, to Persia and to India. It is held that before the Indo-Aryans and the Persians separated, Varuna was the highest and holiest of the gods of their common ancestors and represented the spiritual side of their religion. After the separation had taken place, this deity of righteousness was, it is alleged, translated into Ahura Mazda, the Supreme Deity and although in India Varuna yielded the foremost place among gods to the young and vigorous rain giver Indra, still he never became divested of that sanctity and holiness which entered into his first conception and the holiest hymns of the Rigveda are his. not Indra's.

The most famous legend about Indra, the most famous in the Aryan world, is about the production of rain. The dark heavy clouds to which man looks up with wishful eyes but which often disappear and disappoint him in seasons of draught, are called by the ancient name *Vritra.* He is supposed to confine the waters and will not let them descend until the sky god or rain god Indra strikes the monster with his thunderbolt. Many are the spirited

hymns in the Rigveda in which this combat is narrated. These legends appear elsewhere also. Vritraghna, the Slayer of Vritra of the Rigveda is Verethraghna of the Avesta.

Soon, myths and legends began to develop and the simple sacrifice to the gods now became elaborate rituals. The bright dawn excited the primitive admiration of the Rigvedic Rishis and we notice the outbursts of poetic feelings in the form of hymns and prayers to the dawn. At a later period this natural phenomenon is personified as a goddess and is called *Usha* and she is offered sacrifices. At a still later period myths and legends began to be fabricated and these with their seeds in the Vedic literature gave rise to well-developed mythology of the later classical period. As, however, the simple prayer and sacrifices were developing into legends based on wild imagination and elaborate and meaningless rituals with animal sacrifice on a huge scale and the Bramhins were practising them with fanaticism, reaction started. We can notice in the later Upanishads. Rishis with purer hearts and cleaner thoughts challenging these meaningless rituals and speculating on more deep and fundamental problems of life. The seed of the future reaction that developed against Brahmanism in 600 B. C. under Mahavira and Buddha, can be noticed in the later Vedic literature itself.

Traces of certain ideas we get in the Rigvedic period and by the later Upanishadic period they are more developed. Though the Rishis conceived of many gods and goddesses yet we come across the idea of One Spirit pervading the universe and underlying the multiplicity of deities. Similarly, the conception of the transmigration of the soul was just growing. But idols and temples were yet unknown. Religion was, however, mostly unconnected with

morality. Perform the sacrifices properly and the gods will be satisfied and they will give you all you want—you need not control your passions, or practise charity or cultivate righteousness or devotion to God. This was more or less the idea. In society and government also, new changes can be noticed. The distinction at first was between the Aryans and the Dasyus, which corresponded roughly with that between the Aryans with their religion of sacrifice and the other races who were of non-Aryan origin and did not practise the Vedic sacrifices. Later, the Aryans came in contact with the dark-skinned natives who were short-sized, flat-nozed, without Vedic rites and speaking jargons which the Aryans could not understand and these came to be known as the Dasas. These Dasas gradually came to be absorbed into the Aryan fold but they were never given the status of the proud Aryans who were called the *twice born*, which means that after the normal birth an Aryan has to be educated and initiated into the mysteries of Vedic knowledge and this amounts to a second birth as it were. The Dasas were excluded from this knowledge and they formed the lowest caste like the helots in ancient Greece. The caste system has not, however, developed. The twice born Aryans were divided more or less on the basis of division of labour into three classes viz., the Brahmins as the priestly class, the Kshatriyas as the warrior class and the Vaishyas as the traders and cultivators. The Brahmins as the custodians of Vedic knowledge were held in the highest esteem. Next come the Kshatriyas from whom came all the kings and generals but the division was not so rigid. Non-Brahmin Aryans including women also composed hymns, offered sacrifices and took active part in philosophical discussions. Although not belonging to the Brahmin class some of them e.g., king Janaka, commanded deep respect from all others including the Brahmins.

Nevertheless the change in society towards a rigid caste system was noticeable. In the Rigvedic times there were tribal lords who often fought with one another but during the later Vedic period these tribal lords from being *kings of men* have become *kings over land* and small kingdoms and principalities have sprung up. Wars are now not tribal feuds. Regular warfare between different kings with disciplined armies following definite rules has become more frequent. The Aryans were patriarchal and hence the eldest male member was the head of the family and through him in the male line properties and leadership of the family passed. Families merged into clans, clans into tribes, the bond of union being kinship real or fancied. The head of the tribe was the king and as in other patriarchal societies it was usually hereditary. The king was, however, not absolute. He was controlled by the council of elders called the *Sabha* and the *Samiti*. The king was the commander-in-chief and administered justice but he was controlled by the Brahmins who were the custodians of the customary laws and they alone could interpret and apply them. The king was assisted by the *Purohita*, the forerunner of the Brahmin statesman, the *Senani* or military general and the *Gramani* or the village headman. The *grama* or the village was the political unit and a number of villages constituted a *jana* and a number of janas into *janapada* or kingdom. The army consisted of the foot soldier, the cavalry and the charioteers. Horses were used and obviously they were greatly helpful in subduing the local inhabitants to whom possibly the horse was unknown. Bows, arrows, swords, spears and battle axes were the main weapons and we are not sure whether they were made of iron. Fortified villages there were but towns and castles were unknown. Navigation in large rivers like the Indus was known but it is doubtful whether navigation in the

high seas was ever practised. Occupation of the people was mainly pastoral and agricultural. Cattle was the principal wealth, wheat and barley were raised but no rice. Irrigation was known. In X 93-13 of the Rigveda we are told how water was raised from wells for irrigation. The contrivance is the same as is still in vogue in northern India; a number of pots are tied to a string and as the pots go up and down by the movement of a wheel, they are filled in the well and pulled up and emptied and sent down again. The contrivance is called *ghatachakra* or *the circle of pots* and bears the same name to the present day. In X 99,4 we have another allusion to irrigation of fields by means of canals which were replenished with water by means of a *drone*. Many industrial arts viz., weaving, tanning and metal works were known. Trade was mainly by barter but the use of coins was not unknown. The word *nishka* is often used in the Rigveda in a dubious sense. In some passages it means money. In others it means a golden ornament for the neck—the two interpretations are not necessarily contradictory, for in India, pieces of gold used as money have habitually been used as ornaments for the neck since time immemorial. Animal flesh was used as an article of food and cows were sacrificed and some animals, the deer in particular, were hunted and used as food. Besides frequent allusions to the sacrifice and cooking of cows, buffaloes and bulls, there is a reference (in X 89,14) to slaughter houses where cows were killed. Two kinds of intoxicating liquor were used and were called the *soma* and *sura*. The juice out of the plant called Soma was fermented and was particularly acceptable to the gods and the Rigveda devotes an entire chapter to the ceremonies connected with soma. Favourite amusements were dancing, music, hunting, chariot-racing and the game of dice.

Women were not as free as they were in matriarchal non-Aryan societies but compared with the women in ancient Greece and Rome, the Aryan women in Vedic India were more free and held a more dignified and respectable position in society. The purdah was completely unknown. Women received education, composed Vedic hymns, took prominent part side by side with men, in sacrifices and worship and participated in highly philosophical discussions. Except for kings and some rich men who could afford to indulge the luxury of polygamy monogamy was the general rule.

By the close of the Vedic period we notice the beginning of that institution which exercised so great an influence in all subsequent ages on Indian society. That institution is the Varna-Ashrama Dharma. The word *varna* literally means colour and as the colour of the skin was the basis of division in the earliest Rigvedic society it came to mean the caste system. We saw already how the distinction between the white-skinned Aryans and the dark-skinned non-Aryans or Dasas was first made and how on the simple principle of division of labour the twice born Aryans were further subdivided into three classes. Gradually these four classes became crystallised into rigid castes. The Brahmins as the custodians of Vedic knowledge had to lead a purer life, had to undergo sacrifices for learning the priestly duties, and a very high standard of discipline was prescribed for them. Other castes could not follow that high standard and hence a different standard suitable for their duties in society was prescribed. In this way for each caste a different *dharma* or set of rules for their conduct was prescribed and each was strictly directed to follow scrupulously its own rules of conduct. At first these rules were flexible but later they became very

rigid. As the Aryans came in closer contact with the non-Aryan elements in the country the necessity for maintaining their dharma was stronger and gradually intercourse amongst the castes by marriage and dining was discouraged. Brahmins married only in Brahmin families and avoided the other castes while dining or performing sacrifices. In course of time each class in society particularly the Brahmins became an exclusive caste. A person born in a Brahmin family had to observe all the rules of dharma prescribed for his caste and he had to follow the profession of his caste. If he did not, he would be considered an outcaste. As a simple corollary it follows that a person born in a non-Brahmin family would not become a Brahmin even if he performed all the duties of a Brahmin.

Besides the dharma of the caste, an individual of the upper castes had to perform his *Ashrama* discipline. It means that the whole life of an individual was disciplined from birth to death in a particular way. After the age of five to seven, the boy was to be sent to the house of his Brahmin preceptor for education and training. The Brahmin was a Rishi experienced in Vedic knowledge and devoted to learning and sacrifice. The boy was to be initiated there. He was to serve his preceptor with devotion, live in company with other disciples, learn the scriptures and cultivate the virtues of purity, honesty, truthfulness, devotion to duty, forbearance, sacrifice etc. When he was in this way thoroughly trained in both theory and practice and when his life was fully disciplined, he would be asked to go home, marry and settle as a householder. He would then perform his household duties and beget children and after fifty he would retire into some hermitage and devote himself to spiritual contemplation and meditation. After

that stage he would become a complete recluse unconcerned with worldly affairs till his death.

This ideal of *Varnashrama* dharma was not fully developed during the Vedic period. It is doubtful whether it ever was well-developed. It possibly remained an ideal for many, and only a few in different ages and in different degrees acted upto it. Nevertheless, for the future generations it exercised great influence in society and was imperfectly and partially realised but it continued to dominate the whole life of an Indian in all ages as an ideal.

LINGUISTIC DIVISIONS OF INDIA

CHAPTER V

SANSKRIT AND THE LANGUAGES OF INDIA

Was Sanskrit a spoken language? Vedic Sanskrit and classical Sanskrit. Relation between Sanskrit and the other Prakrit languages. The modern vernacular languages of India and their relation with Sanskrit. The position of Sanskrit once challenged but later it regains its position. Sutra literature. The liguistic unity in ancient India.

Many of the hymns and incantations of the Rig-Veda are in a language which is popularly known as Vedic Sanskrit but which strictly is not Sanskrit and differs considerably from the Sanskrit of Kalidasa's time. Vedic Sanskrit differs from classical Sanskrit just as Chaucer's English differs from Shakespeare's English. Obviously, the language of the Vedas is derived from some spoken dialect of the then Aryans and is closely akin to the language of the old Persians of the Avesta. As it happens in all countries the spoken dialect of some place, because of the commercial and political importance of that place becomes fashionable to other people who try to speak in that dialect so that that dialect becomes the standard. So long as the influence of that place continues, its language sets the standard to which other dialects try to conform and unless the civilization of the place changes, literature begins to grow in the language of that place. This is how modern English has grown out of some East Midland variety of a dialect of Mercia in England. In ancient India people used different dialects called Prakrit which means *natural, uncultivated or ordinary,* out of which has grown Sanskrit which means *refined and*

cultured. As the country is large there had been a number of Prakrit languages in different parts of India. Some of them in course of time were developed, received grammatical treatment and had some literature of their own. For the masses of the people the Prakrit language was the medium of expression but the language of the cultured continued to be Sanskrit. Literature developed in this language both in prose and verse; the religious texts were in this language; it received excellent grammatical treatment and the learned people everywhere so long as the civilization for which Sanskrit stood did not decline, expressed through Sanskrit. Both Prakrit and Sanskrit flourished side by side, but while the former was the spoken language of the masses, Sanskrit became the literary language *par excellance* superseding others. Serious students had to master this language and carry on discourses with others in this language and expressed their thoughts and ideas in this language. Sanskrit practically became the *lingua franca* in India just as Latin was in Mediaeval Europe. It was understood by the learned and cultured people in all parts of India as the distinction between the literary Sanskrit and the spoken dialect of Prakrit was rather slight. But in course of time the spoken dialects in various parts of India which after all is a very wide subcontinent, differed with one another giving rise to provincial vernacular languages while Sanskrit, the literary language was rigidly taught within the grammatical framework and hence did not change much. By the time of Panini, the grammarian who must have flourished not later than the 4th century B. C., the rules of grammar were so perfected that though the flexibility of the Sanskrit language was considerably reduced, it continued practically unchanged. The Sanskrit at the end of the Vedic period and the Sanskrit of the classical period certainly differ in style and

elegance, yet the language substantially remains the same. It is the medium of Indian culture and civilization in the past and it is even today, the strongest bond of unity in the whole of India.

The position of Sanskrit was, however, not unchallenged. Sanskrit represented the Brahmanical religion, whereas Buddhism and Jainism were reactions against Brahmanism These religious leaders preached their religion not through Sanskrit but in the spoken dialects of the people which the masses of the people understood better. In course of time a religious literature and afterwards a secular literature also developed in these languages. These languages, Pali of Buddhism and Ardha Magadhi of Jainism thus received grammatical treatment and were raised in course of time to the status of literary languages. The dominance of Sanskrit, however, was not lost as in some areas e.g., Nepal, Buddhist religious texts are in Sanskrit while in Ceylon, Burma etc., they are in Pali. Nor was the influence of Sanskrit on other vernacular languages in India less strong. As Sanskrit culture spread, it came in contact with the spoken dialects, mostly Dravidian and Mongolian in the South and the East. The local people found Sanskrit a highly developed language and a better medium of expression. Sanskrit was the medium of a superior culture and naturally people started picking up Sanskrit. Obviously the ordinary people could not master the language in its purity and the result of this mixture was a jargon which in course of time became a local vernacular language with a large element of Sanskrit. Thus all the vernacular languages of India except Tamil are highly Sanskritic. In the Dravidian languages also, the Sanskrit element is not quite negligible.

There are several varieties of Prakrit, for example, Magadhi in Bihar, Shauraseni in Mathura, Rajasthani in

Rajputana and Gujarat, and Marathi in Maharashtra. From these again, most of the modern Indian vernacular languages in northern India have developed and they are grouped under the Aryan Sanskritic languages. Thus Sanskrit is not the mother of these languages but all these languages together with Sanskrit have grown out of the same common origin. So the connexion between Sanskrit and these languages is very close. Out of every ten words in Bengali, Hindi, Gujarati or Marathi, nine words are of Sanskritic origin and therefore common, the difference being only in the declensions. Nor did Sanskrit ever become a dead language. In ancient times every cultured Indian knew Sanskrit and in learned circles Sanskrit was the medium of expression. Not only that, ordinary people could not speak Sanskrit fluently but they could understand Sanskrit tolerably well so that in ancient India a man knowing Sanskrit could travel in any part of India without much difficulty.

We have spoken of the *sutra* literature which according to Winternitz is unique in the world. At first the system was used in learning the Vedas but later it was introduced in other lines also. There are three divisions of sutra: (1) Srauta sutra which means the instructions for correctly observing the Vedic rites, (2) Grihya sutra which means rules of conduct to be followed by the householders, and (3) the Dharma sutra which means the laws which regulated inheritance, succession etc., of the Aryans. Besides these, the Vedic studies gave rise to six sciences which must be mastered in order that the Vedic rites could be performed correctly. Though not part of the Vedic literature they are called *vedangas* which means limbs of the Vedas. They are (1) Siksha or Phonetics or Pronunciation, (2) Chhandah or Metre, (3) Vyakarna or Grammar,

(4) Nirukta or Etymology, (5) Kalpa or religious observances, (6) Jyotish or astronomy. These vedangas are for our purposes more important because they enable us to form an estimate of the standard of sciences that developed during this period. Strange it may seem to the foreigner but it is nevertheless true that every Aryan boy in all parts of India where the Vedic culture spread had to learn the sutras and complete his Vedic knowledge and had to undergo the discipline of *varnashrama* and was conversant with the common language, Sanskrit, so that the mode of life and the medium of expression in all parts of India were the same. In that period political unity in India was not achieved just as there was no bond of unity in Europe except Christianity in the middle ages but unity in social and religious life, in law and in language and literature was fairly strong. As time went on and Aryanism penetrated into distant areas more thoroughly, the religious prayers and rites became less sectarian but wider and broader in outlook. For example, by the 6th century A. D. a Hindu while saying his prayers and offering oblations with water, had to invoke thus: "Let the waters of the Ganges, the Jumna, the Godavari, the Saraswati, the Narbada, the Indus and the Cauvery be present in this water". Similarly, early in the morning when a Hindu gets up from bed he begins his prayer by referring to the holy places of India viz., Ayodhya, Mathura, Maya, Kasi, Kanchi, Avantika, Puri, Dvaravati.

This shows that the whole of India was fairly covered and that the prayers mentioning the seven holy rivers and the seven holy places could not but broaden the mind of the Indian. Insignificant and pointless these may seem to a superficial observer but in the actual life these prayers and observances brought home into the mind of every Indian the essential unity of India.

CHAPTER VI

THE GREAT EPICS OF INDIA

The Heroic age—the post Vedic and the pre-Buddhist period (1000 B.C. to 600 B.C.). The Ramayana and the Mahabharata—their date, composition and authorship. The main story. Political and social condition of the time. Expansion of Aryan culture. The Gita and the teachings of Krishna—the cult of devotion.

The period covering a few centuries after the latter part of the Vedic Age and before the rise of Buddhism and Jainism is the period of the great Epics—the Ramayana and the Mahabharata which represent the Heroic Age of India The exact date of these two epics cannot be ascertained. All we can say is that they represent Indian life during the period when Aryanism spread from the Punjab and penetrated into the East upto Bihar and into the South below the Narbada but before Buddhism and Jainism rose. Of the Ramayana, it is held, that barring interpolation at the beginning and at the end, it is admittedly a less diversified composition than the Mahabharata. The Ramayana is the older, the language is more archaic, with greater unity in the story and representing a purer society. The hero Rama was a prince who had his encounters, and originally these episodes bearing on the exploits of Rama were possibly sung by court poets. Later, native bards used to narrate and sing them before country people and on occasions changed and modified the original story in order to receive more appreciation from the audience. Thus newer episodes, newer ideas and religious propaganda were mixed up. The epics as we find them now are, therefore,

the product of so many bards and poets who added continually to the main story in course of centuries. The original authorship of the Ramayana is attributed to Valmiki, the first Indian poet and following him other poets also composed their own epics. At a very later period local poets in some provinces translated the Ramayana with, of course, large modifications in provincial languages. The most important of them are one by Krittivasa in Bengali and another by Tulsidas in Hindi. Similarly, the Mahabharata had also undergone translations in the various provinces. The episodes of these two epics are widely known. Practically every Indian knows them and all later poets in their works extensively borrowed from them just as the poets in Europe borrowed from the Illiad and the Odyssey. Every place in India is associated with the memory of something done by the heroes of these epics and that moves the heart of all Indians old or young, male or female, rich or poor, Brahmin or non-Brahmin right from Mahatma Gandhi down to the lowest Chandala. Masses of the people do not understand the philosophical truth contained in the Upanishads nor can they observe the Vedic rites and performances. Religious and moral ideas are propagated to the masses through them and the actual influence of these epics on the life of the people is immense. Rama is the ideal son, ideal fighter and ideal king venerated and worshipped throughout India. His boyhood, his marriage, banishment, loss of wife who is stolen by the demon king Ravana, his encounter and fight with him, his ultimate victory and finally his banishing Sita, the devoted and innocent wife simply to satisfy the subjects of his kingdom, are the themes with which every Indian is familiar. These episodes and encounters have not failed to bring tears to every one for the last

three thousand years and there is no exaggeration in saying that Rama is yet a living spiritual force as strong and real as ever. From the Himalayas to Cape Comorin every place in India contains some temple or image of Rama or his devoted follower Hanuman and in all places on festive occasion there would be open air folk theatres on some episodes of the Ramayana. People in most places greet one another by saying "*Jai Ramjiki*". It may appear strange but nevertheless it is true that the Ramayana is a strong bond of unity amongst the Indians. The Ramayana is as sacred as religious text and as attractive as romance. Regarding these two great Epics Pandit Nehru writes in his *Discovery of India* "I don't know of any work anywhere which has exerted such a continuous and pervasive influence on the mass mind as these two. Dating back to a remote antiquity, they are still a living force in the life of the Indian people, not in the original Sanskrit except for a few intellectuals but in translations and adaptations and in those innumerable ways in which tradition and legend spread and became a part of the texture of a people's life."

The story of the Ramayana may be summarised thus: King Dasharatha of Ayodhya (a town on the river Sarayu in U.P.) had three wives, Kaushalya, Kaikeyi and Sumitra. After considerable prayer and sacrifice he had four sons, Rama by Kaushalya, Bharata by Kaikeyi and the twin brothers Lakshmana and Shatrughna by Sumitra. Lakshmana was devoted to Rama and Shatrughna to Bharata and the brothers always moved in pairs. From their very boyhood the princes, Rama in particular, made their mark by their valour and heroism. On one occasion he went to the hermitage of one Rishi and killed the demons who disturbed the saints and on his way back displayed extraordinary strength whereby he married Sita, the adopted

daughter of Janaka, king of Mithila, modern North Bihar. The other princes were also married. When the ceremony of installing Rama as the heir-apparent was to take place, Kaikeyi, the step-mother, in the absence of Bharata and on the suggestion of a wicked maid servant, demanded of the old king to fulfil his promise which he had previously made to her, whereby Rama was to be banished for 14 years and Bharata in his place to be installed as the heir-apparent. The old king was mortally grieved, yet kept his promise whereby Rama followed by Sita and his devoted brother Lakshmana left the kingdom for the forest. But the old king could not stand the shock and died. Meanwhile, Bharata came and was surprised to know what had happened, admonished his mother and begged Rama to forgive him and come back. Rama, however, insisted that his father's words must be kept wherefore Bharata keeping the wooden shoes of Rama on the throne, began to rule the kingdom strictly as Rama's subordinate. In the meantime, Rama had miraculous encounters in the forest. At Dandakaranya, near modern Nasik, Ravana, the demon king of Lanka by a stratagem carried away Sita to his place. Rama made an alliance with the monkey forces and with them proceeded towards Ceylon, entered with his troops into that island after constructing a bridge. Bibhishana, a younger brother of Ravana advised his elder brother to sue for peace and for this the proud and insolvent Ravana kicked him out; so Bibhishana joined Rama. A fierce battle took place as a result of which all his sons, grandsons, generals and soldiers were killed; Sita was rescued and Bibhishana succeeded to the throne of Lanka. Rama came back to Ayodhya and became the king. In the meantime people began to question the chastity of Sita who was for one year in Ceylon in Ravana's custody. Rama knew her to be innocent and yet in order that no bad

example was set by him had her banished when she was pregnant. In the hermitage of Valmiki she gave birth to twin sons, Lava and Kusha who received thorough training in warfare and were as valiant as their father.

Rama, in the meantime was performing the Ashvamedha sacrifice which means that a horse was let loose, and after roaming in all directions and travelling in all other kingdoms it would be brought back and sacrificed. The meaning is that all rulers through whose territories the horse would pass, would either submit to the overlordship of Rama or give battle. Soldiers would always follow the horse and occasionally battles would be fought. In this case the twin sons of Sita without her knowledge, did not allow the horse to go, gave battle practically alone to Rama and his troops without knowing him to be their father. In the battle all including Rama were killed. When Sita knew what her sons did she was much grieved but the saint Valmiki restored Rama to life and ultimately it was arranged that Sita would be taken back after her ordeal in fire. Her innocence was vindicated and the fire did her no injury but she felt insulted and prayed to mother Earth to receive her when, to the astonishment of all, she was removed into the bosom of the Earth. After that the four brothers sacrificed their lives in the river. Rama is regarded to be an Incarnation of God who comes in this world to establish righteousness. So he came and as soon as the purpose was served he went back to Heaven.

The battle between Rama and his sons does not occur in Valmiki. It is said that the first Book which says that Rama was the Incarnation of God and the last Book where Sita was banished by Rama, were added at a later period. Sita's banishment is an afterthought. In Indian literature we do not have a tragic end. Except these two, the central

story in the Ramayana seems to represent post-Vedic but pre-Buddhist Indian life fairly correctly. It is clear from the picture of India as we get in the Ramayana that Aryanism had just spread in the Doab area of U. P. and some portion of Bihar. We find only the rivers, hills and towns of these areas and seldom do we get any reference to areas east of Bihar or areas south of the Vindhya mountains. The whole country seems to be thinly populated without many large towns and there are more forests and less human habitations. The whole of the Deccan seems to have been out of the Aryan influence. Nor is there any reference to the towns and kingdoms in the Punjab, the Frontier Province, Sind and Baluchistan. The North Western India is the original home of the Vedic Aryans but at least politically these areas seem to have made no progress while Aryanism in its new sorroundings in U. P. and Bihar shows new vigour. Not only large kingdoms and towns sprang up, the indication of one suzerainty over a number of principalities is unmistakable. A powerful king performs Ashvamedha or Rajasuya sacrifice which means that other small rulers are forced to accept his overlordship. Of course this overlordship is nominal and temporary. No permanent empire is as yet within sight. In fact an empire in India seldom meant any political and administrative unification. Battles were fought always by the kings and the people were left undisturbed. Local laws and administrative systems were never changed. This is true in ancient India as well as in modern India. Religious and social laws in all areas were the same—they were the Vedas, the Dharmashastras, the Epics and the Puranas; they gave unity to India. But political and administrative unity, considering the vast country and the means of communication, was seldom completely realised.

From the epics we also see the changes in the social life of the people. Though the caste system was established the flexibility was not completely gone. Rama was a Kshatriya, so was Krishna of the Mahabharata and both are worshipped even by the Brahmins. King Janaka, also a Kshatriya ruler was famous for his knowledge and saintliness and commanded respect throughout. Religious sacrifices have become more elaborate. Formerly the Aryan householder offered sacrifices himself to fire in the open in his family surroundings. Now professional priests are engaged and sacrifices on a large scale take place. Temples and images are not far off.

Beef possibly is not much used but meat is not prohibited. Even saints in the hermitages while making offerings to the departed ancestors, (called *shradh*) include the flesh of deer. Hermitages outside the towns are the centres of education and learning. Only some Brahmin priests who were also ministers used to stay in the capital but the Brahmin teachers called *guru* or preceptor, used to stay in their hermitages where they taught in theory and practice, religion, law, literature and the sciences. Boys are sent there for training, for which no fee is charged. The preceptor leads a life of sacrifice, maintains a large number of students, the cost being borne by the king or by public charity. The student life was one of simplicity and abstinence, and hence expenses of living were not much. A teacher would consider it beneath his dignity, to accept any fee. Students would live in mud cottages, classes are held in the open air under some tree with seats made of *kusha* grass. Corn is grown in the field, cattle reared, firewood, fruits etc., procured from the jungle—all done by the students themselves. These serve as universities. As most things are taught orally they give rise to different

schools and systems of thought. We come across various teachers, law givers and authors such as Vasistha, Baudhayana, Apastamba, Brihaspati etc. They represent in fact not individuals but different schools.

Some elements in the Mahabharata might be very old but the main things indicate that the Mahabharata is posterior to the Ramayana. The central theme of this epic is simple. It deals with the rivalry between two divisions of the Bharata tribe—the Kurus and the Pandavas. Ultimately a battle took place which lasted for 18 days and the Kurus were all killed and the eldest Pandava brother, Yudhisthira became the king. But episodes within episodes have been woven and linked in such a way that the epic has become the longest narrative poem in any literature of the world, containing 100,000 couplets, some 30 times larger than Milton's *Paradise Lost*. The picture of the country depicted in the Mahabharata is different from the picture we have in the Ramayana. The battle took place in the field of Kurukshetra; the Pandavas have set up their capital at Indraprastha, modern Indarpath at old Delhi, the traditional capital of India where so many decisive battles were fought and where kings and emperors had ruled and perished. But it appears that Aryanism had extended upto Prag-Jyotishpura, (modern Gauhati) in Assam, Dwarka in Kathiawar, Gandhar in the North West, and Madra in the Punjab. Not only so many provinces have come into the Aryan influence, it shows that the various customs and laws of these races have also been assimilated into Aryanism. The religion and worship, the laws, the social system etc., of the Aryans have penetrated far into newer regions and have influenced the local people considerably and they were now brought under the Aryan fold. At the same time the religious practices

and social customs of these non-Aryans had not been altogether wiped out. Some persisted and survived. The result, therefore, was that Aryanism had itself become modified.

There had been a larger number of kingdoms and principalities from the North West to Madras and from Dwarka to Assam and these did not flourish in isolation as was the situation during the time of the Ramayana. There was greater contact, and rivalry amongst them, better communication throughout and larger armies and superior organisation with a strong tendency towards some form of overlordship.

How the Aryan expansion took place in the south and in the east and throughout India may be briefly described. By the time of the Brahmanas the Aryan expansion moved by the river valley of the Ganges and the Jumna and covered the Doab region of U. P. South Bihar, Malawa, Rajputana and Gujarat formed a semi-circular belt which was half known to the Aryan but not yet Aryanised. By the time of the Upanishads they came within the Aryan fold and stray references are available in the Brahmana literature hinting how the movement took place. There is a passage in the last book of the Aitareya Brahmana which, along with the account of the principal Hindu kingdoms of the time, makes some mention of the aboriginal tribes in the South and the West.

"The Vasavas inaugurated Indra in the eastern direction with rik and yajus verses—hence all kings of eastern nations are called Samraj.

"Then the Rudras inaugurated Indra in the south region. Hence all kings of living creatures (*satvanam* living creatures hardly human beings) in the southern region are called Bhoja.

"Then the divine *adityas* inaugurated him in the western region; hence all kings of *nishyas* and *apachyas* in the western country (*pratichyam*) are inaugurated to independent rule and called *Savarat*" (from which possibly Saurashtra and Surat).

Possibly hardy colonists penetrated into this non-Aryan belt obtaining a mastery over the aboriginal races and establishing some isolated settlement on the bank of some rivers and presenting to them some of the results of their civilised administration. Some saintly anchorites retired into these jungles and fringed the tops of hills or fertile valleys with their holy hermitages which were seats of learning and sanctity. Adventurous royal huntsmen or unhappy princes exiled by their powerful rivals took up their abodes in these areas and carved out new kingdoms. But all these areas were not jungles and all tribes were not dark-skinned uncivilized aboriginals. Some tribes who were white-skinned but did not worship Aryan gods and did not practise Aryan sacrifices or customs were also known. They were called *Vratyas*. They drive in open chariots, carry bows and lances, wear turbans and shoes, their leaders are distinguished by brown robes and silver neck ornaments; they pursue neither agriculture nor commerce; their laws are a state of confusion; they speak the same language as those who received Brahmanical consecration. The *Tandya Brahmana* of the Samaveda calls them *Aryan not living according to Brahmanical rites* and provision is made by which they could get admission into the Aryan society.

It is not true that the Aryan settlers always physically migrated to newer regions. The civilization of the Aryans was superior and their language was a better medium of expression. Those tribes who came in contact with them

gradually learnt this language and through the language became familiar with the Aryan thoughts and ideas. Non-Aryan pupils must have joined some of the centres of learning in northern India and when they went back became the ambassadors of Aryan culture.

Within a few centuries the whole of the east and the south became Aryanised. Baudhayana (6th century B.C.) is a *sutrakara* possibly coming from the south. According to him,

"Aryavarta lies to the east of the region where the river Sarasvati disappears, to the west of the black forest (kalakavana), to the north of the paripatra (Vindhya mountain), and to the south of the Himalaya; the rule of conduct which prevails there is authoritative." Again, "the inhabitants of Avanti, of Anga (east Bihar), of Magadha (south Bihar), of Saurashtra, of the Deccan, Uparits, of Sindh and the Sauviras (south Punjab) are of mixed origin. He who has visited the Arathas (in the Punjab), Karaskaras (in south India), Pundras (north Bengal), Sauviras, Vanga, Kalinga, shall offer a *Punnastom*.....sacrifice."

This clearly shows that the whole of the Punjab lost its sanctity and significance; the Ganges valley was held in the highest esteem; the middle had not the same respect; while beyond this region other newly Aryanised kingdoms were looked upon with some disdain.

Baudhayana further mentions the peculiar laws and customs of South India and says, "There is a dispute regarding five practices in the south and in the north. Those peculiar to the south are that they eat in the company of one's wife, eat stale food, marry the daughter of a maternal uncle." The last practice still prevails with some groups of Brahmins of the Deccan. Baudhayana further provides that he who follows the practice in any country

other than where they prevail, commits sin and that for each of these customs the rule of the country should be the authority. This proves that Aryanism was not so rigid and that new customs were liberally absorbed.

Another sutrakara is *Apastamba* who lived a century later. He was himself from the south and taught in the Andhra country between the Krishna and the Godavari. It was the Andhra text of the Taitiriya Aranyaka that Apastamba recognised and followed, and his teachings are to this day held in great respect by the Brahmins of Nasik, Poona, Satara, Kolhapur, Sholapur etc. Thus the spread of the Aryan culture was complete in the whole of India before the 6th century B. C. Politically, however, all these areas except the extreme south were united under one empire by the Mauryas in the 3rd century B. C.

Krishna, the king of Dwarka is the principal person in the Mahabharata. Later he is considered to be an Incarnation of God. He is the founder of a new cult Bhagavatism and in different provinces it gave rise to several varieties of Vaishnavism. The Vedic gods and goddesses are now seldom mentioned. Krishna, Shiva, the mother goddess Ambika or Kalika now become more popular and influential. Krishna is believed to have preached a religion to Arjuna, the hero of the Kuru Pandava war, during an interval in the battlefield of Kurukshetra. It is, of course, not a new religion but is based on the religion of the Vedas interpreted with a new philosophy. This preaching is contained in the *Gita* which has since become the Bible of the Hindus. This marks a landmark in the evolution of Hinduism in the sense that all preachers and law-givers based their conclusions on the Vedas and if any body had to give anything new, he had to make the Vedas as the basis but by way of interpreting it would

preach his new doctrine. The *Gita* does not go against the Vedas; rather the ideas and even the language are practically like those of the Upanishads. Since then all new preachers have started to make the *Gita* their basis and then by way of interpreting it gave new ideas and doctrines. Arjuna was unwilling to fight as he saw before him all his near and dear relations for whom naturally he felt some weakness. Krishna cheered him up and encouraged him to fight, as it was his duty and to do one's duty heedless of one's personal likes and dislikes and without thinking of the loss or gain, impersonally and dispassionately, was the highest virtue. It is difficult to understand how this doctrine can be harmonised with the doctrine of *Ahimsa* or non-violence. Yet later thinkers belonging to different schools accepted the authority of the *Gita* but gave altogether new interpretations according to their own ideas. Even now Mahatma Gandhi, the Apostle of non-violence accepts the authority of the *Gita* but by a different interpretation establishes that the *Gita* actually preached non-violence. All philosophers practically made the *Gita* their basis but established different doctrines sometimes diametrically opposite by way of interpretation. The *Gita* is also important for another reason. Before the Upanishads, the Aryan religion consisted of the elemental gods and goddesses conceived of as different aspects of nature, and prayers and offerings to them. In the Upanishads we notice a remarkable change. There the Rishis are not satisfied with the Vedic rites but have come to realise that behind all the varieties of this universe and the aspects of nature there must be some One Supreme Being pervading all. "He is One but seers call Him in different names." A human being as soon as dead is not completely gone. There is a soul and his soul comes into this world in human form and enjoys pleasure

or sorrow according as it had done pious and impious deeds in the previous birth. This is the doctrine of Karma and the Transmigration of the soul. This *Gita* of Krishna clearly preaches these ideas of the Upanishads but it goes a few steps further. God is the Supreme Being and He alone can deliver an individual from the woes and miseries of life, and give him perfect bliss if an individual loves Him with intense devotion and complete sincerity. But one cannot love an abstract idea. One has, therefore, to conceive of God as his personal god with some personal relation established. In this respect Krishna gives wide option to his devotees. One may consider God to be his father, brother, friend or anything he likes best. Christians know of one relation only. God is conceived of as our Father. But one may not have much regard or affection for one's father in which case according to Krishna's religion, one may conceive Him to be one's husband or friend or son or any relation that inspires genuine affection. This is known as the cult of Bhakti. This at a later period gave rise to the religion of personal god, idol and temples.

Krishna of the *Gita* is to be distinguished from the Krishna of Brindaban, later the king of Mathura, who is worshipped and known throughout for his amorous relations with Radha and the cowherd maidens. However, both are sometimes identified as one and the lives of the modern Vaishnava devotees are more influenced by the latter Krishna, mainly because of his romantic but human elements than the Krishna of Dwarka, the Bismark of the Bharata war.

During this period agriculture, commerce and industry thrived and the wealth of the people became sufficiently large to maintain the pomp and grandeur of the palaces

as well as large armies. But the fighting was mostly confined to kings and generals, and the decision was by personal valour. Ordinary soldiers fought on foot while the kings and generals on chariots and horses. A powerful king by establishing overlordship over others became a *Samrat* or *Rajachakravarti.* Such a king himself administered justice and personally led the army in the battlefield but all questions of policy were decided by the Council of Ministers, and on social and religious matters the voice of the Brahmin Ministers was conclusive.

The position of women had slightly changed. Kings and princes mainly for political reasons married several wives but for ordinary people polygamy was allowed under certain conditions particularly if the woman was barren. It does not seem that polygamy was widely practised. Nor was polyandry completely unknown. Some races near the Himalayan ranges, may be of Mongolian origin, came under the Aryan influence and with them traces of polyandry remained. Even now amongst the people in Tibet polyandry is prevalent. In the Mahabharata there is the single and solitary instance of Draupadi, who married the five Pandava brothers. It shows that with the Mongolian races the practice was fast dying out. Women were mainly occupied in their domestic work. In society they enjoyed a free, equal and honourable life. Marriage was negotiated by the parents but sometimes the *swayamvara* was practised. It means that suitable candidates would be invited and they would play and practise manly exercises and ultimately the princess would make her own choice in selecting her groom. The practice of *suttee* which means that after the husband's death the widow would get herself burnt on the funeral pyre along with her dead husband was not prevalent. Widows were sometimes

remarried. Except in case of the kings and rulers marriage was continued within the caste but not within the *gotra*. The *gotra* was important for the Brahmins. At a later stage it became important for non-Brahmins also. It originally meant the common stock of cattle which formed the main source of wealth. In ancient societies an individual was unknown. People lived in small collective groups and each was known by the group to which he belonged. Even in modern times our names indicate not the individual person but the group. All members of the group were supposed to have descended from some legendary Rishi and the name of the legendary Rishi was the *gotra* of all individuals who, therefore, were supposed to be cousins. One explanation why marriage in the same *gotra* was prohibited is that in those times an elder daughter used to milk the cow and often some male member used to escort her. This might have led to love between them and dissensions and complications might have grown within the family. So all male and female members having the same *gotra*, however distant the relation might be, were considered to be brothers and sisters, and marriage between them was prohibited. Only recently legislation has made such a marriage valid, but most Indians actually observe this prohibition. The necessity for male children was strongly felt. The country was vast; natural resources were plentiful. They had to fight against odds and wring out from nature means of subsistence. In early societies number was a great source of strength. Those who had no natural son, could adopt another man's son as his own natural born son. Another practice which was occasionally used was the system of *niyoga* which means that if a man himself was incapable of producing an issue, he could authorise some body else, usually his

younger brother to raise an issue on his wife. Multiplication was a social necessity and society evolved various ways to serve the purpose. With the change in social necessity our sense of decency and morality also changes. This is true not only in India but also in other countries. To an Englishman marriage with one's deceased wife's sister is horrible. But when Englishmen first settled in Australia there was naturally a shortage of women and the Australians could not afford to observe this prohibition. Marriage with one's wife's sister shocked most Englishmen but this is possibly not so shocking now.

Intercaste marriage was fairly prevalent. Grooms of a higher caste could marry a bride of the lower caste, known as *anuloma* marriage, and grooms of a lower caste could marry a bride of the higher caste known as *pratiloma* marriage, but the latter was discouraged. During this period Aryanism had come in contact with various native races each with some peculiar customs of its own. More or less these were retained for a pretty long time. In India there are people amongst whom inheritance and succession follows the patriarchal system, in some cases the matriarchal system and in some cases the line by the sister's son goes on. All these people with their different systems quite in tact came under the Aryan influence and they were all culturally Aryans. The fact that the Aryans of this period came in contact with people widely differing can be seen from the various marriage rules that prevailed. Eight kinds of marriages were known and clearly all these were not Aryan. In the laws of Manu (possibly in the 1st century A. D.) eight kinds of marriages are mentioned. Some of them are peculiar. For example, the Gandharva system is one where the bride and the groom after courtship and love, marry one another without any

formality; another kind is the Rakshasa system where the groom's party forcibly carries away the bride after fighting and killing the parents and relations of the bride; the third is the Asura system where the bride is bought and a price has to be paid; the fourth is the Paishacha system where the woman is seduced and raped. All these, however, constitute valid marriage. It seems that these systems obtained amongst some prehistoric tribes, may be Mongolian and Dravidian, and after they had been incorporated into the Aryan fold, their systems of marriage continued for some time. We have such instances in the Mahabharata but by Manu's time many of these systems must have died out. Even today the Gandharva system is prevailing amongst the Khasis in Shillong where after courtship the bride and the groom live together for three consecutive nights as husband and wife, and this constitutes a valid marriage in that society. The Rakshasa system is not unknown amongst some tribes in Assam. But, of course, they are fast dying out. It is evident that Manu refers to all these from tradition and the law-giver practically discourages them as unbecoming the twice-born Aryans.

Inscription of Asoka on the Girnar rock in Kathiawar. The script is called Brahmi and the language is Prakrit.

Practically today only one kind of marriage practice has survived where the marriage of the bride is negotiated by the parents and she is given as a gift to a suitable groom after proper Vedic rites. But it is clear that during Mahabharata's time different tribes with their peculiar customs not known to the Aryans, had existed. They were gradually assimilated and were Aryanised though their customs lingered for some time. The ancient practice of *Vratyastoma* described fully in the Tandya Brahmana shows that whole tribes, not of Aryan origin, were absorbed into Brahmanism.

CHAPTER VII

THE REVOLT AGAINST BRAHMANISM

History from the 6th century B.C. The 16 Mahajanapadas. The rise of Magadha. The revolt against Brahmanism. Condition before their rise. Jainism. Sources of Buddhist scriptures become available—the pioneers, Hodgson. Life of Gautama—main tenets—what Buddha accepts and what he rejects. The spread of Buddhism. Comparison with Christianity. Effects on religion, society, arts and sciences.

From the 6th century B. C. the real history of India begins. From this period facts and events with dates are known though on many issues different sources give different versions and it is difficult for historians to reconcile them. We have no longer to depend on tradition and mythology alone; we have other sources as well. Besides the Sanskrit Puranas which include old historical traditions, there is the Jain and Buddhist literature in India, Nepal, Ceylon and China. During this period India's contact with the outside world is known in more details from external sources. From this time inscriptions also begin to appear. At this time in northern India there were some 16 kingdoms known as *Mahajanapadas*. They are: (1) Kasi with its capital at modern Benares, (2) Kosala roughly corresponding to modern Oudh. Its capital was Sravasti and the other important town was Ayodhya, (3) Anga was in Bihar and its capital was Champa, modern Bhagalpur, (4) Magadha roughly corresponded to Patna and Gaya districts of Bihar. Its earliest capital was Girivraja near Rajgir, later transferred to Rajagriha and then finally to

Pataliputra, modern Patna, (5) the Vajjis were a confederation of some tribal states of whom the Lichchhavis with their capital at Vaisali and the Videhans at Mithila were important. They were possibly of a Mongolian tribe with some form of republican government, (6) the Mallas had also republican government with their principal town at Kushinara, (7) Chedi was a state in modern Bundelkhand, (8) Vatsa lay along the banks of the Jumna with Kausambi as capital, (9) Kuru near Delhi was once very powerful but now insignificant. The capital was Indraprastha—Indarpat near Puran Quilla, Delhi, (10) Panchala corresponded to modern Rohilkhand. It also was very powerful once but now insignificant, (11) Matsya had its capital at Viratnagar modern Bairat near Jaipur State, (12) Surasena had its capital at Mathura, (13) Asmaka was somewhere near the Godavari, (14) Avanti was central Malwa with its capital at Ujjain, (15) Gandhara was the Frontier Province and West Punjab with its capital at Taxila. (16) Kamboja was somewhere in the North Western India.

It seems that by this time the Punjab which was the original centre of Aryan domination lost all influence and not until the Kushanas (2nd century A. D.) this area had any importance politically and culturally. The Punjab continued to be fertile and wealthy but except Gandhar and its capital Taxila no other state is known to have any importance. The whole area was divided into a large number of petty states in internecine war and they easily fell a victim to foreign conquest. It is also clear that all these states in northern India were fighting with one another, the strong devouring the weak. Sometimes Kosala, sometimes Magadha and sometimes Avanti became powerful till at last Magadha established her ascendency over others and the first Indian empire in historical India

came into being. It also appears that during this period not one race nor one culture existed in India. Different races and different cultures competed with one another till at last under one empire fusion in race and unity in the political sphere was brought about. Monarchy was the prevailing system but democracy and the republican form of government were not unknown. For some time these flourished but the monarchical government in the conditions prevailing then, had some undoubted advantages and the empire was built under the monarchical form. Democracy, as in ancient Greece and Rome, is suitable only for small states but when rivalry begins resulting ultimately in big kingdoms, democracy gives way and is replaced by imperialism and despotism. In ancient Greece and Rome this was unmistakable. In ancient India this was quite noticeable.

The rise of Magadha during this period was the most interesting event. Bimbisara, a son of a petty chieftain of Bihar was the real founder of Magadhan supremacy. Rajagriha was his capital. Partly by military conquest and partly by matrimonial alliances he brought some of the neighbouring states under subjugation. He had a strong personality and controlled the officers of the state sternly. Criminal law during his time was severe and cruel punishments involving imprisonment, scourging, branding, beheading, tearing of the tongue, breaking ribs etc., were inflicted on offenders and this system continued till Asoka, by which time complete peace and rule of law was established. Bimbisara was very ambitious. He received an embassy from Gandhara, sent a physician to the king of Avanti and made alliances with other states. His kingdom is said to have included 80,000 townships. It was during his time that Gautama Buddha preached his religion and possibly

Bimbisara himself became a devotee of Buddha. He was succeeded by his son Ajatasatru who was equally strong and ambitious. He also followed the same policy of marriage alliance and military conquest, and brought Kosala and Vaisali under his power. By his time the whole of Bihar and northern India upto Kosala was included in the kingdom of Magadha, the only rival now left being Avanti. His son Udayana carried on the same tradition and built a fort at Pataliputra at the confluence of the Ganges and the Son. This enabled Magadha to control the areas north of Bihar. This new situation also became politically and strategically more important. The successors of Udayana seem to have been weak rulers, and people seem to be discontented. One minister Shishunga by name usurped the throne, restored order, annihilated Avanti which was a powerful rival of Magadha. His successors transferred the capital to Pataliputra, modern Patna, which for the next few centuries continued to be the capital of the Magadha empire and the main centre of Indian politics and culture.

This dynasty was brought to a close by one Mahapadma Nanda who set up a new line of kings called the Nanda dynasty. Mahapadma and his sons and successors ruled for some time and the last king called Dhana in Buddhist literature was a contemporary of Alexander the Great. The Greeks called him Agrammes or Xandrames (Sanskrit Augrasainya). He was a powerful ruler and during his reign the power and prestige of the Magadha empire rose to a considerable height. He had a vast army and fabulous wealth. Possibly for his low birth and financial extortion he was not popular and he was overthrown by Chandragupta Maurya with the help of the crafty Brahmin statesman, Chanakya or Kautilya.

By the time Aryanism had reached Magadha, the dogged fanaticism with which the Vedic priests adhered to their rites, was much reduced and the philosophic aspect of Vedic religion, as we find them in the Upanishads was gaining ground. The Vedas by this time came to be clearly divided into two parts. The Samhitas and the Brahmanas, dealing with rites and observances, constituted the *Karma* division and the philosophical discussions of the Upanishads formed the *Jnana* or knowledge division. The *Karma* division of the Vedas not only lost its former significance, but also acquired a new character and magnitude. Not the simple offering of food and drink before the household fire in one's family but *Yajnas* by a large collection of people together, under the direction of a large group of professional Brahmins used to take place where several maunds of ghee and a few thousand animals would be sacrificed. This naturally led many thoughtful people to question if such deeds could bring one's salvation. The idea of Karma had also undergone some change in meaning. By Karma was originally meant the Vedic rites and observances which, if correctly performed by the professional priests, without in any way affecting the heart of the doer, would give one good fortune. Karma now came to mean all those deeds which a man personally did in the course of his life on this earth. If these deeds are good, pious, charitable, and righteous then and then only a man will be entitled to a better life on this earth or heavenly bliss hereafter. For the propagation of these ideas the various sects which flourished during this time in the regions near Magadha were responsible. From various sources we know that during this period there lived in this part of India many religious sects whose followers did not believe in Vedic rites, in fact they were never familiar with them; and did not, consequently, accept the superiority of the

priestly Brahmins; rather they had one class amongst them called the Shramanas who were the intellectuals like the Sophists in ancient Greece and there was a strong rivalry between them and the Brahmins. These sects generally were pessimists and believed in renunciation and sacrifice, and used to practise peculiar austerities including suicide by gradual starvation. These ascetics were devoted to spiritual contemplation, sought no wealth or pleasure and led a life of renunciation and sacrifice usually in seclusion but they were learned and thoughtful and hence they commanded respect and admiration from the masses. The asceticism of the Shramanas and the Brahmanism of the Aryans existed side by side for a long time and each must have influenced the other. In the Pitaputra Samvada in Shanti Parva of the Mahabharata there is a well-drawn contrast of the Ashrama ideal of the Brahmins advocated by the father with the renunciation ideal of the Shramanas espoused by the son. The same ideal of renunciation had also influenced some of the Upanishads. Some fusion of ideals must have taken place but the difference persisted. At last from amongst the ascetic preachers, figures with stronger personality and deeper conviction attracted notice. One of them is Vardhamana Mahavira, founder of Jainism and the other is Gautama, founder of Buddhism.

These two preachers were originally not the founders of any new religion. As a matter of fact Hinduism recognised wandering bodies of ascetics who renounced the world, performed no Vedic rites and passed their days in contemplations. Such bodies were known as *Bhikshus* or *Shramanas* and were distinguished from the Brahmins. Gautama founded one among many such sects that then existed and to distinguish them from the rest, they were called Sakyaputriya Shramanas. Thus Gautama and

Mahavira were then essentially social reformers and as it always happens, they did not propose to found any new religion opposed to the existing one. True religion is one but in course of time people following the same religion deviated from the right path and the preachers came to show the errors and the correct way leading to truth. Like the Sophists they moved from place to place telling people their experiences. They did not write anything but argued their position and explained things orally and because of their intensity of belief and strength of conviction carried all people, learned and ignorant, poor and rich, kings and subjects with them. Partly because of their strong personality, intense conviction, simple, honest and austere life and mainly because of their princely connexion and influence, these two preachers stood out as the most striking persons of this period. They had gathered round them a large number of followers. These followers in course of time formed a brotherhood and after a few generations with followers like Asoka, the teachings of Gautama Buddha became a new religion. Just as Jesus founded a sect or brotherhood with a few followers and St. Paul made Christianity a new force to be reckoned with, similarly Gautama left one small brotherhood of devout followers; Asoka, a few generations later made Buddhism a world religion.

Vardhamana Mahivira is popularly known as the founder of Jainism though according to the Jain tradition he is the last of the 24 teachers known as Tirthankaras. Vardhamana and his predecessor Parsvanatha only were historical persons, others being legendary figures. Vardhamana belonged to one well-known Kshatriya ruling class and was related to the ruling family of the Lichchhavis at Vaisali. At the age of 30 he renounced the world and

took to wandering from place to place continually practising self torture. At 42 he attained the supreme knowledge (Kaivalya). Henceforward he came to be known as Jina which means a man who has conquered his passions. To the word Jina Jainism owes its origin. For the remaining 40 years he preached his new faith. He is believed to have come in personal contact with some of the rulers of Magadha. He died at Pava in the Patna district. He left nothing in writing but his oral discourse and teachings were taken down by his disciples and afterwards all these were collected for the future guidance of the Jains. Jainism repudiated the authority of the Vedas, the superiority of the Brahmins and the practice of animal sacrifice. It was a revolt against the then existing Brahmanical religion but in course of time many Brahmanical institutions came to be virtually incorporated in it. The language of the sacred literature of the Jains was Ardha Magadhi, a spoken dialect of Magadha but centuries later Sanskrit again became the vehicle for religious discussion. Brahmin priests began to be engaged, and the worship of Mahavira and the Tirthankaras also came to be practised. The central tenet of Jainism is ahimsa or non-violence. Not only animals but inanimate objects also are believed to be with a soul (jiva) endowed with consciousness. Highest virtue consists in non-injury to others and taming one's passions. Practically the Jains are particularly strict in taking vegetarian food and do never kill any living being. They would rather offer food to ants, maintain old cows and other animals in pinjrapole when they are of no use to men. They do not take to agriculture as it involves killing of worms and insects. Besides the learned professions, trade and commerce is their main occupation and many Jains of Rajputana, Gujarat and Kathiawar are famous for their wealth and philanthrophy in India.

Jainism did not spread beyond India although its contribution to Indian culture is deeper than it is generally known.

Observing fasts and other austerities like committing suicide by gradual starvation are some of the Jain practices. Bimbisara and Ajatasatru were, according to Jain tradition, converted to Jainism and when old they are believed to have committed suicide by starvation. Alexander the Great took one Indian ascetic with him and this ascetic —of course we do not know whether he was a Jain or not— committed suicide by getting himself burnt alive without any outward expression of pain. Such an unusual feat must have excited the admiration of the masses. Self-torture became a feat to be practised and followed. Such ideas of self-torture along with the peculiar ideas of feminine chastity gave rise to the practice of *suttee*. Recently Mahatma Gandhi startled the world by reviving his spiritual weapon of fast unto death for political ends.

Jainism spread in the Deccan where the Jain monasteries were the centres of learning. They contributed a great deal to the development of literature; in mathematics and in the sciences the Jain contribution is considerable.

About one-fifth of the population of the world follows the religion of Buddha who was born in India and preached his religion to the Indians amongst whom for some fifteen centuries this religion thrived and prospered. But curiously, India has kept no memories worth the name of this noble faith. So complete has been the destruction of Buddhism. Buddhist monasteries and Buddhist records in India that Dr. Marshman, the distinguished missionary who lived and wrote in India for many years, could give no better account of Buddhism in 1824 than that his worship was probably

connected with the Egyptian Apis. Fortunately exhaustive materials on Buddhism are available today.

One Mr. Hodgson was the English Resident in Nepal (1833—1843). He collected a large number of manuscripts and sent them to the various associations for oriental studies and to some oriental scholars in India and Europe. Another Hungarian scholar, Alexander Cosma Korosi set out from Bucharest in 1820 and proceeded on his journey sometimes on foot and sometimes by water, devoting himself all the while to studying oriental languages and travelling through Baghdad, Bokhara, Kabul, Lahore, Kashmir and then to Ladak in trying circumstances and lived in Tibet where he collected manuscripts in the Tibetan language. Through the Japanese ambassadors a complete collection known as the Sacred Teaching of the Three Treasures containing some 2,000 volumes representing the entire series of the sacred books taken during sucessive centuries from India to China, was available in London. Manuscripts from Burma and Ceylon were also collected. By the labour of the oriental scholars, the early history of Buddhism in India became known. The Buddhist literature is divided into two groups. The one dealing with Buddhism in Nepal, Tibet, China and Japan is known as the Northern Buddhist literature and that dealing with Buddhism in Burma and Ceylon is known as the Southern Buddhist literature. The Southern tradition preserved mainly in Ceylon, practically unchanged to this day from the time when Buddhism reached that island in the 3rd century B. C. is more important for our purpose. This literature represents Buddhism as it originally was; the condition of the people and kingdoms represented in them are such as they actually prevailed in India of those days. From this source we learn not only what Buddhism originally

was but we also know more about India. her kings and people.

Gautama. the famous founder of Buddhism was born in the Lumbini garden in Nepal Terrai. His father Suddhodana was a Kshatriya king of the Sakya clan, possibly a Mongolian tribe in the Nepal area. At the age of 29 when a son was born to him, he left his family and the kingdom, and went in search of truth. He was worried by what he saw before his eyes. Though personally very happy he did not fail to notice how mankind was afflicted by disease, old age and death. In some caves in Gaya he studied philosophy and practised severe austerities for several years like other ascetics. On one occasion he was on the point of death as a result of prolonged starvation when one lady Sujata gave him some food. This gave him strength and with renewed vigour he started meditating and at last while meditating under the holy Bodhi tree at Bodhgaya, a few miles from the Gaya station in the E. I. Rly., enlightenment dawned on him. He got the remedy he was searching for. He became Buddha. He next proceeded towards Benares where in the Deer Park at Sarnath, six miles from modern Benares, he preached his new religion. The same impulse St. Paul may have felt when he proceeded towards Rome. At that time Magadha was becoming politically powerful while Benares was the centre of learning and culture, and once he could impress opinion at Benares it was not difficult to find followers to the new creed elsewhere. For the remaining portion of his life he continued to preach his new religion in Magadha and the adjoining states and at 80 at Kushinara in Nepal he died leaving behind a brotherhood of sincere followers. After his death his disciples met together in a general council at Rajagriha to collect the teachings of the Master. The collection is called *Tripitakas* (three baskets). The first one is

Vinaya Pitaka which lays down the rules for the guidance of Buddhist monks and the Buddhist Church; the second one, *Sutta Pitaka* is a collection of religious discourses and the third one *Abhidhamma Pitaka* contains an exposition of the philosophical principles of Buddhism. A century after, the second council met at Vaisali and revised the scriptures and banned some of the practices which crept into the new religion. By this time the Buddhist religious literature was finally and authentically compiled. During Asoka's reign the third council met at Pataliputra and the fourth and the last council met at Taxila under the patronage of Kanishka. The last council was the most important. By this time the original religion of Buddha underwent considerable change and the final rupture between the Hinayana and the Mahayana schools took place.

Buddha did not insist on the practice of self-torture and extreme penances. He advised a middle course. One should not indulge in material comforts and sensuous pleasures, nor should one practise self-immolation and starve. He is silent about God. All controversies regarding God, whether He exists, whether He is the creator, whether He gives salvation and bliss—all these according to Buddha —are beside the point. The fact remains that as soon as a man is born, disease, old age, afflictions of the mind, unhappiness and death are sure to follow. The real problem, therefore, is to find out if there is any way out. Buddhism begins with the miseries of this worldly existence and ends with *Nirvana* which means not joys and pleasures in the world but cessation of further birth and the consequent afflictions. Buddha accepts the then prevailing ideas of Karma and the Transmigration of soul. Death does not mean the end of the soul. It is only one portion of the journey. After death which means that the soul is simply separated from the body — the body will be destroyed but

the soul with its past records of all deeds and its desires will be born again in some form and in this way birth and rebirth will go on. The root cause is *trishna* or desire and if one can root out all desires from one's mind he will never be born again. As soon as this stage is reached, Nirvana which means putting out the burning fire (of desire), will be attained. Buddha adopted or permitted the adoption of the popular beliefs of the day, about 33 gods of the Rigveda, about Brahma, about Gandharvas, the angels, heaven and hell. But all this belief was modified so as to suit the cardinal ideas of Buddhism, that a holy life was the supreme good, and gods like men were striving through repeated births, after the Nirvana. There were doctrines and customs of Hinduism which, however, he could not accept. The caste system, asceticism and penances, Vedic rituals and killing of animals he disapproved. In case of such rites he enjoins a benevolent life and the conquest of all passions and desires, and he recommended a retirement from the world as the most efficacious means of securing this end. The recommendation was followed and it led to the monastic system—the earliest monastic fraternity known in the world.

It is said that Buddhism is an agnostic religion, that it knows no God, no Soul, no future world for those who have attained salvation. But as Rhys Davids has pointed out, the agnostic philosophy has come not once or twice but repeatedly to the forefront, when theology has failed to offer satisfactory replies to enquiries after the unknown and men have sought for new solutions to old questions. It is strange that Buddha and the agnostic philosophers of India, the Stoics of ancient Greece and Rome and some of the newest schools in France and England have [illegible] alike.

It is also true that Buddhism is pessimistic in the sense that it does not encourage improvement of material comforts. It emphasizes the transitoriness of all worldly things and teaches how to reduce one's desires rather than seek newer means of satisfying them.

In this respect the Prophet of Jerusalem also taught the same thing. Christ did not teach his followers how to improve the material comforts of life. Rather, he told mankind to be as meek as lamb, to love even the enemy and to pursue a life of righteousness and renunciation.

In one respect, however, Buddhism is unique in the world. "The great distinguishing feature of Buddhism is that it is a training towards a virtuous and holy life on this earth and takes little thought of rewards and punishment in a future world. Every prophet emphatically asserts that he is the Saviour of mankind and that if the followers love and respect him and through him worship God, they will enjoy pleasure and happiness in the future world. Buddhism holds out no such hope. It is a straight appeal to the most disinterested feeling in man's nature, sets before him virtue as its own reward and enjoins a long endeavour towards its attainment. It knows of no higher aim among gods or men than the attainment of a tranquil, sinless life; it speaks of no salvation than virtuous peace, it knows of no other heaven than holiness. It swept away from the field of its vision the whole of the great soul theory which had hitherto so completely filled and dominated the minds of the superstitious and the thoughtful alike. For the first time in the history of the world, it proclaimed a salvation which each man could gain for himself and by himself, in this world during this life, without any the least reference to God or gods either great or small. It discards all the tempting pictures of joys and pleasures in heaven.

Holding out no prospect of everlasting happiness, promising no happy heaven of gladness or bliss, Buddhism silently and sternly points to the path of virtue as its own reward and its own heaven. Herein Buddhism stands alone among the great religions of the world." (R. C. Dutt)

Like the followers of Jesus Christ, the followers of Buddha did not always live upto his teaching. Buddhists in India and elsewhere did not renounce all worldly pursuits completely. In fact, art, architecture, sculpture, painting, literature and science all received proper attention from the followers of Buddha. In course of time in India, the progress in all aspects of life took place under Buddhistic influence. Not only that, Buddhist kings and rulers fought battles, killed enemies and built empires.

Buddha did not mean to found a new religion. It is the question of putting old wine in new bottles, as Jesus Christ said some centuries later. Nor did Buddha consider himself an Incarnation of God. Of course he opposed some of the prevailing beliefs and practices and set up a new Order but initially in Buddhist holy places and pictures he was represented by some symbol such as the flower, the umbrella and the foot wear (Paduka). At that time there was no temple, no idol of Buddha and no worship by priests. There were monasteries where many of his followers led an ascetic life. In course of time as the new religion spread amongst the masses the prevailing ideas and institutions asserted themselves. Buddha came to be regarded as an Incarnation of God. Myths and legends came to be fabricated telling how Buddha was born in different ages for the salvation of mankind. From man he became God to his followers. His image came to be worshipped in temples with offerings of food, drink, flowers etc., by professional priests.

The stories which narrate how Buddha was born again and again, in different ages, are told in the Jataka literature. Not only how he was born in previous incarnations but also how he would be born in the future, has been set forth in the story. These things were not understood by the original followers of Buddha. These developed after Buddhism spread in different countries. This naturally gave rise to a controversy in the Buddhist Church. Under Kanishka a council was invited at Taxila (2nd century A. D.) where these issues were discussed. Here in this council the split was complete. Those who followed the older school came to be known as the Hinayanist or the followers of the Lesser Vehicle and those who followed the new school came to be known as the Mahayanist or the followers of the Greater Vehicle.

The spread of Buddhism was at first very slow and gradual. Under the patronage of kings and particularly by Asoka's missionary zeal when the entire resource of the biggest Indian Empire were at its disposal, Buddhism began to spread quickly and in the course of a few centuries saturated all walks of Indian life though many Indians might not have formally embraced Buddhism. Buddhism had a straight appeal to the commonsense of the ordinary people. In a caste-ridden society dominated by priests with obsolete rites and mystical obscurantism Buddhism was a solace and support to the masses of the people. The early life of the Buddhist monks and nuns, their sacrifice and renunciation were a source of inspiration to them. The masses were particularly impressed when they saw some kings and princes with so much wealth, power and happiness at their command becoming monks and leading a simple and virtuous life. This is what exactly happened with the early Christians. Devout Christians believed in God, who was in heaven and refused to accept the Roman

Emperor as god and would not burn incense at the altar of the Emperor. Such Christians were considered disloyal. They were persecuted and thrown before animals. Most of them without any outward symptom of nervousness and quite complacently courted martyrdom with the honest conviction that after death they would go to God's kingdom in heaven. Ordinary citizen were overwhelmed with what they saw. They began to realise that there must be truth in what the Christians preached, and people began to follow the new faith. So in India when people saw that kings and princes, the learned and the wealthy began to practise renunciation and follow Buddha, they also thought that there must be truth in the new faith. We shall later see that even enlightened Greeks like Alexander the Great and his companions were highly impressed by the Indian Gymnosophists particularly the way in which Kalanos courted death.

Buddhism gave India for the first time an organised Church. The Brahmanical religion was spreading in new areas no doubt but upto now for the propagation and proselytisation, it had no organisation proper. Now monasteries were being set up throughout the country and with a true missionary spirit the members dedicated their lives for the new religion and there is little wonder that it was successful. Besides, Buddhism was essentially liberal and accommodating. Seldom do we find any narrowness or fanaticism amongst the preachers. Asoka whose zeal for Buddhism was never surpassed by anybody, shows a wonderful spirit of broad-mindedness and there is practically no spirit of rivalry with others. In course of time, Buddhism which started practically as a sect of the then prevailing Hinduism, in the end, when its purpose was served, was absorbed in Hinduism and the fusion between the two gave rise to the new Hinduism which evolved. So

far as India is concerned Buddhism is completely gone but it left some permanent marks. Ahimsa or non-injury to others, renunciation of sensual pleasures and worldly comforts, monasticism, image worship and temples the theory of the Incarnation of God — these have become the features of the Hinduism of the masses and are mainly though not exclusively due to the influence of Buddhism and Jainism. High caste Hindus throughout India have given up non-vegetarian food. Onion and garlic are also not taken by many orthodox Hindus today. In the 4th century A. D. Fa Hien observed that people everywhere took vegetarian food. The only exception to this were the Chandalas who belonged to the lowest caste in Hindu society and they used to live outside and not inside the towns. Asceticism there was previously but the growth of large monasteries with different religious orders became a new feature. The Sangha or Order of the Buddhist monks is the first of its kind in the world. Some of these monasteries accumulated large wealth, maintained thousands of monks and were great centres of learning. Some became famous residential universities and Yuan Chwang in the 8th century A. D. gives a description of the Nalanda University which had some seven thousand students residing there. There were organisations for monks as well as for nuns. Buddha is said to have been unwilling to receive nuns in the Order but ultimately he agreed. Separate monasteries for nuns sprang up.

The ideal of Varnashrama discipline was partly modified. Boys were sent and dedicated to the Order and they became monks even in that young age and had not to pass through the householder's stage. The veneration for the cow as a divinity also became an essential feature of Indian life from this time. Barren cows and bulls were

sacrificed and used as food during the Vedic period. By the time of the Sutra period cows were sacrificed but not used as food. Apastamba summarily prohibited beef eating but even as late as the period of the Dharmashastras the killing of cows was not considered a heinous sin. During the time when the Jain and Buddhist influence was the strongest, killing of animals as such was denounced but soon the killing of the cow was particularly denounced.

Besides monasteries, temples called chaityas were built where usually stood the image of Buddha and the devotees used to worship it. Simultaneously the practice of building temples and image worship became current with the Hindus. At a later stage Buddha was conceived of as one of the ten Hindu Incarnations of God and many Hindus worshipped Buddha as many Buddhists worshipped Hindu gods. Sometimes Buddha was identified with Shiva and Shiva with Buddha so that the transition from the one to the other was imperceptible.

How is it that Buddhism has completely died in India, the land of its origin and flourishes in the distant countries of Asia? The explanation is that Hinduism had never died in India. By court patronisation it was for some time eclipsed by Buddhism. Afterwards, Hinduism absorbed most of the things of Buddhism and rendered it less attractive to the masses. The vested interest of the Hindus and their antagonism, the patronisation of the Gupta kings and peaceful propaganda by Hindu preachers and saints like Shankaracharya account a great deal for the revival of Hinduism. Another important cause is that Buddhism had a smaller following in the laity. It was confined mainly in the monastery so that when the Moslems invaded and destroyed the monasteries, the only stronghold of Buddhism was gone.

Outside India, however, Buddhism flourished. The main reason is that Hinduism is essentially based on the caste system. In a society where the caste system is unknown, a Hindu feels uncomfortable. The Hindus originally colonised and expanded in the South East Asia but gradually Buddhism found greater favour in the new soil. Hinduism with its caste rules finds a land except its own, uncongenial. But Buddhism has no such thing. Besides, the Mahayana Buddhism was particularly adaptable. Its doctrine of Bodhisatva or Incarnation of Buddha-Spirit enabled it to annex the pantheon of China and Japan and to turn their members into respectable Buddhist saints.

CHAPTER VIII

THE FIRST CONTACT WITH THE WEST

The North West of India—Gandhara, India's contact with Persia called Airyana — modern Iran. India and Greece brought together through Persia. The Yavanas. The extent of Persian influence. Gandhara in the 6th century B. C. a province of the Persian empire. Cyrus the Great, Darius, Xerxes. Greek sources of Indian history. Alexander's invasion — Taxila — its marriage market, exposing dead bodies to birds, the Indian yogis called gymnosophists— Kalanos. Alexander's encounter with the Paurava king. Alexander returns and dies. Effects of his invasion.

The areas now covering Sind, Baluchistan, Afghanistan and the North West Frontier Province formed the western boundary of India. The Westerners including the Persians and the Greeks in ancient times called Afghanistan and the Frontier Province as Gandhar. The ancient name is retained in the name of Kandahar, now a town in Afghanistan. The Punjab and Sind were known as the land of the Indus (from Sk. Sindhu) as we have already seen. The rest of India was then little known to the West. Modern U. P. and Bihar watered by the Ganges and the Jumna with their tributaries, were then known as the land of the East (Sk. *Prachya)*. From the 6th century B. C. western India was brought under closer political relations with Persia called Airyana. The Aryans spoke a dialect out of which old Sanskrit evolved and this dialect was closely connected with the language of the Persians whose sacred literature is the Avesta. Anyhow, culturally, if not politically from pre-historic times, the Persians and

the Indians were the same. The language, religion, manners and customs were originally the same though differences began to grow in course of time. The Indians of the Vedic times called themselves Arya which originally meant cultivators — later cultured people; similarly the Persians called themselves *Airya* from the same root, from which their country was called Airyana (modern Iran) One Persian prophet, Zoroaster (660-583 B. C.) preached a new religion and the Persians became Zoroastrians and the difference between the Indians and the Persians became quite sharp and marked. The empire which Cyrus the Great of Persia built, included Gandhara and thus had India to the east and Greece to the west. Both the Indians and the Greeks held appointments in the Persian Court. It was through the Persian empire that the Indians and the Greeks first had some contact with each other which, after the fall of the Persian empire and after direct rule by the Greeks in the border areas of India, brought the two old civilizations closer together.

Many Greeks migrated and settled in the Ionian islands which were directly under the sway of the Persian empire. When these Ionian Greeks revolted against Persia, the Greeks from Athens helped them and this directly brought the latter against Persia. This eventually led to the Persian invasion of Greece and the famous battles of Thermopylea, Marathon and Salamis. In Persia, the Greeks were called Ionians. The word is spelt in India in Sanskrit as *yavana* or *yona* both the words are pronounced in the same way. In ancient Indian literature the word *Yavana* always meant the Greeks. At a later stage, it began to mean any foreigner. The Persians and the Parthians were mentioned in the Vedas as Parsavas and Parthavas. The Jataka stories contain allusion to Indian

traders who went to Babylon. From India, tin (Greek, kassiteros, Sk. kastira), ivory (Sk. ilha), sugar (sukkar) came to be imported to Greece and Egypt through Persia. From the 6th century B. C. the intercourse between Greece and India through Persia became systematic and regular. Both Greek and Indian soldiers served in the Persian army, and Greek officers were employed in the Persian Court and the Satrapies. At no time were conditions more favourable for the interchange of ideas. There is a tradition that Pythagoras born in 582 B. C. came to India. At the time when Pythagoras was living in his Ionian home, all Asiatic Greeks were directly under the Persian empire. It is held that the philosopher Pythagoras was the first Greek who borrowed his learning from India. "He learnt the doctrine of the transmigration of souls and final beatitude from the Upanishads and the current faith of the Hindus and his ascetic observances and prohibition to eat flesh and beans were also borrowed from India. He learnt his elementary mathematics and geometry from the Sulva Sutras; his notion of the virtues of numbers is borrowed from the Sankhya philosophy and lastly, his idea of the five elements is essentially an Indian idea." (R. C. Dutt's History)

There is another tradition that some Indian philosophers found their way to Athens and interviewed Socrates. The many points of similarity between Indian philosophy and the ideas of Plato may not be accidental. It has been held that the vision of Er the Pamphylian with which the Republic closes is clearly a prototype of the Indian doctrines of reincarnation and Karma and the division of Plato's ideal polity into three orders—guardians, auxiliaries and workers are the Indian castes—Brahmins, Kshatriyas and Vaishyas.

However, the Persian influence proper was not considerable. It did not possibly penetrate into Magadha and was mainly confined in the North West, which accepted from Persia certain things. Thus coins of gold and other metal of certain shape and size came to be introduced in India. The Kharosthi script used in those days in the North West India was a Persian contribution. Besides, there might have been some amount of Persian influence on Indian art, architecture, sculpture and painting. Divergent views are held as to the extent of Persian influence on these. It is more likely that the likeness in art that is noticeable may be due to the common origin of both.

The North West India is extremely dry where the temperature fluctuates from terrible heat to severe cold. Rainfall is practically nil. In modern times, the rainfall in Sind and Rajputana is five inches, in Delhi twenty-five inches and in the Frontier Provinces even less than that. But in ancient times, it was not so. The climate then was equitable, rainfall heavy, pastures excellent and hence these areas were teeming with population with plentiful harvest and brisk trade. The Arab historians called Sind an oasis in the desert; Strabo wrote that Alexander's invasion was impeded by heavy and violent monsoon in the Taxila district and as late as the 14th century Timur lost his horses due to flood at Multan. A series of climatic changes have taken place in Central Asia including the North West India which have materially affected the course of history. Khotan, now a rainless desert was the seat of a flourishing civilization as late as the 9th century A. D. So was the North West of India and it was through this North West that India, whose isolation was of recent origin, maintained her contact with the rest of the world. The Persian provinces of the Macedonian Greeks and subsequently of Rome were the meeting ground. Ideas, armies

and merchandise moved freely from one to the other. Link was not only maintained with Europe and Africa but also with China through this trade route till the rise of Islam. This trade route was virtually closed when Persia was conquered by the Arab Moslems.

Cyrus the founder of the Persian empire (558-530 B. C.) annexed Hindukush and Gandhar to his empire and his son Darius I, who ruled from 521-485 B.C. sent an expedition under a Greek mercenary called Skylax to explore a sea passage from the mouth of the Indus to Persia. Skylax equipped a fleet and started from Kaspapyros (Kasyapapura, a frontier city of Gandhar) and was succesful in reaching the sea. With the information thus obtained Darius was enabled to annex the Indus valley which formed the 20th Satrapy and the most populous and rich province in the Persian empire. It paid the largest tribute amounting to 360 Euboic talents of gold dust (roughly some one and half crores of rupees). The Indian provinces continued under Persian rule under Xerxes, son of Darius I and an Indian contingent with their peculiar dress of white cotton which was unknown to the Greeks was included in the Persian army that marched against Greece in 480 B.C. Herodotus, (484—431 B.C.) the father of Greek history says that the Indian contingent consisted of infantry and cavalry under the command of a Persian general. The infantry soldiers were clad in cotton and armed with cane bows and iron-tipped arrows. The cavalry were mounted on horses but the chariots were drawn by wild asses. The same historian wrote more about India but obviously he had no direct and personal knowledge and mixed facts with stories and fables. During the rule of Artaxerxes, son of Xerxes, the Indian provinces may have continued under the Persian empire and one Greek physician of Artaxeres, Ktesias by name, gave some account of India. In the

Persian court as well as in the army, there were Indians and Ktesias may have seen some but his information was generally based on what he heard from others. These, therefore, are not so reliable but after Alexander's invasion, we get direct information of India from the Greek sources. With Alexander came many persons who were equally capable of using the sword as well as the pen. Alexander was no ordinary raider. He started his world conquest with the primary object of Hellenising the world. Cultured and educated as the Greeks were, they were certainly more able and reliable writers but unfortunately no contemporary records of Alexander's campaign have survived. All are lost. Only some fragments have been incorporated in the writing of later historians and our source of knowledge is mainly those later classical authors. Curiously enough, no mention of Alexander and his encounters is to be found anywhere in ancient Indian literature. There is absolutely no trace of Alexander and his campaign in contemporary or later Indian literature nor even any tradition has been left behind. Seldom in history do we find so important an event ignored with such unceremonious silence. One conclusion from this silence is that Alexander's campaign left absolutely no impression on India. He was, of course, not a mere raider like Timurlang or Nadirshah. As soon as he conquered a country he plated Greek colonies and built towns at strategic points. He had so many learned men with him and took many such lumineries with him from the vanquished countries. Had he been living a few years more and had he a chance for consolidating his conquests, the town he built in the mouth of the Indus on the Arabian Sea would have been another Alexandria and this part of Asia might have been Hellenised.

In 334 B. C. Alexander at the age of 22 set out from Macedon for his world conquest. Winning victory after

victory and subjugating country after country, he came to Persia and at the battle of Gaugamela in 331 B. C. defeated the Persian emperor and proceeded towards India. He had heroic encounters with the hill tribes on the Hindukush and Afghanistan and captured forts which were considered invincible. He crossed the Indus at Ohind above modern Attock by a bridge of boats and entered Taxila (Sk. Takshashila). In the meantime, he built new towns at important strategic points and restored the ruler to his former position provided he yielded and memained loyal to the conqueror. He kept some Greek garrisons under his trusted officers thus maintaining secure his communication. Uptil now he received no organised and joint resistance. He had to encounter small and petty chieftains, one quarrelling with the other and sometimes a jealous neighbour supported Alexander against his adversary. Taxila was the capital of Gandhar and was ruled by Ambhi. If formerly Taxila was a vassal to Persia, now by conquest it became subordinate to Alexander. But it was not due to the legal position that Ambhi welcomed the invader. He was jealous of his neighbour—the Paurava king who ruled over the land upto the Jhelam and Ambhi thought that with the help of Alexander the Paurava king called Poros by the Greeks could be easily crushed. The crossing of the Indus was something for Alexander and he must have thought that he was on the border of another new world almost unknown to them and the young world conqueror was certainly dreaming of new victory. He celebrated the occasion of crossing the Indus by feast and sacrifices and the ruler of Taxila is said to have sent 3,000 oxen and 12,000 sheep.

The Greeks rested and feasted for some time making preparation for the next move. Taxila was a prosperous city. It was situated in a fertile valley at the mouth of

the Khyber pass and naturally it was a halting place for traders and travellers. It was a big university town where sons of the upper middle class people were sent for learning the Vedas, medicine and other sciences. Taxila, it seems, had specialised in the science of medicine. Many diseases, particularly snake-bite could not be cured by the Greek physicians and Alexander procured some Indian physicians for his camp and informed his soldiers that any one in difficulty should at once come for aid to the palace. One Indian physician, it is recorded, was the court physician of Alexander and accompanied the general on his way back. Taxila, as it is to be expected, was a great cosmopolitan town and the Greeks saw many peculiar customs in it. There was a marriage market where poor fathers unable to dispose of their daughters brought them to the market and sold them by auction, the crowd being assembled by the sound of conch-shell and war drums. Obviously it was a Babylonian custom. The common form of marriage in India proper, as other Greek authors wrote, was for the upper classes, the Daiva system where marriage was negotiated by the father and the bride was given as a gift along with an ox to the groom. Another custom which the Greeks saw at Taxila was the practice of exposing dead bodies to be eaten by birds. This was the Zoroastrian practice and even now the Zoroastrian Parsees of Bombay do not burn or bury their dead bodies but expose them in the Tower of Silence where vultures eat them up. The third practice was the burning of the widows who voluntarily immolated on the funeral pyre of their dead husbands. This is a Hindu practice which was finally abolished in India during the Governor Generalship of Lord William Bentinck. The Greeks were surprised by another sight. On the border of the town there were some ascetics. They were learned and used to hold highly

philosophical discussions. When Alexander's messenger came and invited them to Alexander's court promising rich gifts, they declined saying that man's desires could never be satisfied by these gifts and that they coveted none. India would supply them with the simple wants they had and Alexander's threat, they feared not, because if they died they would be delivered from the body of flesh now afflicted with age and would be translated to a better and purer life. These ascetics possibly were Digambara Jains However, one ascetic whom the Greeks called Kalanos agreed to accompany Alexander. It seems that when some one greeted him, he, according to the custom even now prevailing in India, used the Sanskrit words *kalyanamastu* and hence he was called Kalanos by the Greeks. Kalanos accompanied Alexander and at Babylon he fell ill when he allowed himself to be burnt alive without evincing the slightest symptom of pain and the whole Macedonian army witnessed this feat in awe and surprise.

From Taxila Alexander proceeded and camped on the western bank of the Jhelam near Chilianwala where on the other side of the river stood the Paurava king whom Alexander had to encounter. That was practically the only resistance which Alexander met upto now in India. For a few days both the troops stood on the banks of the Jhelam watching one another. The Indian army of Poros consisted as usual of four divisions—the infantry, the cavalry, the elephants and the charioteers. Some 200 elephants looking like towers in a city wall, were distributed at intervals along the front line. The Greeks did not see elephants before and the huge size of the animal must have caused some terror in the Greek army. Alexander's experience hitherto in India was that though there was no joint and organised resistance against the invader and though these Indian tribes fought practically singly, the Indian soldiers

were no effete troops like those of Persia. They fought bravely and desperately, and never ran away. The Indian archers were also a terror to the invaders. The bows were long and the Indian archers placed the bow on the ground and holding it by one leg against the ground drew the arrow. Consequently the shooting was very effective. Crossing the river in direct opposition was out of the question and Alexander planned a different movement. He ordered for lighting torches, moving horses and beating drums for a few consecutive nights. At first the Indian army got alarmed and was ready for the encounter but afterwards when no crossing actually took place the Indian army after a few days relaxed. In the meantime one dark night Alexander moved a large part of the army some 20 miles up the river where there was one island on the river and sheltering behind the island in darkness made a successful crossing. News reached Poros late and then he attacked but there was rainfall before and the archers could not place their bows on the wet ground strongly nor could the chariots move in wet ground. Alexander made an outflanking attack with his mobile cavalry. The elephants got wild by the attack and started running helter skelter treading under foot the Indian soldiers and the whole Indian army was a chaotic mess. Poros fought bravely to the last and received nine wounds but even then he did not run. He was caught and placed before Alexander who wanted to know what treatment Poros expected from Alexander. "Treat me as a king" was the bold answer. The young world conqueror was highly satisfied and restored him to his kingdom. Alexander next proceeded towards the Beas where his soldiers mutinied and refused to follow their general any farther. The Greek soldiers left their home years ago and were undergoing all hardships of camp-life not knowing when they would be able to

return home. To proceed farther east, they thought, was to court disaster. They were told that the journey from the Punjab to *Prasii* would take thirteen days in deserts where no food, no water and no shelter was available. Besides, they heard that the king of Prasii which means Magadha, was waiting for Alexander with an army of 80,000 cavalry, 2,000,000 infantry, 8,000 war chariots and 6,000 fighting elephants. The prospect was nothing but gloomy and on their refusing Alexander reluctantly gave orders to retreat after constructing some 12 altars on the bank of the Beas to mark the last point which the world conqueror reached. While returning he did not follow the land route. He sent his admiral Nearchus with a navy newly constructed, down the river Indus, conquering the various tribes that lay on both sides of the river. At the mouth of the Indus on the Arabian sea, he built a town and obviously was thinking of another Alexandria which would unite the three then known continents. Through Baluchistan and Bolan pass a party proceeded and he himself proceeded through Makran. Nearchus with the navy reached the Persian gulf after about 3 years. Both the land forces, with terrible loss, after a march of some 500 miles, reached Persia and Nearchus joined them at Susa in April 323 B. C. After a little more than a year came the news that Alexander died possibly of malarial fever at Babylon at the age of 33. Instantly, the empire he built fell to pieces. At home, there started a scramble as to who would succeed to his vast possessions. The local people in the kingdoms which he conquered revolted and the Greek governors whom he appointed were either killed or they left. Within a few years one Indian adventurer, assisted by his astute Brahmin adviser delivered the whole of the Punjab, Gandhar and the Indus Valley of Greek rule. For the next few generations, the Maurya empire built by

Chandragupta ruled supreme in the whole of India including the North West.

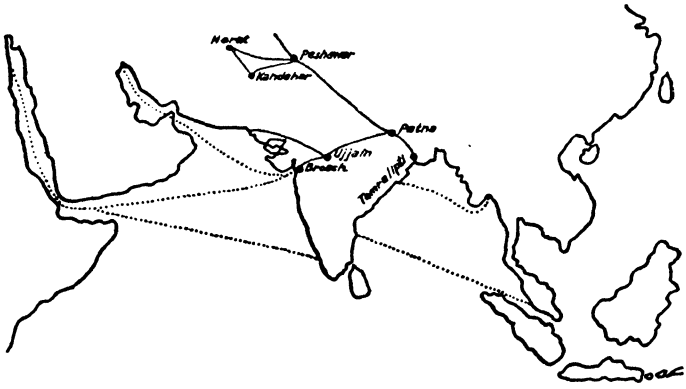
It will be useless to speculate as to what would have been the result had Alexander met the Magadha forces. Certain things, however, are clear. Alexander the Great was one of the best generals that the world has ever produced. His success over Poros depended mainly on his superb generalship. He had under him highly trained and well disciplined soldiers who had become thoroughly seasoned. Indian soldiers were brave; they were gallant fighters but they were wanting in able generalship. They depended a great deal on the elephants. On so many other occasions as now, these elephants had been the cause of defeat. The huge size of the animals may strike terror into the hearts of those who did not see them before but they hopelessly lack mobility and speed which the cavalry has. Besides, these animals in spite of their size are very timid and once they receive wounds, they begin to run away and this they do not into the enemy's camp but into their own. Unfortunately India did not learn anything not even the technique of war from the Greeks. For centuries after Alexander, the Indians fought in the same way with disastrous results.

Alexander's campaign in India was completely barren. It produced no effect. His empire collapsed on his death, and life in India continued as before. Neither in administration, society, religion, education, art or industry was there any change.

> The East bowed low before the blast.
> In patient deep disdain;
> She let the legions thunder past,
> And plunged in thought again.

Some indirect results, however, followed. Alexander's campaign in the North West exposed the interest weakness

of disunion among these principalities and Chandragupta Maurya took advantage of this political weakness. He drove first the Greeks away from those areas and then brought them all under the Magadha empire. The Greek kingdom of Bactria and Parthia, however, continued and centuries after, when the Magadha empire fell, Greco-Indian kingdoms in the North West rose and it led to some cultural fusion. But this took place centuries after and one can only say that Alexander's invasion was an indirect cause of this new culture. The other direct effect of Alexander's invasion was that for the first time India was exposed to the world. Before that, the West in general and the Greeks in particular knew practically nothing of India. Only some fables and stories of India's various tribes, animals, plants etc., were current. Though Alexander's contemporaries did not come as far as Magadha, later Greek ambassadors in the Court of Magadha stayed for some years and saw things for themselves and wrote some vivid account of India which supplemented by some indigenous sources, forms a virtually complete picture of India.



TRADE ROUTES IN ANCIENT TIMES

CHAPTER IX

INDIA BUILDS HER FIRST EMPIRE

The successors of Alexander and Chandragupta Maurya. Megasthenes. Swanbeck's collection in 1846. Pataliputra -- division of the empire — administration — the king and his court—procession and pageantry — character of the people and the country — seven division of the people—roads, trade, irrigation. Things new to the Greeks — incorrect information by Megasthenes. The discovery of Kautilya's Arthashastra in 1905. Certain political ideas of the Arthashastra —Kautilya's mandala or circle and the modern Balance of Power. Bindusara — foreign ambassador in his court.

After Alexander's death in 323 B. C. there was a scramble for power and at last his possessions were distributed amongst his generals. The Persian empire including India was allotted to Selucus from whom the Seluceid dynasty started. By 321 B. C. the Greek rule in the Punjab was at an end and Chandragupta Maurya was the ruler of the Magadha empire which included the Punjab and Gandhar. Selucus is said to have marched against Chandragupta (305 B. C.) to regain his Indian possessions. Exactly what happened is not known, but it is clear that Selucus was defeated and a peace was concluded by which Chandragupta married the daughter of Selucus, and gave his Greek father-in-law 500 elephants. Selucus gave up all his claims on the Indian possessions and moreover, ceded the provinces of Kabul, Herat, Kandahar and Baluchistan to the Mauryas. Selucus sent one ambassador to Chandragupta's Court at Pataliputra and Chandragupta sent his ambassador also. The friendship and diplomatic relations continued

unbroken upto the break up of the Magadha empire. The Greek ambassador Megasthenes stayed at Pataliputra for some years and wrote about India as he saw and as he heard. Unfortunately this account of Megasthenes is lost. But other Greek and Roman authors have quoted Megasthenes whenever India was concerned, in their books and all these fragments have been compiled by Dr. Swanbeck at Bonn in 1846. It has been translated in English by Mr. MaCrindle and the same continues to be our source of information for this period.

It had already been noted that the complete account written originally by Megasthenes is lost. Centuries after, classical writers to whom the original account may have been then available, quoted from him only those portions that were relevant for their purposes. Some account regarding Indian tribes, and their customs, peculiar animals and plants etc., were so extraordinary that those writers thought them to be false. Certain things Magasthenes himself a foreigner, could not properly understand and for certain things, he expressly depended on what he heard from the Brahmins. Thus the whole account is not fully reliable. Yet certain things are so clear and vivid and corroborated by other sources that no historian can afford to ignore them. For the history of India of that particular age, his account, whatever may be its defects, is monumental. We may briefly summarise his account of India and her people.

The city of Pataliputra, the capital of the empire was situated on the north bank of the Son, near the confluence of the Son and the Ganges and was in the shape of a parallelogram roughly nine miles long and two miles broad, surrounded by a broad deep moat which was connected with the river. The city-wall was a massive timber palisade

with draw-bridges, towers and gates at regular intervals. There were inns, gaming houses, race courses, meeting halls for guilds and merchants and religious sects as well as well-planned markets for indigenous and foreign goods displayed for sale. Houses were mostly wooden and arrangement had to be made for a fire brigade. In the heart of the city was the palace built of wood exquisitely carved, as is the case with many buildings in Kashmir, Burma, China even now. The palace stood in the midst of a park with ornamental trees, groves, tamed peacocks, pheasants and lakes full of coloured fish. In the Indian royal palace, Megasthenes says, there are wonders with which neither the Memonian Susa in all its glory nor the magnificence of Ecbatana can hope to vie. Her only rival was the palace at Persepolis.

The city itself had an excellent municipal administration. It consisted of six boards of five members each. The first dealt with the trade. It fixed rates of wages and safeguarded the rights of the artisans who were specially taken care of by the state. The second did the work of a foreign office. It examined all visitors coming in and going out. It saw their passports, arranged for their accommodation; if ill it provided medical treatment and if dead, disposed of the dead body and sent their effects to their relatives. This shows that a large number of foreigners used to come and stay in the capital and that intercourse with foreign countries was considerably greater than it is generally supposed. The third board was responsible for registration of births and deaths and maintained a regular census. The census possibly was maintained for taxation purposes but it is really surprising that India in that remote antiquity had something like a census operation while the modern world has introduced it only recently (England in 1801). The fourth board regulated sales and

examined weights and measures. Merchants had to take license from it. The fifth looked after adulteration of goods and possibly certified whether goods were old or new, spurious or genuine. The sixth was in charge of collection of taxes; usually one sixth was charged on all sales. Besides these boards, the municipality as a whole looked after public works of all kinds. It took care that no refuse was left on the roads, the drains were clean and the fire brigade kept in constant readiness.

The empire was divided into a number of provinces ruled by viceroys, usually members of the royal family. Under the viceroys there were officers paid handsomely by the state. The king used to look after all affairs personally and was assisted by counsellors who were Brahmins. The administration was bureaucratic and fairly centralised. A large staff of supervisors and inspectors used to tour the whole empire and a good and efficient system of espionage which included mendicant ascetics and courtesans, kept the king and his council informed of what was happening in the country. The king also had to be a hard working man. Getting up early in the morning by music as was the Indian practice, he visited the law courts and the hall of audience, received ministers, heard reports and attended to correspondence. He retired during noon for food and rest. He spent the evening in inspection of troops, fortifications and recreations. Hunting was a favourite sport. Gladiatorial fights, chariot races and wrestling were appreciated. Usually he was surrounded by a host of slave girls and when he appeared in public on his elephant, he was escorted by a bodyguard of foreign Amazons. He rode in solemn processions through the streets followed by a host of attendants in holiday dress, with golden vessels, such as huge basins and goblets six feet broad, tables, chairs of state, drinking vessels and lavers, all of Indian

copper, many of them set with jewels such as emeralds, beryls, and Indian garnets; others with robes embroidered in gold thread led wild beasts such as buffaloes, leopards and tame lions and rare birds in cages. The Amazons lined the streets, keeping the spectators at a safe distance. It was death to come inside the line of women. Chandragupta himself was an usurper and was always afraid of assassination. He never slept in the same room for two consecutive nights and had his meals tasted in order to guard against poison. Agent provocateurs were employed to watch what was happening in the city and no methods were considered too unscrupulous for getting rid of enemies of the king. Criminal law was extremely harsh. Death penalty was exacted for a number of crimes including injury to artisans and evasion of duties to the state. Maiming was inflicted for offences such as perjury. But this harshness of law was on the whole good because the administration of justice was efficient and there was complete peace and order throughout the country. Breaches of law were sternly dealt with and hence there were few law breakers. Honesty was the general rule. It is stated that in the whole of Chandragupta's camp of 400,000 men, there were no convictions for theft exceeding 200 drachmoe (£8) only. For contracts written records were seldom kept, lying being almost unknown and litigation few and far between. It is emphatically stated that a noble simplicity was the predominant Indian characteristic and that the people were honest and virtuous; in signing contracts written documents, seals and witnesses were not used. If anybody ever told a lie and a man was deceived, the latter would not go to the law court but would simply consider the fact of deception as being due to his bad luck. People were not litigious. He says, "The simplicity of their laws and contracts is proved by the fact that they seldom go to

law. They have no suits about pledges or deposits, nor do they require either seals or witnesses but make their deposits and confide in each other. Their houses and property, they leave generally unguarded. These things indicate that they possess good sober sense." This is clearly no exaggeration. Another foreign traveller, Yuan Chwang (*Hien Tsang*) some nine hundred years later noticed the same thing. Colonel Sleeman who spent his life among the Hindu peasants says, "I have had before me hundreds of cases in which a man's property, liberty and life depended upon his telling a lie and he has refused to tell it." Marco Polo says that the Brahman merchants were famous for their honesty and would not tell a lie for anything on earth. Even now the Indians have a sense of truthfulness and honesty peculiar to their own. If a man leaves a few thousand rupees to the Bania moneylender in the village, without any witness and without any written document, he is sure to get his money back after 20 years. To refuse he considers dishonesty. But the same Bania will not feel any scruple to submit false returns to the Income Tax office or to offer bribes to a railway or Government employee for some favour or to do business in the black market. Apart from those who live in the towns and have come in contact with modern civilised life, the uneducated and unsophisticated masses of peasants rarely tell a lie or steal another man's property though in other respects they may have gross vices and stupid superstitions.

The Greek ambassador noted with admiration that India had huge mountains, large forests, a multitude of vast rivers and large plains of great fertility where fruit trees of every kind not known to the Europeans were available. . There was a double rainfall in the course of the year—one in the winter season when the sowing of wheat took place as in other countries, and the second at the

time of the summer solstice which was the proper season for sowing rice and bosporum as well as sesamum and millet. The inhabitants of India always gathered in two harvests annually; and even should one of the sowings prove more or less abortive, they were sure of the other crop. But the cultivators did not always depend on the rainfall. The greater part of the soil was under irrigation and consequently bore two crops in the year. This system of irrigation was not the kind of well and *drone* irrigation referred to in the Rigveda but large reservoirs with long canals. Megasthenes describes how the officers of the state superintend the rivers, measure the land as is done in Egypt and inspect the sluices by which water is let out from the main canals into their branches so that every one may have an equal supply of it. Such being the condition of agriculture and the care which the state used to take for it, Megasthenes observes, "famine has never visited India and that there has never been a general scarcity in the supply of the nourishing food," and "the inhabitants in like manner, having abundant means of subsistence, exceed in consequence ordinary stature and are distinguished by their proud bearing." Besides, the people were skilled in the arts "as might be expected of men who inhale a pure air and drink the very finest water. While the soil bears on its surface all kinds of fruit which are known to cultivation, it has also underground numerous veins of all sorts of metals, for it contains much gold and silver, copper and iron in no small quantity and even tin and other metals which are employed in making articles of use and ornaments, as well as the implements of war."

The Indians live happily enough, Megasthenes continues, being simple in their manners and frugal. They never drink wine except at sacrifices. Their beverage is a liquor composed of rice instead of barley and their food is

principally a rice-pottage which no doubt means our rice and curry so common in India. In contrast with the general simplicity of their style, "the Indians love finery and ornaments. Their robes are worked in gold and ornamented with precious stones and they wear also flowered garments made of the finest muslin. Attendants walking behind hold up umbrellas over them; for they have a high regard for beauty and avail themselves of every device to improve their looks." But ordinary people used *dhoti* as is done today. To the Greeks who accompanied Alexander, cotton in its manufactured state was completely new. They described Hindus as clothed in garments made of wool which grew on trees. One cloth, they say, reaches the middle of the leg whilst another is folded round the shoulders. Hindus still dress in the same fashion as described, which is also alluded to in Sanskrit literature. In the frescoes of Ajanta this costume has been faithfully represented. In course of the last 3000 years, the Hindus have been using the same *dhoti*, and the only change that has taken place is possibly that it is now somewhat longer and broader.

Arrian gives an account of the various conveyances in India. The animals, he says, used by the common sort for riding on, are camels, horses and asses, while the wealthy use elephants for it is the elephant which carries royalty. The conveyance which ranks next in honour is the chariot and four; the camel ranks third; while to be drawn by a single horse (no doubt the *ekka* so common in Northern India) is considered no distinction at all.

Megasthenes writes that writing was not known in India. This we know, cannot be true. What it means is that writing was confined to a very narrow circle and learning was transmitted orally and people depended

mainly on the memory of the Brahmins. He further notes that slavery was unknown. This also cannot be true. Some kind of mild domestic slavery existed. But it may be that slavery as it obtained in Europe did not exist in India. Megasthenes also failed to notice the caste system in all its implications. According to him the society was divided into seven classes. First were the philosophers like the Sophists of Greece. They performed the public and private sacrifices and acted as diviners and astrologers. Like the Roman augurs they had to declare the auspicious days for undertakings and if afterwards the prophesy proved false, they would be dismissed and would possibly keep silent for the rest of their lives. The second class consisted of the agriculturists who used to plough the fields and seldom left their villages. They were left undisturbed even when contending troops were fighting near about. The conception of total war in the modern sense was then unknown. So when a war broke out, soldiers fought amongst themselves by the peasants tilled the soil without any disturbance. To destroy crops was also no part of the war policy and hence not practised. A war, so far as ordinary people were concerned, did not affect local laws and customs nor did it interfere with agriculture and trade. The country is from Rigvedic times based on self-organised villages and grouping of the villages into states and empires left their inhabitants little affected. This explains why the Indian way of life has continued uninterrupted even to this day. The third class consisted of the shepherds and hunters. These might be the aboriginal tribes who were being assimilated into the Indian society. They destroyed the wild birds and animals, trapped and tamed elephants on behalf of the government. The fourth class consisted of the artisans who were a privileged class receiving many benefits and immunities

from the state. The fifth was the military class. Chandragupta had a vast standing army recruited mostly from certain castes and sects, and they were professional soldiers paid and equipped by the state. When not engaged in active service, they spent their time in eating and drinking. They were maintained by the king and hence they were always ready, when occasion would arise, to take the field. This standing army containing 6,000,000 foot soldiers, 30,000 cavalry and 9,000 war-elephants was controlled by the War Office whose administration was carried on by six boards of five members each. The first was to cooperate with the admiral of the fleet, the second for transport, the third was in charge of the infantry, the fourth in charge of horses, the fifth of war-chariots and the sixth of elephants. That the Mauryas had a formidable army large in size, fully equipped and efficiently organised is borne out by the fact that with this army Chandragupta was able to inflict a defeat on so brilliant a general like Seleucus. Not only that, the belief grew strong with the Greeks and with the Romans at a later stage that Alexander did not proceed further east through fear. It is stated: "Thus Alexander the Macedonian, after conquering all Asia did not make war upon the Gangaridai as he did on all others; for when he arrived with all his troops at the river Ganges and had subdued all the other Indians, he abandoned as hopeless an invasion of the Gangaridai when he learned that they possessed four thousand elephants well trained and equipped for war." Megasthenes also noted that there was a tradition in India then that India was a country which was never invaded by any foreigner before nor did any Indian ever invade any foreign country. It was this large standing army so thoroughly organised for any eventuality that gave peace and security throughout the empire and this explains why

Asoka, the illustrious grandson of Chandragupta could afford to build up an empire of piety on it. The emperor could devote practically all the resources built up by his grandfather for the propagation of Buddhism only when peace was firmly secured throughout the country.

The government of the Mauryas was a strong and absolute autocracy. Some control over the government by the enlightened Brahmins there was, but popular control as such there was none. The restrictions on trade as well as on private liberty of the people particularly by the spies must have been oppressive. The punishment inflicted for minor offences was also extremely cruel. But the government was strong and gave peace inside and protection against danger from outside. It was ruthlessly efficient and as between man and man administered stern but fair justice.

The sixth class in society consisted of the inspectors and overseers, a branch of the civil service specially employed by the king. They moved from one end of the country to the other and submitted confidential reports upon the work of the local officials by a system of well-organised espionage. Courtesans and mendicant ascetics were particularly used for this purpose. Later, these supervisors of the state were made the main instruments by which Asoka started the propagation of Buddhism. The seventh class consisted of the royal counsellors. They were the highest government officers. They were Brahmins and were held in the highest esteem. Megasthenes obviously makes the classification on the basis of profession or occupation and says that no one could marry outside his caste nor exchange his profession nor could one take to more than one business. This might be true to some extent

but he failed to notice the caste system in all its implications as we know them from the Dharmashastras. It might be that the caste rules as prescribed in the Dharmashastras were more or less the ideals suggested by the Brahmins and that in practice not observed. The injustice involved in the caste system was not much felt and the then society was more liberal and flexible than the one indicated by the Dharmashastras; otherwise these things would not have escaped his notice.

Megasthenes is also silent on religion. There is no reference to idol-worship or temples. But the similarity between Greek philosophy and Indian philosophy is noticed. "In many points their teaching agrees with that of the Greeks—for instance that the world has a beginning and an end in time and that its shape is spherical; that the Deity who is its Governor or Maker, interpenetrates that whole; that the first principles of the universe are different but that water is the principle from which the order of the world has come to be; that besides the four elements there is the fifth substance (*akasa*-ether) of which the heavens and the stars are made; that the earth is the centre of the universe. About generation of the soul, their teaching shows parallels to the Greek doctrines and on many other matters. Like Plato, too, they interweave fables about the immortality of the Soul and the judgment inflicted in the other world and so on."

Of the *ashrama* life of the Brahmins, there is a nice description. "From the time of their conception in the womb they are under the guardian care of learned men who go to the mother and under the pretence of using some incantations for the welfare of herself and her unborn babe, in reality gave her prudent hints and counsels. After their birth the children are under the care

of one person after another and as they advance in age, each succeeding master is more accomplished than his predecessor. The philosophers have their abode in a grove in front of the city within a moderate sized enclosure. They live in a simple style and lie on beds of rushes or (deer) skins. They abstain from animal food and sexual pleasures and spend their time in listening to serious discourse and in imparting their knowledge to such as will listen to them. After living in this manner, for seven and thirty years, each individual retires to his own property where he lives for the rest of his days in ease and security. They then array themselves in fine muslin and wear a few trinkets of gold on their fingers and in their ears. They eat flesh but not that of animals employed in labour. They abstain from hot and highly seasoned food. They marry as many wives as they please with a view to having numerous children; since they have no slaves they have more need to have children around them to attend to their wants."

Megasthenes has very faithfully given a geographical description of India. Many rivers, mountains and towns cannot exactly be identified but it is clear that political and cultural India then included Orissa and Bengal in the east, Saurashtra on the west and Pandya on the south. Regarding Pandya, he says that that was the only kingdom ruled by women and gives a legendary explanation of it. "Further south, there is Taprobane (Pali—Tambapani, modern Ceylon) separated from the mainland by a river and that this country is more productive of gold, large pearls, elephants and palm groves."

The government took great care in constructing roads which connected the distant provinces with the capital and one such royal road was the one that connected Taxila with

Pataliputra; another connected the capital with Ujjain. In the city of Pataliputra, the municipality had to supervise whether roads were properly repaired and bridges were kept in proper condition. Megasthenes says that milestones were used by the roadsides at regular intervals.

Trade was evidently in a flourishing condition. Like Taxila in the North West, Pataliputra became a cosmopolitan city with merchants from foreign countries with their goods in the bazaars. Silk, muslins, the finer sorts of cloth, armour, brocades, embroideries, rugs, perfumes, drugs, ivory, jewellery and gold—these were the goods which India exported outside. Besides, there was the Shipping Department of which Megasthenes gives a hint, but Kautilya's Arthasastra gives further details and it appears that coastal trade was also briskly going on. Trade with Ceylon, the Golden Chersonese and the Far East must have been going on regularly from the coastal towns of Orissa and West Bengal.

It appears that the Indians had no good coinage system during this period. Athenian owls and Persian dorics were freely used. The indigenous Indian coins made of silver, square in shape and stamped by means of a punch were not of a good standard.

Several things the Greeks saw in India were quite new and many others they heard of were equally new and hence they disbelieved them. The huge elephant was a surprise and terror to them and they described faithfully the animal, how it lived and worked, and how it was caught and tamed. The description agrees with present-day practice almost literally. The strength and power of a tiger that can bodily carry a buffalo is another wonder. The python large enough to eat up wholly a deer with

its horn is a third. Reeds 50 cubits high (obviously bamboos which grow profusely in Assam now), reeds which yield sweet juice (sugar cane) surprised them not a little. Peacocks, pheasants, parrots which could imitate human voice excited their admiration. Certain Indian customs, they did not appreciate. That the Indian had no common place for dining nor any fixed time for taking meals, as true then as now, was not appreciated. The practice of Suttee and some yogic practice by which the ascetic remains motionless for more than 24 hours were noticed with awe and admiration.

The account of the Greeks including Megasthenes and the Buddhist and Jain literature of this period when India came in direct contact with the West, is corroborated by a treatise in Sanskrit ascribed to Kautilya. This is the Arthashastra which fills up an important gap in ancient Indian literature. The Arthashastra is the Politics of Aristotle. It deals practically with all questions of statecraft in a systematic way and surpasses Machiavelly in its unscrupulous but realistic approach. There was a literary tradition in India that one Brahmin minister of Chandragupta called variously as Kautilya or Chanakya or Bishnugupta, by diplomacy and stratagem brought about the fall of the Nanda dynasty and installed Chandragupta on the throne of Magadha. The rules and principles associated with his name were always quoted by later authors but the exact treatise of this crafty Brahmin was lost. About the year 1905 one Brahmin of Tanjore handed over a manuscript to Mr. Shamashastry, the Librarian of the Mysore Government Library. This book was then translated into English and forthwith it created a great sensation amongst scholars. It is now generally believed that this Arthashastra was not composed in the 3rd century

B. C. It must be an adaptation of the original one by somebody else in the 2nd century A. D. Nevertheless, the social and political condition it depicts is genuine and can be accepted as a supplement to the account of Magasthenes.

The Arthashastra elaborately deals with the various forms, organisations and offices of the state. It discusses the principles that should be followed while dealing with neighbouring states and the various lines of offence and defence against them. Duties and responsibilities of the officers of the state, from the highest to the lowest are enunciated and directions unusually thorough and modern (for instance, espionage) are given. It is quite clear that the Arthashastra was not the first of this kind of literature and the author quoted from his predecessors who are completely forgotten and lost. It is a highly systematic and thorough treatment on the subject of politics including economics and the states represented in it were not loose associations of persons in petty areas but fully matured and neatly organised states. A few instances from the Arthashastra will show how advanced in statecraft the Indians were in those ancient times. The conception of the sovereignty of the state was clearly understood. It was called *Dandah*. The principle of the balance of power was appreciated. It was called Kautilya's *mandala* or circle. This geopolitical complex or *circle of Kautilya* may be briefly described thus. A state desiring to be powerful and victorious occupies the hypothetical centre. Frontward as well as rearward the first state whose boundary touches his is his enemy. The next state whose boundary touches the enemy's state is his ally. The next state is his enemy's ally and the next his ally. A state which is located close both to his and the enemy's state, capable of helping both the states or resisting any is called the *madhyama* or mediatory power, and the state which is located further

from these is called *udasina* or the towering or the highest. Ignoring the mediatory and the towering states our state should ally with and fight against the states in this circle of eight states strictly according to the geographical position. In practice this theory in modern Europe would mean this: France should consider Spain, England and Germany her natural enemies and Portugal, Scotland, Ireland and Russia her natural allies. France embarking on war upon Germany should begin by taking steps to keep her rear safe. She should have Spain attacked by Portugal, manage to play off the anti-English forces in Ireland and Scotland in such a manner that England may be preoccupied at home and unable to attack France in support of Germany. As Germany on the other hand is likely to have China as her natural ally (supposing there is no other state between Russia and the Far East) the French diplomat should set Russia against China and so on. It is clear that the diplomatic feats conceived of by the Hindu political philosophers could be verified almost to the letter by numerous instances in European and Asian history specially in ancient and mediaeval times. In modern times besides the geographical location of the states certain other factors e.g., race, religion, cultural sympathy etc., are to be included. When this is done Kautilya's principle of the circle becomes 100 per cent uptodate and clearly applicable in the 20th century international politics. One rule which a state is to follow, according to Arthashastra, is this: Consider your immediate neighbouring state an enemy. The state on the other side of your neighbour is your ally. This virtually is the principle on which the foreign policy of all powerful states of Europe was based from the 16th century onwards. When France is strong her two neighbours on two sides Spain and Germany as well as England are allies. When

Germany is strong Russia and France are allies. Similarly Scotland and France were traditional allies against England. Similarly a sixfold policy to be followed by a state in different circumstances, can be practised by a modern state with profit. The sixfold policy includes (1) Peace, (2) War, (3) Neutrality, (4) Military expedition, (5) Alliance, (6) Making peace with one and waging war with another.

Chandragupta, the founder of the Maurya dynasty of Magadha and the first historical emperor of India was a youthful adventurer. He came of the Moriya clan which ruled over a petty state and was related to the ruling family of Magadha. Somehow, he incurred the displeasure of the king of Magadha, called Agrammes by the Greeks and fled away in the Punjab where he is said to have met Alexander the Great. He advised Alexander to proceed towards Magadha and assured him that to conquer Magadha would be no difficult job because the present ruler was of low origin and hated by his subjects for his avarice, low birth and meanness. It is said that Alexander the Great was so offended by the boldness of speech by this adventurer that he ordered the youth to be killed but the youth managed to flee away swiftly. Scarcely had Alexander left India when revolt against the Macedonians took place and before effective steps could be taken he died. Chandragupta, it is said, assisted by Chanakya, the crafty Brahmin organised a band of soldiers from the North West and drove away the Macedonians. Next with his troops, and assisted by Chanakya, he invaded Magadha, and by putting to death Nanda, the king with all members of his family usurped the throne. It is said that Nanda was the son of a barber who had illicit connexion with the queen of the former king. The barber paramour assassinated the king and usurped the throne. The son of the

barber and the queen who succeeded was hated by all and Chandragupta had not much difficulty in exterminating the old dynasty and founding his own. With the vast resources of the kingdom of Magadha this Chandragupta conquered and brought under subjugation all the kingdoms of northern India and the empire included the whole of the North West including Afghanistan and Baluchistan, the whole of northern India from Nepal in the north to the mouth of the Ganges in Bengal, the Narbada in the south and Gujarat in the west. The empire thus extended from the Bay of Bengal to the Arabian sea. He ruled with stern severity and consolidated the empire on a firm basis. On his death (297 B. C.) he was succeeded by his son Bindusara who is called Amitraghata by the Greeks. Not much of him is known. In his court stayed one Greek ambassador, Daimachus by name and he also wrote an account of India but unfortunately, that is completely lost. Bindusara must have been a capable ruler and had brought the Deccan upto Madras under subjugation and maintained commercial and diplomatic relations with Syria. It is said that he requested Antiochus of Syria to buy for him figs, raisin wine and a Professor, and Antiochus sent him figs and wine but no Professor as it was not lawful to buy a man there. It is clear that Greeks had a reputation for learning and the Indian king wanted to import Greek learning into India where knowledge was seldom kept and preserved in books but was always learnt orally from a teacher who knew his subject by heart. So Bindusara wanted a learned man to be sent to India.

CHAPTER X

THE PHILOSOPHER KING OF INDIA

Asoka—the Kalinga war and his conversion. Sources of information—extent of the empire. Dharma and what Asoka did for dharma—the lion capital of Sarnath and the dharmachakra. Ahimsa and non-killing. Foreign missions. An estimate and conclusion. Effects of his mission abroad. No direct evidence—indirectly certain Christian ideas and ceremonies influenced by Buddhism—the Essenes—their celibacy—John the Baptist, Buddhist chaitya and the Christian cathedral—trinity, baptism, celibacy, fasts, procession, litanies, tonsure etc.

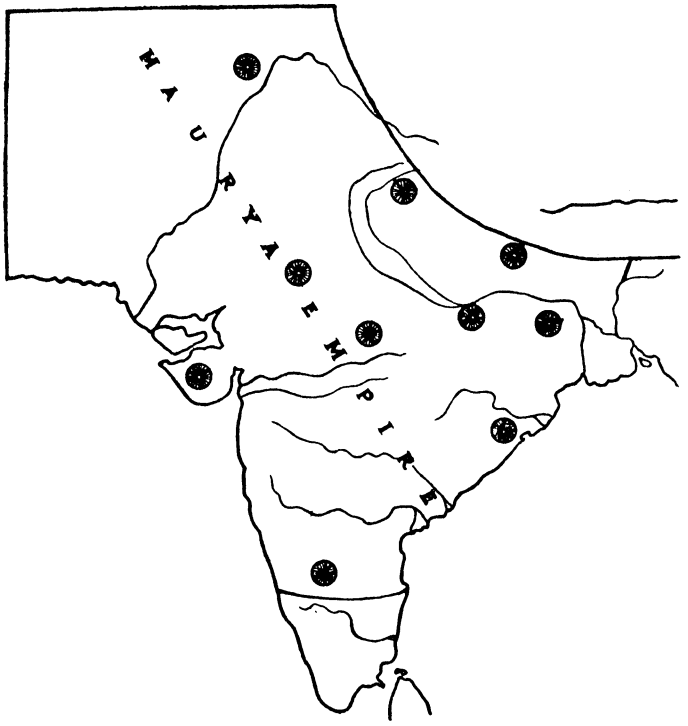
In 273 B. C. Bindusara was succeeded by his son Asoka, the greatest ruler ever born on earth. Before he ascended the throne of Magadha, he was a provincial viceroy at first at Taxila and then at Ujjain. After consolidating his position, he invaded Kalinga—that region on the coast of the Bay of Bengal between the Godavari and the Mahanadi. This was his first as well as the last war. Severe resistance and stiff fighting took place during this war and Asoka records with sorrow that 150,000 persons were carried into captivity, 100,000 were slain and that many times that number perished in famine, pestilence and other calamities that followed. The emperor was extremely mortified and a profound change took place in his mind. From this time the emperor gave up all warlike pursuits and directed all his energies for the welfare of his subjects and of mankind. The Kalinga war is thus a turning point in the history of mankind.

The main source of our information is the numerous inscriptions which Asoka caused to incise on rocks, pillars

and caves. They are fairly large in number, and distributed widely in all parts of India from Orissa in the east to Kathiawar in the west, Mysore in the Deccan to Peshawar in the north. On the body of the monolithic stones and rocks on the road or near some important place where large numbers of people are expected to pass and in caves used for ascetics, Asoka inscribed his edicts. In the North West India, these were in the Kharosthi script and in other places in the Brahmi script from which the modern Devanagari script and other Indian scripts have come. The language is Prakrit which was the spoken language actually used by the people and not Sanskrit, the sacred literary language used mostly by the learned few. These inscriptions seldom refer to Asoka's military conquests or political exploits. They are mainly religious or moral propaganda. Some inscriptions are autobiographical. They explain what the emperor felt and thought. Thus the effect of the Kalinga war on his mind and his determination not to resort to killing are expressed in one inscription. In some his missionary activities—how he had sent his envoys for the propagation of the Law of Piety to distant Hellenistic kingdoms are recorded. In others, he advises his subjects to follow the Law of Piety.

The extent of his empire can be ascertained by the distribution of these inscriptions. Chandragupta's empire he inherited in tact and Bindusara's conquest of the country below the Vindhya mountains between the Godavari and the Krishna, was also retained. He himself conquered Kalinga. The empire thus extended upto the Hindu Kush containing the whole of Afghanistan, Baluchistan, Kashmir and Nepal in the north, the whole of northern India from the mouth of the Ganges in Bengal to Kathiawar on the Arabian Sea and the whole of the Deccan

except the extreme south where Pandya, Chola, Keralaputra and Satiyaputra were independent. Some of the wild tribes in the North West, because of the natural position of the country and its people, may have enjoyed autonomy as they do now and the tracts separating Northern from Southern India were also semi independent and other areas were directly ruled by the Maurya government,



THE MAURYA EMPIRE UNDER ASOKA

The small circles indicate the spots where Asoka's inscriptions were found.

divided into four provinces with a viceroy each. The central division was ruled directly by the emperor at Pataliputra. The North West was administered by a viceroy from Taxila, the Eastern division by a viceroy from Tosali in Kalinga, the Western division from Ujjain and the Southern division beyond the Narbada was administered by the fourth viceroy.

He came under the influence of one Buddhist monk of Mathura, Upagupta by name. He was soon converted to a sincere and devout Buddhist and started on a pilgrimage to all Buddhist holy places. He went to the Lumbini garden, the Bethlehem of Buddhism. Asoka caused to be erected a pillar with the words "Here was the venerable one born" incised on it. The pillar with the words as legible as they were when incised, stands even today. He then visited Kapilavastu, the place of Buddha's childhood, Sarnath where Buddha preached his first sermon, Sravasti where Buddha lived for many years and Bodh-Gaya where under the Bo-tree, Buddha attained enlightenment and in all these places he granted liberal endowments and raised memorials most of which exist even today.

Asoka himself became a monk with yellow robe, made Buddhism the state religion and set the entire resources of the vast and well-consolidated empire for the propagation of *Dharma* or the Law of Piety. But he did not abdicate and retire nor did he in any way relax the administrative machinery. His supervision and control was as strong as before; only the purpose had changed. "The chiefest conquest is that won by Dharmma and he begs his descendants to rid themselves of the popular notion that conquest by arms is the duty of kings; and even if they should find themselves engaged in warfare, he reminds them that they might still find pleasure in patience and gentleness and

should regard as the only true conquest that which is effected through the Law of Piety." Therefore, he did not disband the army nor abolish capital punishment and reduce the rigours of the criminal law. Convicted criminals were given only three days grace to prepare for death.

It is difficult to translate the Sanskrit word *dharma* into English. The English equivalent of dharma is law and as the word law has been used in different senses, so the word dharma also means different things in different ages. Today it means religion e. g., Hindu dharma, Mahomedan dharma, Christian dharma etc. In ancient India this was never the meaning. Usually in such cases for different doctrinal matters the word *mata* or *matavada* was used. Sometimes dharma nowadays means certain rites and ceremonies of different religious groups. In this sense in ancient India usually the word *achara* was used. However, in ancient India, as in the modern, the word dharma means virtue as opposed to sin. The most honest, truthful and virtuous character in the Mahabharata is Yudhisthira and he was called the son of Dharma or *dharma incarnate*. In this sense we say the path of dharma or adharma. Sometimes, dharma means law in the sense of rules regulating man's conduct. Thus the *dharmashastra* provided rules on criminal law as well as laws relating to property, inheritance etc. This law was sometimes ethical based on the internal conscience of man and sometimes positive command of the sovereign in the Austinian sense. Sometimes, dharma means one's duty. Thus the dharma of a student is to respect his teacher, the dharma of a king is to protect his subjects. Most usual sense of dharma, however, is truth and justice. Those principles and rules whether in the physical world or in human society which make no discrimination, which apply uniformly to all irrespective of power

and position and which admit of no exception, or variety in different countries and ages, are the rules of dharma. Rules of dharma are universal and apply to Buddhists and non-Buddhists. They are also good for non-Buddhists and these precepts are of universal value and Asoka asked his subjects as well as subjects of other countries to follow them. Toleration of others, equal endowments to different sects and broad catholicity were the very basis of his dharma and hence its equivalent is Piety or Righteousness. In the political sphere, law conveys the sense of universality and all-comprehensiveness applying to all subjects alike. The symbol of such a conception is the wheel or chakra, which rolls on everywhere without any obstruction. When the authority of such a sovereign ruler applies over all from end to end, or from horizon to horizon as understood in India, he is called a Chakravarti. It is this conception of the political dominion of a secular over-lordship, that is employed, metaphorically with a spiritual significance in the conception of Lord Buddha as Chakravarti. "A king I am," says Buddha, "the king supreme of righteousness. The royal chariot-wheel in righteousness do I set rolling on—that wheel that no one can turn back." This, therefore, is the chakra or circle symbolising the law of Righteousness taught by Buddha and preached by Asoka. So his dharma is not religion. It is righteousness and piety in the widest sense and is characterised by liberalism and universality so uncommon in the world.

Certain other symbols came to be associated with his religion but the most important of them was the circle (chakra) over the stone pillar erected by him to commemorate the great event of Buddhism. There stood the capital which is the figure of a lion with four heads. This capital, now at the Sarnath museum has become famous.

It contains the circle, called the Wheel of Piety (Dharmachakra) now to be seen on the Indian National Flag. The idea of this Wheel of Piety (Dharmachakra) is that it moves evenly and is applicable to all persons alike in all ages. The circle was also a Hindu symbol. Formerly, Krishna, the founder of Bhagavatism, held this as a weapon and inflicted punishment with it on all evil-doers. The circle as a symbol of Asoka's Law of Piety is used in a slightly different sense. It stands for the Law of Piety or Righteousness which never ceases nor stops but moves impartially and evenly; it affects mankind uniformly and in all ages. So noble and sublime an ideal has rarely been held and Asoka exerted himself heart and soul to put it into practice.

The religion of Buddha was based on asceticism and only those who wanted to be free from the afflictions of life and were prepared for renouncing the world could follow it. Now under Asoka the movement is less religious but more moral, and people without renouncing the world could practise it. Asceticism was not stopped but the scope for practising dharma without asceticism was widened.

Certain things were discouraged and gradually stopped. Ahimsa or non-killing became the leading tenet of this new religion and possibly ahimsa was stretched too far. Before his conversion thousands of animals, were slaughtered every day for the royal kitchen. Gradually the number was lowered to only three animals a day and then totally stopped. The royal hunt was a favourite recreation. This was also stopped. Within the empire rules were issued putting restrictions on the killing of animals for food. Certain animals could not be killed at all. For fifty-six special days, no killing of animals on any pretext

was allowed and for other days restrictions in different ways on the flesh-eating population were imposed. Besides, hospitals for animals were set up and a new sanctity for animal life, sometimes at the cost of human life, grew. Not during Asoka's time but afterwards, the ideas of ahimsa became such that in Gujarat, a man was hanged for killing an animal. Kindness to animals became a creed and not only ordinary domestic animals like cows, horses etc., which once were useful and later became old and useless, were looked after and taken care of in the hospitals set up and maintained at heavy costs but vermins, ants, etc., were also the objects of kindness and charity. Flesh-eating was already discouraged. The *Shramanas* never ate them and the Brahmins while in the order of student life upto a particular age and after retiring from worldly affairs, did not use them. After Asoka, it became out of fashion for respectable castes to use them but it is not yet prohibited and did not cease altogether. Some five centuries after, flesh-eating altogether stopped in India except amongst the lowest castes, the Chandalas who used to live outside the city walls, as observed by Fa-Hien. In course of time, it became so repulsive that anything that bore some superficial resemblance of flesh of animals was not used. Thus garlic and onion when cut to pieces look like not ordinary vegetables but flesh of animals and hence these were also prohibited.

Asoka kept in tact the existing bureaucratic machinery and added one new department called the censors whose business was to travel far and wide and supervise and report whether the Law of Piety was actually observed in the empire. The old inspectors and supervisors along with the new censors moved from place to place, were available

to all citizens and gathered all information regarding co-operation and oppression by local agents and officers of the empire. Besides toleration of all creeds except some practices such as killing of animals, Asoka preached ethics to which nobody can take any exception and did things which benefited all and therefore, there was scarcely any resistance. He caused trees to be planted, wells and rest houses to be set up by the side of the roads in order that travellers might get the benefit; medicinal herbs were imported and planted; hospitals were built. These must have benefited the countryfolk immensely. Besides, the very idea of so big and powerful an emperor wearing yellow robes and practising a pious life was strikingly impressive and ordinary people were convinced of the truth and grandeur of the new faith.

For the propagation of Buddhism, Asoka sent missionaries far and wide. Missionaries were sent to Kashmir and Gandhara, to Mahisa (near modern Mysore), to Vanavas (probably Rajputana), to Aparantaka (West Punjab), to Maharatha, to Yonaloka (Bactria and the Greek kingdoms), to Himavanta (Central Himalayas), to Subarnabhumi (probably Burma and the Malaya Peninsula), to Lanka (Ceylon). The edicts of Asoka inform us that his orders were carried out in Chola (Tanjore), Pandya (Madura and Tinnevelly) Satiyapura, Kerala (i.e., the Tamil kingdoms on the extreme south) and to the five Greek kings, viz., Antiochus Theos of Syria, Ptolemy Philadelphos of Egypt, Magas of Cyrene, Antigonus Gonatas of Macedon and Alexander of Epirus he sent his missions. These missions were not political; nor did it mean proselytising. These were philanthropic missions. They took medicinal herbs and planted them and did other beneficial things and acted up to the standard set

by Asoka and led pious lives. No wonder that the foreigners were highly impressed.

The long rule of forty years by Asoka is unique in history. Buddhism had been confined to a small sect in India; he made it a world religion. If today, one-fifth of mankind professes and practises some noble rules of life preached by Buddha, the credit must go to Asoka. Asoka's name is honoured from Volga to Japan, and from Siberia to Ceylon and if a man's fame can be measured by the number of hearts that revere his memory, by the number of lips who have mentioned and still mention him with honour, Asoka is more famous than Charlemagne or Caesar. So energetic a ruler over so vast and well-established an empire, applying with sustained vigour and unflinching devotion all the resources at his command for the propagation of piety and righteousness is without a parallel in history. No ruler on earth, Christian or non-Christian has ever attempted to apply to the government of a great empire the principles of the Sermon on the Mount. Like Jesus Christ, two hundred and fifty years after, he announced that "although a man does him injury, His Majesty holds that it must be patiently borne, as far as it possibly can be borne." Asoka alone fulfilled Plato's ideal of the State in which "Kings are philosophers and philosophers kings."

Did the missionaries of Asoka effect anything permanent in Syria and Egypt? The exchange of diplomatic relation between India and these Hellenistic countries continued for a few generations. No definite information as to what the Buddhist missionaries did is known but there is circumstantial evidence that the teachings of Buddha influenced the ideas and practices of the people there, and this is particularly noticeable in some peculiar

sects. One such sect is the Essenes in Palestine and another is the Therapeuts in Egypt. Pliny in his *Natural History* in the 1st century A. D. describes the Essenes thus: "They are an Eremite clan, one marvellous beyond all others in the whole world, without any women, with sexual intercourse entirely given up, without money; and the associates of the palm trees. Daily is the throng of those who crowd about them, new men resorting to them in numbers, driven through weariness of existence and the surges of ill-fortune in the manner of life. Thus it is that through thousands of ages, incredible to relate their society in which no one is born, lives on perennial..... They were strongly against animal sacrifice, anointing by oil which they considered unclean but they practised fire worship."

Clearly they are a Semitic sect with oriental ideas and practices. Some think that the influence of Pythagoras on this sect is indicated but we know that Pythagoras himself was oriental in his ideas. So there is not the least doubt that the Essenes were influenced directly or through Pythagoras by oriental ideas. It is further believed that John the Baptist belonged to one such sect and that Jesus Christ's baptism was nothing but initiation.

The religion of Jesus Christ is different from the religion of Buddha. In doctrinal matters Christ accepted the national monotheistic belief of the Jews and Buddha accepted the Hindu belief in the Karma and the transmigration of the soul. Jesus is God-fearing while Buddha is agnostic, yet the teachings of both indicate a similarity which cannot be accidental. The legends regarding the birth and childhood of both are similar. The star indicated and the Wise men of the East bowed down before the

Saviour. So came Asita who prophesied that the new-born baby would be the Buddha. The moral precepts of both are strikingly similar. To do good to those who smite you, to love those who hate you, to relinquish the world for righteousness—these are the cardinal principles of both Buddhism and Christianity. In a society where the Mosaic law of "an eye for an eye, a tooth for a tooth" obtained, the Christian principle of love even for the enemy reminds pointedly of Buddha's sermon "Not by hatred is hatred appeased; by love is hatred appeased" and Asoka's advice "not to fight but to bear patiently even when provoked." Both Buddha and Christ had twelve disciples, the Trinity, the miracles. Both explained the essence of their new religion through parables. In Hebrew literature this is unique. The sage of Kapilavastu asked his disciples "Depart each man on a different direction; no two on the same road but each preach Dharma to all men without exception." And the Preacher of Bethlehem spoke: "Go rather to the lost sheep of the House of Israel. And as ye go, preach saying that the Kingdom of Heaven is at hand."

While early Christianity is in doctrinal matters Semitic, the moral precepts of Christ are essentially oriental; the Roman Catholic Church in its organisation, rites and ceremonies in the earliest stages indicates some Buddhistic influence. The Buddhist Order of monks and nuns was the earliest of its kind in the world. Curiously enough, the Buddhist monastic organisation did in India one thousand years before the same thing that was done by the Christians in Europe. Thus imposing monasteries of wood as well as of stone and cut inside rocks, were made, rules and judicial proceedings were preserved, copied and commented upon, and the system of confession, discipline and

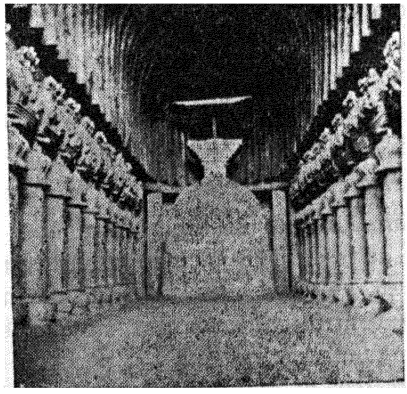
penance were developed in India a thousand years before these were developed with a remarkable similarity in Europe.

There is a tradition that St. Thomas came to the Court of Gandopharnes, king of Taxila and converted the king to Christianity. He next proceeded towards Malabar where he preached the new religion and got many converts. Further, St. Thomas is believed to have gone to the eastern coast of India and ultimately was martyred near Madras. Since then Christianity flourished in these areas long before Vasco-da-Gama came to India. Even today the Christians in these areas practise the Syrian rites and ceremonies. It is very difficult to controvert the proposition that the Christians of Syria and Alexandria, at a time when the Christian Church organisation was being formed were familiar with the Buddhist Church organisation in India and the conclusion that the Buddhist Church must have influenced the Christian Church is irresistible. The Neo-Platonists of Alexandria were familiar with a work on Indian *Yoga* written by a Babylonian Gnostic named Bardesanes who obtained his material from an Indian mission to Syria in A. D. 28. In that book descriptions of cave temples and monastic life with its bell-ringing as a call to prayer and food are surprisingly accurate. Monks' vow of chastity, renunciation and non-violence are mentioned there; Clement of Alexandria, an early Church Father of Greek birth had a tutor who came to India as missionary. Clement's lectures were attended by Indian students and Clement's knowledge of Hindu religion was fairly accurate. According to him the stupa worshipped by the Buddhists is like pyramid under which people believe the bones of a divinity lie buried. He understood the distinction between the Hindus and the Buddhists and

writes, "Among the Indians are those philosophers also who follow the precepts of *Boutta* whom they honour as a God on account of his extraordinary sanctity." St. Jerome who preceded St. Anthony who left the solitude of the Egyptian desert and founded the first Order of Christian Monks knew the story of the miraculous birth of Buddha.

The Roman Catholic cathedrals and monasteries from architectural standpoint bear a strikingly close resemblance with the early Buddhist *chaityas* and *viharas*. Christian missionaries who first went to Tibet and China were struck by the similarity between the Roman Catholic Church and the Buddhist Monasteries and their rites and performances. Now we know that these institutions developed earlier in India and went from India to Tibet and China. The crozier, the mitre, the dalmatic, the cope, or pluvial, choir, psalmody, exorcism, the censer swinging on five chairs and contrived to be opened or shut at will, benediction, the chaplet, sacerdotal, celibacy, lanten retirement from the world, worship of saints, fasts, processions, litanies, holy water, confession, tonsure, relic worship, the use of flowers, lights and images before shrines and altar, aureole or nimbus, penace, the pope, cardinals, bishops, abbots etc.,—all of these can be ultimately traced to the Buddhist Church. Regarding architecture we may quote Fergusson who describes the temple of Karli (78 B.C.) thus: "The building resembles to a great extent, an early Christian Church in its arrangement consisting of a nave and side aisles, terminating in an apse or semidome, round which the aisle is carried. . . . As a scale of comparison it may be mentioned that its arrangements and dimensions are very similar to those of the choir of Norwich Cathedral and of the Abbaye aux Hommes at Caen, omitting the outer side in the latter building. Immediately

under the semidome of the apse and nearly where the altar stands in Christian Churches, is placed the Dagopa." There is no doubt that all other Buddhist monasteries in India and afterwards those of Tibet and China followed mainly this Karli temple architecturally, admitting only minor alterations to suit local condition and practice. Intercourse between India and the Hellenistic kingdoms for the few centuries before, as well as after Christ, was regular and systematic, and hence the conclusion is irresistible that these institutions made their way westwards. Researches, it is true, have not yet proved exactly when, how and through what channel the ideas and institutions penetrated and it may be held that after all the similarity is accidental. "If all this be chance", as Rhys Davids observes, "it is a most stupendous miracle of coincidence: it is in fact ten thousand miracles."



KARLI TEMPLE

This rock-cut cave temple built, according to Fergusson in 78 B.C. resembles a Roman Catholic Church.

CHAPTER XI

THE SECOND CONTACT WITH THE WEST

The North West—Bactria, Diodotus and Antiochus of Syria. Eukratides—Demetrius—Menander—Antialkidas of Taxila—his ambassador erects the Garuda pillar at Besnagar—its significance. The Parthians. Social and political effects—contact with Greek culture. The successors of Asoka—political condition—the Sungas under Pushyamitra —the Kanvas.

Kadphises I and Kadphises II. Kaniska, the greatest ruler of the Kushana dynasty. The Mahayana and the Hinayana schools of Buddhism—their final rupture. Idols of gods and goddesses. Contact with China and Europe—trade with Rome. Periplus of the Erythraean sea.

Unfortunately the Empire of Piety built by Asoka did not survive long. His successors were weak and incapable. The empire soon fell to pieces and the outlying provinces became independent. The dynasty at last came to an end in 185 B. C. when Pushyamitra, the commander-in-chief slew his master, usurped the throne of Magadha and founded a new dynasty called the Sunga dynasty.

For the breaking up of the empire and the anarchy that followed, it is difficult to hold Asoka responsible. So long as he lived, he ruled vigorously and did not relax the administrative control. If after him, no competent successor came, the fault was not his. It was the fault of the monarchical system of government. Seldom do we find a competent and vigorous monarch succeeded by an equally competent and vigorous ruler. So, had Asoka followed his predecessors and conquered territory after territory the

empire would have met the same fate for want of a good succession of able rulers. Unfortunately India had not developed a tradition of democratic or aristocratic system of government which alone is remarkable in history for sustained mental vigour and efficiency.

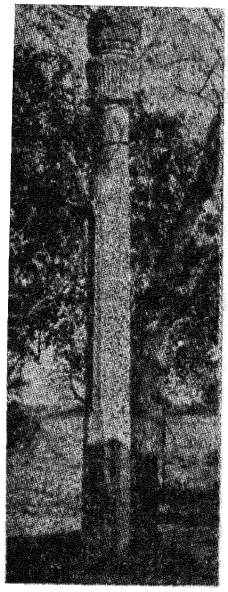
The Hindukush mountains were the boundary between the Magadha empire of India and the Greek empire of Syria under the Seleucidian dynasty. So long as the Mauryas and the Seleucidians were strong, there was complete peace and friendship between them, and the bordering kingdoms of Bactria, Parthia, Sakastan, Gandhara, Punjab etc., enjoyed peace. But after Asoka, the Maurya empire became weak and these Indian provinces virtually became independent. The Greek kingdom of Bactria, north of the Hindukush was subordinate to the Greek empire of Syria, but about 250 B. C. one Diodotus, king of Bactria revolted and became independent. He was succeeded by his son Diodotus II who, again, was succeeded by his son Euthydemus who forced Antiochus the Great of Syria to recognise formally the independence of Bactria. Antiochus gave his daughter in marriage to Demetrius, son of Euthydemus. This Demetrius became famous in western literature as the king of India. Antiochus next proceeded towards India, defeated Subhagasena, the king of the Kabul valley and received some money and elephants but nothing further happened. The weakness of the Indian provinces after the decline of the Mauryas was clearly exposed and Demetrius, the illustrious Bactrian king fell upon the Kabul valley from Bactria and founded a new Greco-Indian dynasty, but in the meantime, his old kingdom of Bactria, he lost where Eukratides headed a revolt and made himself master of Bactria (175 B.C.). But Eukratides was soon murdered. The Bactrian kingdom

fell to pieces and the whole area was parcelled out among a large number of Indo-Greek kings related either to Demetrius or Eukratides.

One such king who became prominent was Menander, immortalised in the Buddhist philosophical treatise *Milindapanha* (Question of Milinda) who ruled in Kabul from 160 B.C. to 140 B.C. His capital was at *Sakala*, modern Sialkot. He annexed Kathiawar and Mathura, came up to Saketa in U. P. and threatened Pataliputra. He was, however, repulsed by Pushyamitra, the founder of the Sunga dynasty of Magadha. Though of Greek origin, he was a Buddhist.

Another Greek king named Antialkidas ruled at Taxila and he sent an ambassador to the ruler of Besnagar. This ambassador became a Vaishnava and erected a monolithic column at Besnagar, dedicating it to Vasudeva, another name of Krishna with the figure of Garuda at the top and in the inscription, says that he was a Greek, Heliodorus by name but became a follower of Vasudeva. The few centuries that followed the fall of the Mauryas and the Seleucidians, witnessed the rise of these half Greek and half Indian kingdoms in the North West and an intermingling of the Greeks and the Indians. In Bactria Greek rulers struck coins purely Greek in character with Greek standard of weight. In the North West of India these kings though of Greek origin, struck coins which were bilingual so as to suit both the Greeks and the Indians, with Greek legend on the obverse and an Indian translation in Indian script (Brahmi and Kharosthi) with Persian standard of weight as these were prevalent in India for a long time. The ancient scripts of India have been deciphered and some lost chapters of Indian history have been reconstructed from these coins. For the first time, the

Greeks and the Indians lived together side by side and direct exchange of ideas took place. India got direct contact with Greece. Those Greeks who physically lived in contact with the Indians became Buddhists or Hindus but they must have influenced Hindu life considerably, particularly in art, literature and the sciences. Alexander's invasion exposed India to the West. Now India's contact with the West became direct, deep and far-reaching.



GARUDA PILLAR OF HELIODORUS

This monolithic pillar with the figure of Garuda as capital was erected at Besnagar in Bhopal in Central India by one Greek, Heliodorus by name, who, as he says in the inscription on the pillar, came as the ambassador of the Greek king Antialkidas of Taxila to the ruler of Besnagar. He became a Hindu and dedicated the pillar to Vasudeva, another name of Krishna. This shows how the Greeks of Bactria adopted Hinduism.

Not only the Greeks, another power soon became formidable. They were the Parthians. They came from the south east of the Caspian sea. Simultaneously, with the revolt of Bactria against the Seleucidian dynasty, there was a national rising against Syria by the Parthians. Mithradates I was the most famous of those Parthian kings and they gradually penetrated into India. Their hold over western India was, however, not so strong. Semi-independent kings bearing nominal allegiance to Parthia ruled over western India including Gujarat and Malwa. Later, Saka kings and chieftains of western India were subordinate to the Kushanas but they bore the old Persian title of *Satrap*. Of these Western Satraps, one house at Ujjain became very prominent and Rudradaman of this house made himself celebrated (128 A. D.). He rebuilt the *Sudarshana* lake in Kathiawar for purposes of irrigation and incised an inscription on exactly the same piece of stone on which Asoka in 220 B. C. incised his famous rock-edict.

In the meantime, another tribe called the Sakas or the Scythians were pushing towards India. They were a nomadic tribe coming from the north of the river Jaxartes, in eastern Turkestan and pushed gradually through Bactria, Kabul and Gandhar into India. They themselves were pushed by one Mongolian race called Yueh-Chi in China, the great bee-hive of human beings. Some of the Saka tribes went and settled in the area now called Seistan (Sk. *Sakasthan*); others pushed towards India. By the close of the 1st century A. D., many Sakas were well-established in Taxila in the Punjab, Mathura on the Jumna, Ujjain in Central India and in Gujarat and Kathiawar.

Thus different tribes and races, in waves after waves, in the course of some four centuries came and settled in India. They were virile and strong but culturally inferior and soon got merged with the Indians and in the course of centuries got completely Indianised. Many clans and tribes in Rajputana and Gujarat originally belonged to these races and it is really a wonder how they became gradually orthodox Hindus. Even in those days, it was inconceivable that Non-Indians, not born of some Hindu caste could adopt Hinduism which already developed strong exclusiveness and caste prejudices. It is difficult to believe at one particular time how one not born in one caste could be accepted into that caste but it was not difficult for large groups of men and women in the course of centuries to adopt Hindu religion and rites, and to become members of one caste *en masse*. Instances of how whole tribes were absorbed into the Aryan fold (*Vratyas-toma* in the *Tandya Brahmana*) we have already discussed. We can cite an instance from another area. Manipur is a small state on the border between India and Burma. Until recently it was completely isolated from the rest of India. Racially and linguistically the Manipuris are purely Mongolians. Some legendary *Rishi* went to Manipur and introduced Hinduism and in course of time, Hindu gods and goddesses, but mainly Krishna, came to be worshipped there. Hindu rites and customs were gradually established. Brahmins obviously did not migrate from India but the priestly classes living there started doing priestly duties and became Brahmins themselves. But the Manipuris are generally a healthy and robust race, fond of war-like pursuits. They soon adopted the status and rules governing the Kshatriyas. Thus the Brahmins and Kshatriyas of Manipur, though not born of Brahmin and Kshatriya parents, are as good Brahmins and Kshatriyas as any

other in the rest of India. It is difficult to conceive at any particular time how a man could be born of the ape but if we know all the connecting links and take a fairly long period of time, it is not difficult to understand how man has evolved out of the ape. Many Rajput tribes in this way became staunch Kshatriyas and hence orthodox and devoted Hindus.

Before the Mauryas, Greece and India met one another through Persia. The contact was very remote and indirect. Certain ideas moved from one to the other. After the downfall of the Mauryas in the course of some four hundred years, Greece and India were more than close neighbours. They lived and ruled in the same areas. The contact was direct. Both, however, were highly civilised and cultured. The Greeks who lived in India must have been small in number and became Indianised. They lost their physical identity but the Greek contribution in art, painting, sculpture and sciences was considerable. Though not Hellenised, as the Romans were by the Greeks, the Indian culture and civilisation were much enriched by her contact with Greece.

Asoka died in or about 232 B.C. Not much is known of his sons and successors. His son Kunala died during his life time. He was succeeded by his grandson. The successors of Asoka were weak and incapable of controlling the vast empire left by their illustrious predecessors. The distant provinces virtually became independent of Pataliputra which lost the former glory and pre-eminence. The royal officers grew corrupt and oppressive, and the central authority lost its vigour and initiative, and disruption started. In spite of his faith in non-violence and his propagation of the Law of Piety and peaceful and non-aggressive policy, the laws were strictly enforced and the

strength and discipline of the army and the police were unimpaired. But now all these were gone. The pacific policy initiated by Asoka but followed by his weak and inefficient successors destroyed the martial spirit of the people. The soldiers whose forefathers expelled the Greek garrisons of Alexander the Great, and hurled back the battalions of Seleucus got their martial spirit quenched by the spirit of non-violence. The result was disastrous. For, so large an empire with so many heterogeneous elements could not be maintained without a strong army, an efficient police force and strict laws. For some three hundred years after Asoka and before the rise of the Kushana dynasty the flood gate of foreign invasion through the North West Frontier lay open. Greeks, Scythians, Huns and other tribes rushed in, carved out independent kingdoms and were a perennial source of danger. One Greek prince invaded northern India and came upto Pataliputra. Such was the deplorable condition of the Magadha power. Besides, a strong reaction in favour of Brahmanical Hinduism started. Masses of people continued to be Hindus and liked to worship Hindu gods and goddesses and performed Hindu rites. The practice of non-violence forced on them, caused discontent and the Brahmin priests, ministers and persons of position and influence who resented the court patronisation of Buddhism led the revolt and persecuted the Buddhists. At last one Pushyamitra Sunga, the commander-in-chief of the Maurya emperor assassinated Brihadratha, the last Maurya king in 185 B. C. and founded a new dynasty at Pataliputra, called the Sunga dynasty. Pushyamitra was a Brahmin and he restored to some extent the glory of Pataliputra and performed the Ashvamedha sacrifice which proves that Brahmanical rites and ceremonies including killing of animals were practised, and that all neighbouring kings

accepted his overlordship. During this period, Menander, the Greek king of the Punjab conquered northern India, came upto Saketa and invaded Pataliputra. This shows how weak the Pataliputra government was during this time. Menander, however, was defeated by the son of Pushyamitra. The Sunga dynasty after ruling for 112 years came to an end in 73 B. C. when the last king of this dynasty was slain by his minister Vasudeva, a Brahmin who founded a new dynasty, called the Kanva dynasty. This new dynasty had some four rulers in all and collectively lasted for some 45 years when it was replaced by the Andhras. It shows that no dynasty was strong enough, and usually court intrigue and secret assassination replaced one dynasty by another. This period was also a period of disturbance and lawlessness. The Magadha empire virtually became the kingdom of Magadha and it had no control over the distant areas of the North West, the Deccan, Western India and Gujarat. In 28 B. C. the Andhras became powerful and established their overlordship. They were a Telugu-speaking Dravidian people. Already they were ruling in the Deccan in the area between the Godavari and the Krishna. During Asoka's time they were under the Magadha empire only nominally and as soon as the Magadha empire became weak, they asserted their independence. The ablest ruler of this dynasty was Gautamiputra Yajnasri. The Andhra empire extended from the Bay of Bengal to the Arabian sea. The Andhras conquered Magadha in the north, and Malwa and Gujarat in western India. They became a northern power. In the west at that time the Sakas or the Scythians founded kingdoms and they were known as the Western Satraps. The Andhras came in conflict with them, particularly with Rudradaman who was possibly the greatest among the Saka Satraps of western India. After ruling for some four

hundred years by the 3rd century A. D. the Andhra power declined. Gautamiputra Yajnasri who reigned from about 166 to 196 A. D. was the last ruler who controlled both the eastern and the western provinces, and he was succeeded by three shadowy kings, and then certain new smaller kingdoms rose till at last the Andhras were confined in the Godavari region.

The dynasties that succeeded the Mauryas were orthodox Hindus. However, Buddhism and Jainism were undermining the foundation of the orthodox Hindu society. The Sakas and other foreigners who came and settled, were upsetting the caste system and other orthodox rules of Hindu society. The Andhras in particular were the protectors of the Hindus and championed Hindu rites and customs. Caste rules were made more stringent. It is to be noted, however, that Buddhism never ousted Hinduism in India and that the caste system never disappeared. At times the rules of the caste system became rigid and at times they became flexible. On the whole the foreign elements who were not familiar with the caste system, gradually got absorbed, and formed some caste so that they did not completely lose their separateness from the rest of the society. And because they retained their position as separate castes, they could form part of the Hindu population without serious conflict. These foreign elements unlike the modern Muslims or the Christians, did not belong to any organised religious group and hence absorption could be easier.

About 166 B. C. from China, the great bee-hive or human beings, one nomadic tribe called the Yueh-Chi was driven westwards by another tribe and these Yueh-Chis came and occupied the Oxus valley where they defeated the Sakas who gradually moved towards India not through

the Frontier Province because the Parthian and the Bactrian kingdoms stood on their way, but from Seistan through Baluchistan they gradually migrated towards India and set up principalities in Sind, Rajputana, Gujarat and Western India. In the meantime one sub-tribe of the Yueh-Chis, called the Kushanas defeated the Greeks of Bactria and began to rule over Bactria and Sogdiana. For sometime, Kadphises I of this dynasty ruled Bactria along with Harmaios, the last Greek king of Bactria. He conquered Parthia, Gandhara and Afghanistan. His son and successor, Kadphises II conquered the Punjab and some portion of U. P., Kadphises II was succeeded by Kaniska, the greatest ruler of the Kushana dynasty. He founded the Saka era that commenced on 78 A. D. His capital was *Purushapura*—modern Peshawar. He conquered Kashmir where he founded a new city called Kaniskapur. The Kushanas were formerly defeated by a Chinese general and they had to pay a tribute to the Chinese emperor. Kaniska fought against the Chinese emperor, and was once defeated but next time he won and brought Kashgar, Khotan and Yarkhand within his empire. He kept Chinese hostages in his kingdom in Kashmir. His empire included Afghanistan, Bactria, Khotan, Yarkhand outside India and the Punjab, Kashmir, Sind and the United Provinces upto Benares. He was a warrior all his life and conquered kingdom after kingdom but like Asoka he became a devout Buddhist and a great patron of art and letters. He built a huge tower 400 ft. high at Peshawar which excited the admiration of all foreigners at that time. The city of Mathura was adorned with many fine buildings and artistic sculptures during the reign of Kaniska and his successors. Near Mathura several statues have been found including a remarkable portrait statue of Kaniska himself. During

this period the Gandhara school of art which means Greek art on Buddhistic themes was developed.

He had at his court the famous Buddhist teachers, Parsva and Vasumitra, the great Buddhist poet and philosopher Asvaghosa, the celebrated philosopher Nagarjuna and the immortal authority on Indian medicine, Charaka.

The final rupture between the Hinayana and the Mahayana, the two schools of Buddhism took place during this time. The teachings of Buddha austere but simple, were based on the dialogues recorded by his direct disciples. In course of time myths and legends began to grow. As Buddhism spread in different regions, the prevailing religious ideas of those places got mixed up with the teachings of Buddha and Buddhism as practised by them took on a new shape. Most people failed to appreciate the abstract concept of *Nirvana*. They were familiar with personal gods and as we have seen in connection with Bhagavatism as the cult of *bhakti*, people sought to establish some relation of love and devotion with their god whom they considered to be their saviour. Buddha originally a teacher now came to be regarded as God. Originally in art and sculpture he was represented by some symbol as the feet or umbrella or the wheel. Now his figure came to be placed on the altar and worshipped. This is partly a Hindu and partly a Greek influence. Before this time idol worship, the trinity, the temple etc., were not so much in vogue amongst the Hindus though the cult of *bhakti* had to some extent replaced the Aryan prayer and sacrifice. Greek artists who were fairly large in the North West began to produce statues on themes supplied by Buddhist legends according to which Gautama Buddha was only one of the Incarnations of God. Offering of incense on the altar which contained a picture of the Roman emperor

conceived to be a god was essentially of Egyptian and Persian origin and was widely practised in the Roman empire. Such a practice was not known in ancient India. Greek artists supplied beautiful statues of gods and goddesses, and the worship of the idol of Buddha on the altar was an easy step. Buddha is conceived to be born several times before, and in his previous incarnations he was known as Bodhisattvas. We are also told in these legends that he would be born again and the future incarnations are also worshipped. Naturally the orthodox followers of Buddhism resented these newer developments and Kaniska summoned a great council where discussions were held for a pretty long time. Vasumitra, the famous Buddhist philosopher presided over these deliberations but practically no decision was reached. Rules of Buddhism as actually practised or as they should be practised were not arranged and systematised. A poetic eulogy of Buddha couched in Sanskrit was the only result. This, however, was put into writing on copper and placed under a stupa by Kaniska.

The Hinayana school continued in India and it has survived in Ceylon and Burma. In China and other northern countries Buddhism developed on newer lines. This is not altogether new. In Christianity also, in course of time, differences and divisions took place. No creed can continue in its pristine purity when it goes to a different surrounding.

Kaniska was, however, a very liberal Buddhist. The coins struck by the Kushan emperors resembled the Roman coins of the 1st century A. D. and they contained Buddhist, Greek, Zoroastrian, Mithraic gods and legends. These coins were discovered in areas as wide as Bactria, Bengal and Broach. This shows that trade within these

areas was brisk, and hence exchange of ideas and fusion of culture must have been considerable.

The Roman empire under Trajan came within a few hundred miles of the Indian empire and there is no wonder that the cosmopolitan city of Rome in her palmiest days had a strong demand for Indian goods. Communication both through land and sea was open and utilised. Caravans passed through Afghanistan in a regular and systematic manner. Peshawar was the capital of the Indian empire; peace and security so essential for trade and commerce was undisturbed. Besides, the western coasts of India contained a good number of ports through which merchandise passed. In 20 B.C. we hear of Augustus receiving an embassy from *King Pandion,* the Pandya king of Madura. The trade with the Roman empire was so very extensive and lucrative that Pliny complained that every year India drained the Roman empire of a large amount of gold in return for spices, perfumes etc.

An Egyptian Greek wrote an anonymous book, called *The Periplus of the Erythraean Sea.* It is in the nature of a guide for sailors and gives an account of the sea-route from India to Egypt through the Red Sea, the various sea-ports of India and her exports and imports. The Indian monsoon was thoroughly understood and the sailors regulated their journey according to the season. Broach, originally called *Bhrigukachchha* and later by the Greeks as Barygaza on the western coast and Tamralipti, modern Tamluk on the Bay of Bengal, were important centres. The *Milindapanha* alludes to trade with China through sea and the *Arthasastra* refers to Chinese silk which became very popular in India. Buddhism naturally spread through the North West into China and the Eastern Turkistan as Peshawar was the

capital of an empire which included Kashgar, Khotan and Yarkhand and as both the Indian and the Chinese emperors came from the same stock and some people in both the empires were essentially common. With Buddhism went Indian culture. Excavations of Sir Aurel Stein in Khotan have unearthed the ruins of cities which must have been Indian colonies two thousand years ago. The Indian script, language, coins and specimens of architecture, sculpture and painting penetrated in those areas.

CHAPTER XII

THE IMPERIAL GUPTAS

Rise of the Guptas—Chandragupta—his son Samudragupta—his military conquests—his son Chandragupta II called Vikramaditya of the Indian legend. The Sakas and the Huns. Successors of the Guptas. Political condition. Effects of Hun invasion. The disintegration after the fall of the Guptas. The rise of the house of Thaneswar under Harsha. The decline.

For some three hundred years from the break-up of the Kushana empire to the rise of the Gupta empire, the history of India is obscure. We do not know much of what happened in India during this period. All we know is that during this period there was no strong central government and the whole of India including the North West was divided into small and petty kingdoms and principalities. Towards the beginning of the 4th century A. D. in Magadha there were many small kings who ruled over their petty kingdoms and one such local king Chandragupta by name established his position. He married a princess, Maya Devi of the Lichchhavi clan, who then ruled over Pataliputra, and partly by marriage connexion and partly by military conquests, extended his kingdom upto Allahabad. He struck his own coins and established a new era called the Gupta era in A. D. 320, presumably the date of his coronation. Some ten years after he died and was succeeded by his son Samudragupta.

Samudragupta was a versatile genius. He was an efficient organiser and brilliant general, with absorbing interest in poetry and music. He fought valiantly against

his neighbours for a pretty long time, marched upto the Deccan and brought all the ruling chiefs under subjugation. As is natural the victor was satisfied by receiving submission from the vanquished and he performed the horse-sacrifice which indicates that Samudragupta established his overlordship over a vast area which included the whole of northern India with the Brahmaputra in the east, the Jumna and the Chambal in the west, the Himalayas in the north and the Narbada in the south. These areas he ruled directly. Besides, he controlled central India and Malwa and a large number of tribal republics on the frontier. The frontier kingdoms of Nepal, Assam, East Bengal, Kumaon and Garhwal paid him homage. For his military conquests he is called the Napoleon of India and like Napoleon he was a superb organiser. But he was more than that. He composed poems, took great interest in poetry, music and art and was a patron of learning. He was the greatest ruler of the Gupta dynasty.

On the pillar at Allahabad constructed by Asoka some five hundred years earlier he had his achievements inscribed in excellent classical Sanskrit and we get a lot of information from that inscription.

Samudragupta had diplomatic relations with some foreign powers. The Kushana king of Kabul, Daivaputra Sahi, a descendent of Kaniska recognised his imperial authority by sending him rich presents. King Meghavarman of Ceylon sent him an ambassador and obtained his permission to build a monastery at Bodh-Gaya for the use of Ceylonese pilgrims. Though a Hindu as can be known by his horse sacrifice, he was conspicuously tolerant towards the Buddhists. In A.D. 375, he was succeeded by his illustrious son, Chandragupta II, better known in India as Vikramaditya, the hero of innumerable stories and legends

current throughout India. Most of the ancient names are today forgotten but every household in India remembers with veneration the legendary name of Vikramaditya whose military exploits, romantic encounters and love for art and learning, are even today supposed to be unsurpassed. Any old woman of India can narrate some story of his personal valour, presence of mind, romantic adventures, heroic but human conduct. Romantic stories of how he moved incognito amongst his subjects in the country to ascertain how people lived. the innumerable dangers and difficulties to which he was exposed, the physical courage and cleverness with which he mastered the situation and the manner in which he could control even the genii, are current in every Indian household. Vikramaditya was to India what Charlemagne was to Europe and what Harun-al-Rashid was to Arabia.

He was considered a national hero particularly because of his heroic encounters with the Saka rulers of Western India. He brought within the Gupta empire Malwa, Rajputana and Saurastra, the areas that were ruled by the alien Saka princes known as Western Satraps. He ruled for 38 years during which he gave complete peace and security to the people and it is generally admitted that never were the Indian people so well-governed as during this period. As is natural the strong and vigorous rule of the Guptas gave an efficient administration of law and justice, and the people could devote themselves to the higher pursuits of civilization and at no period of her long history did India reach a higher level of culture. Her religion, language, literature, art, architecture, sculpture, painting, music, sciences, industry and commerce—all received their due share. Such an all-sided development is classic and can be compared with the Periclean age of

Athens, the Augustan period of Rome and the Elizabethan period of England. Kalidasa, the greatest of all Indian poets is believed to have flourished during this time and according to tradition, nine men of genius in different spheres adorned the court of Vikramaditya. They were (1) Kalidasa, the poet (2) Varahamihira, the astrologer and astronomer, (3) Vararuchi, the Grammarian, (4) Amarasingha, the lexicographer, (5) Dhanvantari, the physician, (6) Kshapanaka, the astrologer, (7) Shanku, the architect, (8) Vetalabhatta, the magician, (9) Ghatakarpara.

Of course, historically the tradition of the nine persons living at the same time at the court presided over by Vikramaditya has no basis.

During the reign of Vikramaditya, the celebrated Chinese pilgrim, Fa-Hien, the earliest of the group of Chinese travellers, visited India, and from his accounts we get a lot of information on the condition of the people during this time. Chandragupta II removed his capital from Pataliputra to Ayodhya as it was situated in a central position from where the outlying empire could be better administered He was succeeded by his son, Kumaragupta who ruled for 40 years. (A. D. 413—A.D. 453.) He not only inherited the vast possessions of his father but may have also added more and the glory of the Gupta empire reached its climax when Kumaragupta performed the horse-sacrifice. Towards the end of his reign troubles began. The North-West Frontier was practically open. There was no strong government with a strong army in that area and as it happened so many times, foreign races began to penetrate into India. The Huns, a fierce nomadic tribe in central Asia started coming into northern India and it soon became a menace to the peace and security of the

country. At a time the Huns threatened the Gupta empire but eventually the crown prince Skandagupta inflicted a crushing defeat on the Huns and the empire was at least for some time saved. In A. D. 455 Skandagupta succeeded to the throne and ruled for some 11 years during which time the Hun menace was the main source of trouble to the king. The Guptas had little control over the Kabul and Afghanistan area. Had they organised that province as a military base against the intruders, the menace could have been successfully dealt with. Instead of that, the Gupta rulers waited for them and fought against them in the plains of India. The Huns came in waves after waves, sometimes well-organised under able leaders, sometimes not, and the resources of the Gupta empire were practically exhausted. Skandagupta held his position for some time and before his death the strain involved in constantly fighting against the Huns depleted the treasury. The downfall of the empire was almost visible when Skandagupta, the last of the great Gupta emperors died.

Puru Gupta, the half brother of Skanda Gupta was the next ruler. By this time the power of the Gupta empire was declining. Vassal kingdoms under the empire started revolting and bore only nominal allegiance to the emperor. Members of the royal family and governors of provinces set up new kingdoms where they became virtually independent. Puru Gupta directly ruled over Magadha and the adjoining areas and his control over the different parts of the empire was gone. He was succeeded by his son Narasingha Baladitya. By this time Malwa became practically an independent kingdom ruled by another dynasty and a confederacy of some rulers including Narasingha Baladitya of Magadha and Yashodharman of Malwa inflicted a crushing defeat on the Hun leader Mihiragula. After Narasingha

Baladitya, came Kumara Gupta II whose reign was short and uneventful. One Budha Gupta, a governor of Malwa under Skanda Gupta revolted and overthrew Kumara Gupta II. Budha Gupta's stronghold was Malwa. He ruled upto 494 and after him the Gupta dynasty came to an end. The breakup of the empire was complete and the later Guptas in different places, in different degrees exercised some power but the anarchy and confusion that followed the downfall of the Gupta empire, continued till the rise of the house of Thaneshwar under Harshavardhana in A. D. 606.

The Gupta dynasty can boast of a long line of very able and brilliant rulers each with a fairly long period of rule. But here as elsewhere, things depended on the accident of birth. If the successor of an able ruler was also equally capable, things went right but if accidentally he happened to be weak and inefficient everything went wrong. There was no scope for selecting a tried leader of proved competence with the possibility of replacing him if he turned out to be inefficient and corrupt. The modern democratic system offers such a choice but unfortunately this was not the practice in ancient India. After generations of peace and prosperity the strength and vitality of the ruler as well as the ruled gave way and when new troubles arose the Government had lost the initiative and the drive, and could not cope with the new situation. Such was the case with the Guptas. The North West Frontier was not properly guarded and the inroad of the White Huns finally brought about the disruption of the empire. This was also the case in Europe where the decaying Roman empire could not stand against the Huns.

The Huns were a fierce nomadic tribe of central Asia. One division of them moved towards Europe and carried devastation there. The Roman empire was weak and deca-

dent; Christianity sapped the martial qualities of the people. Eventually Rome was overrun by the barbarians. Another branch came and settled in the Oxus valley and from that base swooped upon the fertile plains of northern India. Less civilized, less polished and humane, they perpetrated cruelty on the people of the plains of India which had enjoyed the fruits of peace and civilization for a pretty long time. The Huns carved out small kingdoms in the Kabul valley, Rajputana, Central and Western India. One Toramana about A. D. 500 established himself at Malwa and made his influence felt over northern, central and western India. His son Mihiragula had his capital at Sialkot. He was a savage tyrant and his fiendish cruelties provoked a national rising against the Huns. A loose confederacy of local Hindu rulers led by Baladitya of Pataliputra and Yashodharman of Malwa inflicted on him a crushing defeat. Mihiragula was taken a prisoner but afterwards set at liberty. He went to Kashmir where he continued his intrigues without any scruple till he died in A. D. 540.

After his death the Hun power was subdued gradually by the local rulers. Most of the Huns were in course of time Hinduised. They accepted Hindu religion, manners and customs, and from them have descended many of the ruling families of Gujarat and Rajputana. Those who were rulers and fighters became Kshatriyas and the rest, lower in rank, became sturdy cultivators. They were absorbed in Hindu society but were not completely merged with the Hindu masses. They lived as separate castes within the Hindu fold. Centuries after they became fanatic Hindus and fought most valiantly against the Moslems.

During this period Hindu society became more exclusive. Caste rules were made more rigid and stringent.

High caste orthodox Hindus were forbidden to marry or dine with the foreigners. Not only that, one would get defiled simply by touch and sometimes even by the sight of the *Mlechchhas*. The study of the Vedas and other sacred knowledge was strictly forbidden to them. Curiously, we get both the features of Hindu society here. It is exclusive, narrow, illiberal, and by raising a big wall, maintains its separate identity and saves itself from getting merged. At the same time it has brought other races and people within its fold, of course, as separate castes. In course of time, these foreign elements grew staunch defenders of Hinduism. While absorption of the new blood strengthened Hindu society, it also became a source of weakness because society became divided into so many castes and subcastes.

By the close of the 5th century A. D. the Gupta power in India declined. Some rulers who claimed their descent from the imperial Guptas and who came to be known as the Later Guptas, continued to rule in Magadha. Their influence was solely confined in the country near about Pataliputra. As it happened so often in the past, now also, with the relaxation of control by the central government, the provincial governments under different dynasties began to assert their independence. In the Gangetic valley there were the Maukharis who became very powerful and who offered the strongest resistance against the Huns. Their capital was Kanauj. In central India were the Malavas. Formerly they were under the Huns but now they became independent. Yashodharman put an end to the Hun power in India. He was, however, a single and solitary figure, neither preceded nor succeeded by any person of equal repute in the line. In Kathiawar, the Gujjaras founded a kingdom at Valabhi which became famous as a centre of learning. Kashmir, Bengal, Kamrup and the kingdoms in

the Deccan became virtually independent. Politically, the main interest of this period was the rivalry and struggle that started for overlordship. Some temporary alliances were formed but unfortunately no idea of one government on federal basis was yet understood; nor were the conditions then favourable for a federal union. Like most other countries, ancient India knew either one despot at the centre or so many petty provincial rulers independent of central control and quarrelling with one another. Under the circumstances then existing no compromise between these two extremes was understood. Socially, the main interest of this period lay in the absorption of the foreigners including the Huns in the Hindu society. But while these foreigners became Hinduised, stringent caste rules were framed and observed against contamination. Rigid caste rules and untouchability now became the main feature of the Hindu society.

THE HOUSE OF THANESWAR

Prabhakaravardhana, a scion of the Gupta family, was the real founder of this dynasty. By successful war he brought the neighbouring kingdoms under subjugation. He married his daughter Rajyasri to Grahavarman, the Maukhari ruler of Kanauj. His two strong rivals were Sasanka of Bengal in the east and the Malavas in the west. He fought against the Huns successfully and was succeeded by his eldest son Rajyavardhana. In the meantime, as soon as Prabhakaravardhana died the king of Malwa killed Grahavarman and imprisoned Rajyasri. Rajyavardhana went out and defeated the king of Malwa but Sasanka of Bengal who was an ally of Malwa entrapped him. He was murdered and his sister Rajyasri fled into the Vindhya forest. Harsha the younger brother

was then 16 years of age. He rescued his sister Rajyasri and fought against Sasanka who was held in check. He formed an alliance with the king of Kamrupa and conquered some portion of Bengal. He conquered Malwa, Rajputana and Gujarat but was defeated by the Andhra king, Pulakesin II. Though his expansion in the Deccan was checked, he brought the whole of the northern India except the Punjab under one rule. Harsha was a strong and vigorous ruler. He combined in himself some of the qualities of both Samudra-Gupta and Asoka. He was the last Hindu emperor of India and his greatest achievement was to restore peace and order after the anarchy and confusion caused by the Hun invasion. Like Asoka he was tolerant in matters of religion and devoted himself for the promotion of moral and material interests of his subjects. Like Asoka he forbade the killing of animals for food and built stupas, monasteries etc. He was personally a highly accomplished man. He was a poet and author. In his court lived the poet Bana whose *Harshacharita* is a mine of information. During his reign came Yuan Chwang who became his personal friend. Harsha maintained diplomatic relations with China. In A.D. 641 he sent a Brahmin envoy to China and from China also a mission came. In 646 one Chinese mission headed by Wang-hjuentse came but by this time Harsha was murdered and one of his ministers, Arjuna usurped the throne. Instead of being courteously received the Chinese mission was brutally attacked and Wang-hjuentse somehow escaped with life in Nepal which was then subordinate to Tibet whose ruler, again, was the son-in-law of the Chinese emperor. With forces from Nepal and Tibet, Wang-hjuentse came and captured Tirhut, defeated Arjuna and took him back to China as a prisoner. Tirhut remained subject to Tibet for sometime but the Tibetan army had no mind to occupy

India. This episode, if correct, proves how vulnerable the monarchical system of government was. Harsha had no male issue and as his death was sudden, the succession to the throne was insecure. With no able successor the empire fell to pieces. All the vassal states revolted. The Gujjaras in Rajputana and the Pratiharas in Kanauj rose in power and dominated northern India for some time. Unfortunately except dynastic marriage alliance no union was possible and no strong confederation was ever attempted. Mutual jealousies and obstinate prejudices prevented any combination. Kanauj ignominiously fell, at the end of a single day's fighting in 1019, to Mahmud of Ghazni. Thus closes a glorious period of Indian history.

ANCIENT INDIAN SCRIPT

(1) Brahmi script as in Girnar inscription (see page 89, (2) Kharaosthi script, supposed to be of Phoenician origin, was prevalent mostly in the North West, (3) Gupta script, and (4) Nagari, (see page 27).

CHAPTER XIII

THE GOLDEN AGE

The Golden Age of ancient India. The revival of Brahmanism—old Aryanism modified by new forces gives rise to modern Hinduism. No persecution. Hindu revival mainly through court patronization and the teachings of philosophers. Main features—new mythology and the Puranas, new divinities, puja in place of sacrifice, idol and temple worship, rigidity of the caste-system, influence of the Puranas on the masses—the taboo on beef, Sanskrit literature—kavyas, dramas—Kalidasa's Shakuntala—romances, Juvenile literature—Panchatantra —its migration to Europe.

The Gupta period is called the Golden Age of India. During this period India enjoyed the blessings of a strong but benevolent central government with undisturbed peace, wealth and prosperity. Never was India so well-governed as during this period. Hinduism revived and the Indian Renaissance was ushered in. Intellectual activities in so many fields—in art, science, literature, sculpture, achitecture, painting, music, etc., started with renewed vigour and reached the highest watermark of excellence never perhaps to be surpassed.

The revival of Hinduism, of course, does not mean that Hinduism had ever gone out of existence. The Gupta rulers were all Hindus and worshipped mainly Shiva. The royal patronage so long extended to Buddhism now came to be received by the Hindus. For so many years Buddhism had dominated the royal courts. It had its effects on the masses and the old ideas and institutions of

the rank and file were considerably modified. Reaction, however, started and the main Buddhist influence was now confined in the monasteries where the monks and the nuns lived and devoted themselves to spiritual and intellectual pursuits. Almost imperceptibly, without any persecution, through royal patronage and the influence of the Hindu teachers and philosophers, the old faith began to regain its lost position. But in some respects the influence of Buddhism was already so deep-rooted that it could not be suddenly dispensed with. Masses of the people accepted certain Buddhist ideas and institutions permanently and hence the revival of the old faith did not mean that the ancient Brahmanism of the Vedas was re-established. It was practically a new religion. The Vedic gods and goddesses receded to be remembered only in the innumerable myths and legends that came to be fabricated. Sages and poets according to their own imagination and fancy, in different areas and in different periods, conceived of these ancient deities and produced a large mass of mythology, and the new divinities—not the original Vedic deities, came to be worshipped. Rivers, trees, creepers, snakes, bulls, etc., used to cast some weird influence on the pre-Aryan masses of India. Spirits were associated with them. Gradually these spirits started taking shape in the mind of the people. Myths and legends developed. Mahayana Buddhism encouraged them and the Gandhara artists gave different shapes to Buddhas and Bodhisattvas and they came to be worshipped in temples. By this time the fanaticism with which the Vedic priests prayed and offered sacrifices to their gods and goddesses cooled down and the pre-Aryan divinities began to exert themselves. The Vedic elemental gods and goddesses had now little appeal to the masses who could, again, seldom appreciate the *Atman* or the *Brahman* of the Upanishads. Images of

gods and goddesses as conceived in mythology came to be produced in concrete shape by the artists of Gandhara and Mathura and the idol worship became more popular. *Yajnas* were replaced by *pujas*.

The authority of the Vedas was, however, never questioned. The Vedas continued to be the last word on Hindu religion. The Brahmins in secluded hermitages and holy places read and chanted them, and possibly practised some of the rites and ceremonies. These continued for some 1000 years till northern India was overrun by the Moslems.

The Gupta rulers were great builders and they built fine temples where the image of some god or goddess was installed. Professional priests were maintained to offer puja. Devotees used to come and give money as well as things for the worship of the idol. Some temples in some places, in course of time, earned an all-India reputation, and pilgrims all over India used to visit those shrines and offered worship at least once in their life-time. The priest-owners of these shrines began to receive wealth as well as devotion from the lay public. Cash money, gold and silver ornaments, landed estates etc., were given to these shrines and they became rich institutions noted for fabulous wealth. Most of these shrines in northern India, centuries after, were looted by the Moslems. The idol was broken and some times the shrine itself was converted into mosque. The shrine in the Deccan escaped destruction and continued to be prosperous. To many of these temples dancing girls, called *Devadasis* were dedicated. These girls were nominally for the service of the idol, practically used by the priests and the system gave rise to immoral practices.

Lay people followed the example of their rulers. They also started building temples in their villages and installing

idols in them. Priestly duties became a specialised trade and the Brahmins framed rigid and strict rules for maintaining their caste, purity and privilege. In the meantime foreign races like the Sakas and the Huns were getting absorbed in the Hindu society but they formed separate castes and the orthodox Brahmins framed special and stringent rules against caste contamination. Besides the more or less advanced races like the Sakas and the Huns, there were people low and backward in society. They were also included in the Hindu fold. Buddhism contributed a lot for their uplift but now the Brahmin leaders of the society apprehended that close and intimate association of these low class people on terms of equality might degrade the high class Brahmins and stringent rules were framed against them. They became the untouchables. The book of the Hindu law-giver Manu originally belonging to a few centuries earlier, now finally re-cast, became the standard Dharmashastra.

Most of the *Puranas* were written during this period. The word literally means *old tradition.* They contain accounts of how the world was created and how religion and religious rites developed. They also contain an account of many historical events and genealogies of kings. Seldom, however, is a Purana sober history. It mainly contains legends meant for imparting moral and religious education to the masses. Glimpses of past history as preserved in old traditions can, however, be obtained from the Puranas.

The Puranas were meant mostly for the masses and in this sense they were quite successful. Literacy in those days was confined to a few people in society. This is true in all countries of the world but surprisingly of all the illiterate nations of the world the illiterate Hindu masses were the most enlightened and cultured. The Puranas

contained religious and philosophical teachings clothed in allegories. Most legendary stories had some deep moral and religious lesson and as the Puranas were widely read and recited by the learned Brahmins before gatherings of the country folk on festive occasions, the religious ideas penetrated deeply amongst the masses. Most of the sublime ideas of Hindu philosophy, otherwise extremely abstruse and intricate, are known and understood by the ordinary masses. Sir H. Risley says,

"These ideas are not the monopoly of the learned; they are shared in a great measure by the man in the street. If you talk to a fairly intelligent Hindu peasant about *paramatma, karma, maya, mukti* and so forth, you will find as soon as he has got over his surprise at your interest in such matters that the terms are familiar to him and that he has formed a rough working theory of their bearing on his own future."

The difficulty with the Puranas is that all are not equally old and composed genuinely by the authors bearing their name. At a later period poets and sages composed new Puranas but in order to attract greater attention and wider appreciation authorship was attributed to some very ancient legendary *rishi*. Not only that, in order to convince the readers that the *rishi* who composed the Purana was a seer who knew the past as well as the future, past events were recorded in the future tense. All myths and legends were so mixed up with serious subjects in such a hopeless way, that ordinarily many of them excite ridicule. For instance, in one Purana it is stated that the earth rests on the head of a serpant, that the earth is triangular, that there are seas full of milk, honey etc. Thus a modern reader feels disgusted and is unable to gather knowledge or pleasure. This is also true of many legends of Greece

and Rome. If one reads them to acquire scientific knowledge he will be disappointed. But if he reads them as legends he will certainly enjoy them. This equally applies to the Indian Puranas.

We have already seen that the present day Hinduism does not consist in a belief in any particular creed or doctrine. Nor is there any particular ceremony or practice the observance or non-observance of which makes one a Hindu. Belief in one God, many gods or no god does not matter. The form of worship or prayer, putting on any particular dress or eating any particular food—all are immaterial. Yet by this time one mark of Hinduism practically became established, and it distinguishes a Hindu from the followers of other religions. A taboo on beef and a particular veneration for the cow as a divinity became the distinguishing mark of a Hindu. This obviously did not take place all on a sudden. We saw already that the Aryans used to sacrifice the cow and eat beef. In Rigvedic times there is reference to slaughter-houses. During the *shraddha* ceremony and for entertaining respectable guests beef was considered a particularly delightful delicacy. Afterwards the Aryan sense of utility stood against slaughtering of cows so essential for an agricultural people. Added to this Aryan sense of utility (*Rig.* VIII 90, *Kill not the cow*) was the cause of veneration which dominated pre-Aryan life in India. The bull is associated with Shiva and as such the Indians from pre-Aryan days had a particularly deep-rooted veneration for the animal. In course of time when due to the influence of Buddhism and Jainism non-vegetarian food was given up, the taboo on beef and the veneration of the cow as a divinity persisted. This, again, did not take place all on a sudden. During the sutra period the authors of the Dharmasutras first discouraged the use of beef

as an article of food though the bull could be offered as sacrifice (Vasistha, XIX 40). Later, Apastamba summarily prohibited beef-eating but even at that stage killing of the cow was considered a minor offence. The same penance for the killing of a Sudra is prescribed for the killing of the cow. Manu and Yajnavalka distinguished two kinds of sins (1) Mahapataka and (2) Upapataka and the killing of the cow was included in the second. At a later period the killing of a cow came to be regarded as heinous as the killing of a Brahmin. The ultimate result is that after the revival of Hinduism during the Gupta period non-vegetarian food by the high castes generally and beef by all castes universally was prohibited. At present seldom can a Hindu, however rational and modernised, be induced to take beef and in most areas Hindus are extremely fanatic on this point.

The revival of Hinduism was accompanied by the revival of Sanskrit. The Gupta rulers were Hindus and they patronised Sanskrit learning. Poets, authors and lexicographers used to adorn the royal courts. Sanskrit was the official language for state purposes. Diplomatic relations throughout India came to be conducted through Sanskrit. It became the lingua franca of India. Though not a spoken language it became an excellent medium of literary expression. Panini's grammar continued to be the standard but other simpler rules of grammar were composed so that beginners might easily and quickly master the language. Dictionaries were compiled of which the most famous is that by Amarasimha, one of the nine gems in the court of Chandragupta Vikramaditya. Mainly because it was not a spoken dialect it did not change basically and had a grammar, the rules of which are almost mathematically accurate. Foreign words and expressions came to be absorbed and literary compositions always followed strict

grammatical rules and the language became capable of expressing every shade of meaning. For expressing poetic fancies and feelings as well as subtle scientific and philosophical ideas accurately and precisely Sanskrit became a superb vehicle of thought. "It is of wonderful structure; more perfect than the Greek, more copious than the Latin and more exquisitely refined than either," so said Sir William Jones and never was a truer fact ever announced. Instead of expressing themselves in the language in which they spoke, poets, philosophers, scientists, and authors began to express in this literary language. The study of Sanskrit was thus compulsory for all educated persons and Sanskrit was taught and understood in all the corners of India including the Dravidian South. The strongest bond which unites a group of people together is the common vehicle of expression. A strong sense of national unity grows when thoughts and emotions are exchanged through a language understood by all. That alone can develop fellow-feeling and brotherhood. Sanskrit did in ancient India what English does at present. Though not the mother-tongue of any Indian English has become the second mother to him and the intellectuals of India feel quite at home when they express their ideas in English. The system has its defects but nobody can deny the service the English language has done and will be doing for promoting national unity and the regeneration of India.

This position of Sanskrit, however, produced certain bad effects. All information and knowledge were available through Sanskrit which after all is a difficult language to master. The result, therefore, is that learning and knowledge became the monopoly of a few and in that proportion the education of the rest of the people was neglected. Sanskrit was used by the most learned and patronised by

the court circle—kings, ministers and courtiers. It was an ornate and artificial language, not the language through which ordinary people expressed their ordinary emotions. The Sanskrit literature consequently did not reflect the natural outpourings of the heart in their pure and unsophisticated form. Of course, there were some brilliant exceptions to this rule. Another serious defect was that the vernacular languages were neglected. Sanskrit was the common language of all the areas and as such it was the strongest unifying force. Sanskrit also influenced the local dialects which today contain three-fourths of the words of Sanskritic origin and a close touch with the Sanskrit literature helped the vernacular literature to develop to a considerable extent; yet so long as Sanskrit dominated, other languages languished. The Tamil literature of the South is, however, an exception to this. The Tamil literature was already fairly developed and was not eclipsed wholly by Sanskrit.

Sanskrit is our richest heritage. Hinduism and Sanskrit developed that form which continued for about one thousand years until some modification took place in the course of the last few hundred years when India came in close touch with the Moslems and the British. From the Gupta period onwards a large variety of subjects—poetry, philosophy, grammar, mathematics, sciences, architecture, painting, music, drama and even love-making began to receive classic treatment and manuals, treatises or textbooks called variously as *Siddhantas, Samhitas, Shastras,* or *Saras* came to be compiled and written. The Ramayana and the Mahabharata were finally compiled and their present form continues from that time. Most of the Puranas and the Dharmashastras were also finally recast and rewritten. On different subjects authors collected materials

from sources that were available then, made a gist of the thing in a systematic manner and new standard collections of text-books and manuals were produced. They were mostly in verse. The distinction between prose and verse is not very wide. Prose is converted into verse by certain simple rules. We can give a few instances of such *shastras* at random. *Manasara* is a manual on architecture. It is a very large volume and gives an exhaustive direction on the construction of various types of temples, buildings and monuments. Kamashastra of *Vatsyayana* is a standard authority on erotic. Classification of men and women from the sexual standpoint, the art and science of love-making etc., are exhaustively and elaborately dealt with. Bharata Natyashastra is a treatise on dramaturgy. The three essential parts which make a drama—dance, song and music, are elaborately discussed. Similarly, standard books were compiled on painting, sculpture, music, dance, etc. We have elsewhere discussed the development of art and here we may mention the peculiarity of Indian art in general. According to the Greek standard the copying of the best and the most beautiful in nature is the ideal to be aimed at. The most handsome young man ever available in the natural world is conceived of and a plastic reproduction of such a figure is an Apollo. A realistic imitation of objects in the natural world is the rule in Greek art. Greek sculpture pre-supposes the knowledge of anatomy and physiology. A Greek artist while making a statue has to mark out clearly the bones and the muscles of the model as they actually exist. According to the Indian conception of art, objects as they really exist in the natural world are not to be exactly copied. At its best the perfection of Greek art amounts to photography—a true and correct representation of the object. A Greek statue, therefore, delineates all the muscles and bones in their true form.

AJANTA ART

Bodhisattva in cave No. 1 (6th century A. D.)

A Greek artist will congratulate himself and feel completely satisfied if he can paint a dead body in such a way that when exposed in the field vultures might mistake it to be a real dead body and come to eat it. The Indian ideal of art is different. A real dead body when seen causes certain feelings and emotions. The Indian artist paints the dead body in such a way that everybody, although knowing it to be unreal yet feels the same emotion. Not the flesh, not the world as we see before us but deeper things beyond, have an appeal to the Indian mind. The Indian artist is more spiritual and subjective. He ignores the objective model but tries to create in the imagination of men the same feelings and emotions as are roused by the object. Buddha need not have a princely handsome appearance. He need not look like Apollo. He represents a peculiar other-wordliness and renunciation. He has a deeply contemplative mood, perfectly serene and free from all anxieties of karma and rebirth. The artist, therefore, has to draw such a figure which arouses these feelings when one sees the figure of Buddha or Bodhisattava. But certain forms and technique have become stereotyped and all artists have to follow them. Thus the hand and the position of the palm have to be painted in such a way that they excite the feelings of the softness and delicacy of the lotus and hence the bones and the muscles of the wrist are not to be shown. According to the Indian conception the Indian beauty has a thin figure and a thinner waist and the artist should make the figure so thin as to excite one's ridicule. Once we know these technicalities of Indian art we can ignore the outward and superficial things and appreciate the real inner beauty. This explains, however, why Indian art is not widely and generally appreciated in Europe.

In Sanskrit literature a peculiar style developed called the *kavya* style which began to dominate Indian literature right upto the 19th century. The kavyas are long narrative poems; the theme usually is some episode from the great Epics or Puranas. Then the theme is developed according to the fancy of the author in ornate and artificial Sanskrit involving some particular sentiment usually heroic. Kavyas and dramas must have a happy end and dramas must not show cruel, ugly and gruesome scenes before the

Buddha of the Gandhara School (3rd—5th century A. D.)

spectators. In Sanskrit literature a tragedy is unknown. A drama always has some action and consists of some 10 acts, sometimes 7, seldom less than 5. The hero is usually but not always a king either of this earth or of heaven and there must be some romantic love episode accompanied occasionally by a comic figure. These kavyas have with rare exceptions lacked that human touch and finer emotions which appeal to the modern mind but like Milton's *Paradise Lost* a few centuries ago, were highly appreciated in India. But though the Sanskrit of the kavyas was ornate and artificial and the themes and descriptions conventional and unrealistic there was one great relieving feature about them. "Most of the legends were drawn from the Epics or the Puranas and were often such that people were familiar with them. People did not also miss naturalness and reality because they thought that in literature they were entering into a new world which was bound to be different from the world of nature they knew. The majesty and grandeur of the Sanskrit language, the sonorousness of the word music, the rise and fall of the rhythm rolling in waves, the elasticity of meaning and the conventional atmosphere that appear in it have always made it charming to those for whom it was written. The unreality and conventionality appear to the modern mind looking at it with modern perspectives. The wealth of imagery, the vividness of description of natural scenes, the underlying suggestiveness of higher ideals and the introduction of imposing personalities often lend great charm to Sanskrit poetry." (History of Sanskrit Literature by Dasgupta and De.)

According to the Indian tradition the Ramayana is a kavya and its author Valmiki is the earliest poet of India and the Mahabharata is a history. In historical times

Ashvaghosa in the second century, A. D. is the earliest author on this line. Of his two books, one is *Sariputra-prakarana* which deals with the conversion of the two disciples of Buddha and Buddha himself is introduced as a dramatic person. The other book is *Buddhacharita*. The next important author is Bhasa whose works were lost and unavailable until 1910 when some manuscripts were discovered in the Travancore palace library. His important work is *Svapnavasavadatta*. But the most famous of all Indian poets is Kalidasa, believed popularly to be one of the nine gems that adorned the court of Chandragupta Vikramaditya. Practically nothing historical is known of this unique Indian. There are innumerable stories associated with his life and so many works are attributed to him. Unlike other Sanskrit poets his language is simple, sweet, graceful and dignified and the treatment is less pedantic and conventional. There is always a human touch in his poems and no other poet of India can rouse the finest feelings in the mind of the reader. Of the seven works known definitely to be his, two are kavyas (1) Raghu-vamsha and (2) Kumarasambhava, three are dramas, (3) Shakuntala, (4) Vikramorvashi and (5) Malavikagni-mitra; two of them are long lyric poems, (6) Ritu-samhara and (7) Meghaduta. The last one is a fairly long poem which describes the love-lorn condition of a Yaksha who was exiled for one year by his master from Alaka in the Himalayas to the Ramtek hill near Nagpur for neglecting his duty. As soon as the Indian monsoon started carrying dark clouds towards the north the pining Yaksha, forgetful of the actual physical condition addressed a cloud to convey to his lady-love his message. A modern reader seldom fails to appreciate the pathos and the lyric beauty of this poem.

The most famous and widely appreciated work of Kalidasa is the drama Shakuntala which has been translated into all modern languages of the world and staged in all important cities of Europe and America. The story is summarised thus:

"King Dushyanta goes on a hunting expedition and arrives near the hermitage of the sage Kanva. Walking in an humble attire among the groves, he espies three damsels engaged in watering plants: the maidens are Shakuntala, daughter of a nymph by a human parent and her two companions. Shakuntala has been brought up by the sage Kanva from her infancy and had attained the bloom of her youthful loveliness in those woodland retreats among her rustic companions, her plants and her pet animals. Dushyanta, accustomed to the artificial grace of court beauties, is ravished at the sight of this simple child of nature, dressed in barks which almost heighten her charms, like a veil of leaves, unfolding a radiant flower. He finds a suitable occasion to appear before the maiden and her companions; some words are exchanged and the gentle Shakuntala feels an emotion unknown to her simple life before.

"Love tells on her gentle frame and when he comes to meet her again, 'she resembles a *madhavi* creeper whose leaves are dried by a sultry gale, yet even thus transformed, she is lovely and charms my soul.' The lovers meet and the marriage ceremony, the Gandharva rite, seals their union. Dushyanta leaves, leaving a signet ring with his bride and promising to convey her to his capital almost immediately after.

"Then begins the interest of the drama. Shakuntala when deeply musing on her absent lord forgets to pay proper homage to an irritable sage, who utters a curse

that he of whom she thinks so abstractedly, will forget her. Pacified by the entreaties of her companions the sage modifies his sentence and says that he will call her back to mind on her showing the signet ring. Dushyanta accordingly forgets his rustic love, and poor Shakuntala, then gone with child, pines and droops in her lovely retreat.

"Her foster father Kanva comes to know all and arranges to send the girl to her husband. Touching as this drama is throughout, there is no part of it so truly tender and touching as Shakuntala's parting with her companions and pets in the peaceful hermitage where she had lived so long. The heart of Kanva himself is stricken with grief and his eyes overflow with tears. The invisible wood nymphs bid her adieu; the two gentle companions of Shakuntala can scarcely bear themselves from their loved and departing friend. Shakuntala herself is almost overpowered, as she takes her farewell from all she had so long loved and cherished so well.

"The plot thickens. Shakuntala's lord had forgotten her and the ring which would alone have called her back to his mind is lost on the way. Dushyanta receives Shakuntala and her party politely but declines to receive as bride a woman whom he cannot recognise and who is with child. Poor Shakuntala almost sinks under this calamity for she knows not the cause. She did not hear the curse which was uttered by the sage nor the partial modifications of it to which he consented on the entreaty of her companions. She tries in vain to bring to Dushyanta's recollection those too well remembered events which marked their brief days in the hermitage and at last gets out in mortification, grief and anger. Her companions leave her in the place and separate quarters

are allowed to her but she is saved further humiliation by a miracle. A celestial nymph descends in the form of light and carries her away from the earth where her fate had been sad and bitter indeed.

"An accident now brings the past to the king's recollection. A fisherman caught a fish which had swallowed the ring which Shakuntala had dropped in a stream; on sight of that gem the past comes thronging into the king's recollection. The love he bore for Shakuntala flames forth tenfold and cruel injustice he had done to that gentle and loving and confiding soul maddens him with pain. He relinquishes his palace duties, forgets food and sleep and loses himself in bitter agonies.

"He is roused from his stupor by the god Indra's charioteer who on behalf of Indra asks the king's succour against Danavas. The king mounts the celestial car and conquers and is then taken to the hermitage of Kasyapa, father of the gods, residing there in holy retirement with his consort Aditi. While waiting there the king sees a powerful little boy playing with a lion's whelp. "Ah! (he thinks) what means it that my heart inclines to this boy as if he were my own son? (meditating) Alas! I have no son and this reflection makes me once more soft-hearted." The boy is Shakuntala's son. Shakuntala had been carried away by the pitying gods and kept here until the king's clouded recollection was clear again. And when Shakuntala appears Dushyanta craves her forgiveness on his knees and he is forgiven by the too loving Shakuntala. The reconciled pair are then taken with the boy to the divine pair Kasyapa and Aditi and the play closes with the blessings of those holy personages." (R. C. Dutt)

Bharavi is another poet who wrote the *Kiratarjuniyam* in kavya style. Another poet Bhartrihari wrote three

long poems of 100 stanzas each; one poem deals with love; another with policy and the third with renunciation. Sometimes he was overwhelmed with passionate love but again he renounced the world and became a recluse and in this way he went from one extreme to another extreme and his soul was tormented between the two diametrically opposed emotions. He could not steadfastly follow any and suffered actually from that unhappiness which always accompanies mental indecision. Sometimes, the sweetness and the art in poetry are sacrificed for displaying certain literary cleverness. Dandi is a poet who wrote the *Adventures of the Ten Princes* in prose. In one chapter, one of the princes narrated his adventures. He had mouth-sore by kissing too much and could not close his lips and the whole chapter is narrated in words which contained no labial. In Bharavi's *Kiratarjuniyam* there are stanzas where each line read backward is the same as the following line; stanzas when read backward and forward are the same. Bhatti is another clever poet who wrote his kavya dealing with the killing of Ravana by Rama but the main purpose of the book was to illustrate certain unusual rules of grammar and to explain rules of morality and politics. Clearly by these clever literary gymnastics the artistic beauty of the kavya is not enhanced, but this shows how in certain matters of prosody, grammar, rhetoric etc., considerable progress was made.

Banabhatta was the court poet of Harsha who himself was a poet and distinguished author. Bana wrote *Harshacharita*, a biography in the kavya style and a prose romance called *Kadambari*. Bhavabhuti who was a close second to Kalidasa wrote *Malatimadhava* and the drama *Uttararamacharita*. Two very interesting dramas, however, are *Mrichchhakatika* by Sudraka and *Mudrarakshasa* by

Vishakhadatta. In the former the theme is not some episode from the great Epics. It depicts a vivid picture of the easy-going social life in one of the important cities of ancient India. The plot is surprisingly modern as if conceived yesterday and a modern Indian reader of today will derive genuine pleasure by reading it. The hero Charudatta is a Brahmin who was poor but honest. The heroine is a courtesan Vasantasena who has fallen in love with Charudatta. The villain is the crown prince who offers his advances to Vasantasena without success. A large variety of characters—all living and extremely interesting are introduced and the plot moves fascinatingly.

Vishakhadatta's *Mudrarakshasa* is a political drama. The hero is Chanakya, the crafty Brahmin who helped Chandragupta in ousting the Nanda dynasty from the throne of Magadha. The ex-minister of Nanda was completely loyal and devoted to his former master and the two ministers fought a duel in craftiness and stratagem till at last Nanda's minister Rakshasa is won over. Chanakya, the Brahmin retires voluntarily as a recluse.

Ancient India made phenomenal progress in drama. Some 500 dramas are known to exist and the text book on architecture, *Manasara*, gives elaborate details as to how to build theatres for different purposes. No doubt the Indian theatre evolved from pre-historic times from open air singing of ballads and recitations, instances of which we get in the Ramayana. The question as to what extent the Greek theatre influenced the Indian theatre is hotly debated and arguments, equally available on both sides are inconclusive. The indirect evidence of Greek influence exists. Greek culture dominated the royal courts of Bactria and like art might have influenced the Indian theatre. The drop-scene in Sanskrit is called *yavanika* and it is

held that the word shows the Greek influence but curiously neither the Greek nor the Indian theatre had any drop-scene. The Indian stage is a raised platform without any scene. The green-room is separated by a screen and the other side of the screen is called *nepathya*. A throne for the use of the king and such other simple materials are used and the figures of the drama come and act before the auditorium. Things which cannot be shown without proper scenes are left out and are simply suggested by certain symbols and indications. A clever author has to compose his work in such a way that the dialogues produce the desired effect without the help of scenes. Dialogues, dancing, music and action are the elements which make the drama. Death or ugly and revolting sights are omitted. A happy union is always the end.

The art of writing poetry and literary criticism has become a subject by itself and one Rajashekhara (11th century), has written on subjects like how a poet and author should do and live and manage matters. From the classical literature we can visualise fashionable lives in ancient India. An Indian beau in a city has a house with a large tank in the east and a garden beside it, having many rooms for his works, for meeting people, for bath—a house divided into two parts, one internal for the ladies and another external. In his bedroom there is a cot and the bed is covered with a white sheet and pillows on both sides, the head and the feet. At the head side of the bed on one corner stands the idol of some deity; there is a small table with four legs of the same height as the bed; it contains flowers, garlands, sandal paste, a little wax in a vessel, a fan and spices; there is a spittoon on the ground, some musical instruments must be hanging in one corner; there is a number of pictures on the wall, articles for

painting on the table, some books and writing materials. Outside the veranda possibly there are some birds like parrots in a cage. There is a swing hanging in some shady place and an elevated quadrangle for sitting at pleasure under some big trees in the garden. He rises early in the morning, performs his morning duties, finishes the bath, says his prayers and besmears himself faintly with sandal paste, wears washed clothes fragrant with the smoke of aguru, wears a garland, slightly paints his lips, puts some powder on the face, chews betel leaves and looking at his face in the mirror will go out for his daily duties. He bathes once every day, shaves twice or thrice a week, cleanses his body, gets himself massaged, sometimes takes vapour bath and takes his meals thrice and after meals would either play at dice or chess or go to sleep. In the evening he would go to the club where he would talk and discuss literary subjects. The clubs may be situated in the houses of courtesans who are fairly cultured and expert in music. Such clubs are encouraged by the kings. They would chew betel leaves but no tobacco which is not yet introduced in India. They may often drink wine but in those times venereal diseases were unknown. Vasco da Gama and the Portuguese for the first time imported these diseases into India from Europe. The dog, the cat, the parrot etc., are pet animals. Sometimes in the gardens of the rich people the deer, the peacock etc., are kept. Whenever a guest comes he will be offered some cold water to drink and betel leaves with spices to chew. Aerated water, tea, coffee, etc., were completely unknown. If a guest comes during the meal-time he is sure of getting food and will always be honoured and entertained. (Dasgupta and De)

The life of an ordinary peasant, however, is not so pleasant. He possibly has one small room accommodating the entire family and sometimes possibly the produce of his field and even animals. The houses have less windows, and are unplanned and unhygienic, and ordinary people toil all day long but possibly happy in their own way.

Besides narrative poems, dramas, romances, biographies etc., India's contribution in another field is unique. It is the juvenile literature. Not the ornate and artificial Sanskrit for court circles and the sophisticated few, but short and interesting stories in plain and simple Sanskrit both prose and verse in which birds and beasts talk wise things and act and behave intelligently like human beings. Such fables and stories are very attractive to young children who easily get interested and through the interest thus created begin to learn the language. One such fable-collection is the *Panchatantra*. The story begins in this way. A king had three sons who were averse to education. On the advice of his ministers the king sent his children to one Brahmin teacher of great repute. The teacher started telling the boys stories where birds and animals of which children are so fond talked and did things in clever and interesting ways. For ordinary animals talking in chaste and correct Sanskrit, behaving in sober and intelligent manner like human beings and illustrating some morals must be extremely attractive to young children. Otherwise the alphabet, the grammar and composition become so dull and oppressive. But stimulated in this way boys are attracted to learning and they can easily master the subject. Panchatantra means a story book divided into five chapters. The book itself was derived from preceding works that existed and later, other adaptations and compilations with different names took place so that this new

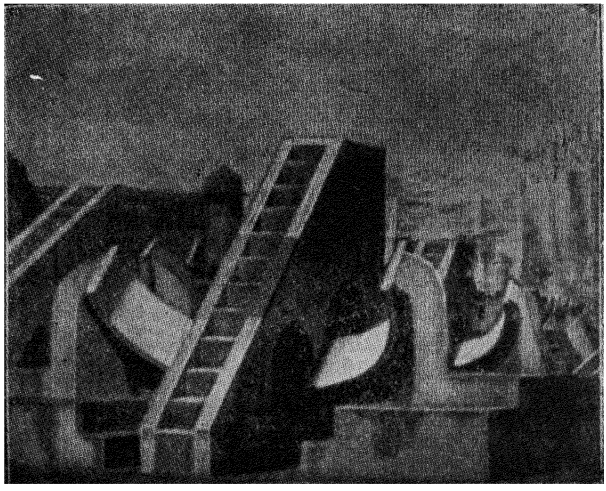
kind of literature became extremely popular. Thus we have the *Hitopodesha* (wholesome advice) which is a text-book for all beginners of Sanskrit. In another book *Vetala Panchavimshati* the main story begins thus: One ascetic came to the court of king Vikramaditya and gave him a fruit and sat quietly for some time and then went away. It was repeated several days when one day the fruit was broken and a gem came out of it. The king was surprised and interested. The ascetic then requested the king to come to his hermitage next new moon night at twelve alone and unarmed. The king was bold and venturesome and he, accordingly, went to the hermitage and saw the ascetic practising some religious rites. The king was then asked to go to a tree at some distance where dead bodies were burnt and bring one dead body from above a tree but must on no account talk with the dead body. Accordingly, the king went to the place, climbed up the tree, got hold of the dead body that was tied there and proceeded towards the hermitage. The dead body was not quiet. It screamed, shrieked, laughed and wept wildly and tried to frighten the king in all possible ways but the king was undaunted. At last the dead body told the king a story which contained one puzzle at the end and the king was asked to solve it. When the king who was not only physically bold and daring but also wise, far-sighted and intelligent, correctly solved the puzzle and gave the right answer, the dead body at once left him and went to the tree. The king again went to the tree and took it back and this time another story was told. This time also the king was asked to solve the puzzle which the king did correctly. But as soon as the king uttered a word the dead body left him. This was repeated 25 times and 25 stories were told after which the dead body told the king the real intention of the ascetic.

The ascetic wanted to gain some supernatural powers by sacrificing one hundred kings before the altar of the goddess Kalika. He had already sacrificed 99 kings and Vikrama was going to be the hundredth. Thus forewarned the king went to the ascetic who was much pleased and asked the king to bow down before the goddess. As instructed by the dead body beforehand the king replied that as king he never bowed down before and did not know how to do it. The ascetic then, knelt down and showed actually how to bow when the king snatched the sword and sacrificed the ascetic. By this sacrifice the goddess was propitiated and as the sacrifice of 100 kings is equal to that of one ascetic he got the supernatural powers. Henceforth two genii *Tal* and *Vetal* were always at his command and king Vikrama could do wonders with their help.

There is another story book called *Shukasaptati*—"Seventy Stories by a Parrot" by an unknown author probably of the 7th century. The main story is this: A jealous husband who could not believe his wife, left one parrot before he started for his journey in the expectation that the parrot would reproduce verbatim the conversation that would take place in his house in his absence. The parrot, however, managed to keep the wife in the house simply by telling her attractive stories every night just when she wanted to go out for adventures. This was done seventy nights by seventy stories till the husband returned. The famous Arabian story book *Thousand and one Night Entertainments* a few centuries later may have been influenced by this book.

The history of the migration of the Panchatantra in foreign countries has been traced by scholars and it is an interesting story by itself. A German scholar records over 200 different versions of the work known to exist in more

than 50 languages three fourths of these being extra-Indian. The book was given as a gift along with the game of chess to the Persian ruler Khosru by an unknown Indian king in the 6th century. It was translated into Persian by Barzuye. In the 8th century it was translated into Syriac and Arabic. The title of the Arabic version was *Kalilah* and *Damnah*—a corruption of the Indian names (*Karataka* and *Damanaka)* of two jackals who played important roles in the tale. It was translated into Greek in the 11th century and into Hebrew, Latin and Spanish in the 13th century. The Latin version had the title of *Aesop of the Old* on the expectation that the book would receive more attention if attributed to the old Greek author of 6th century B. C. who is credited with the creation of



THE ASTRONOMICAL OBSERVATORY OF JAIPUR

It was built not long ago but is based on sources which are old. Such observatories exist at Delhi, Benares, Ujjain etc. Some instruments cannot be explained now.

similar animal stories although nothing authentic of Aesop has survived. In the 14th century one Greek monk of Constantinople, Planudes by name made a collection with many stories from Indian sources and boldly called it *Aesop's Fables*. Obviously whenever an Indian story passed into another country some adaptation took place in order to suit the readers of that country. For this it is sometimes difficult to believe that the Aesop's fables is our old Panchatantra. Yet scholars have traced the connecting links and it has been shown that some of the most popular stories like *Jack and the Beanstock, the Magic Mirror* etc., are of Indian origin.

CHAPTER XIV

INDIAN LEARNING AND THE SCIENCES

Writing and the script—not known in Rigvedic times—some doubtful instances—instances from Panini. Indus Valley script not yet deciphered. Panini's grammar —comparison with Comparative Philology. Beginnings of Vedic geometry—altars—the Sulva sutra—Pythagoras' theorem. Geometrical algebra. Arithmetic—the numerals—zero, addition, multiplication etc., by the Greeks and the Romans—the Indian system. The decimal place value system—the origin of zero—mathematics of zero. Contact with Persia, Arabia and China. Algebra, Aryabhatta—astronomical tables—note on arithmetic, on time and its measure and on sphere. The square-root, the quadratic equation—earliest attempt at a general solution of a linear indeterminate equation by the method of continued fractions. Revolution of the earth on its own axis—lunar and solar eclipses—circumference of the earth. Varahamihira and his five books—the Greek and the Roman systems of astronomy compiled by him. The law of gravitation. Brahmagupta—the integer, fraction, progression, the mensuration of plain figures. Mahavira, Bhaskara—complete mathematics of zero—division of fraction by the inverted divisor.

When was writing first introduced in India? The Asoka inscription in Brahmi and Kharosthi scripts in the 3rd century B. C. are the earliest specimen of writing still existing in India. Formerly it was believed that the Brahmi script, out of which the modern Indian scripts have developed, was introduced sometime in the 8th century B. C. from some Semitic source. This opinion is not

generally accepted. It is true that in the Vedic times knowledge was transmitted orally and not through books and writing. But this was true in all ancient countries including Greece. We have seen that Pythagoras followed the same principle. In the Vedic literature there are references to writing and letters, although it is certainly true that writing generally was never practised on a wide scale until very recently. Rigveda (x 62.7) says, "Give me a thousand cows on whose ears the number eight was written." In another context (x 34) a Brahmin expresses his grief after gambling thus: Having staked on one (i.e., the number stamped on the dice) he lost his faithful wife. Atharva Veda (VII. 50,52,5) mentions "written amount" and Panini contains the expressions *Yavanani* (Semitic writing) and the compounds *lipikara, libikara* (writer) which shows that during this period writing was known. The use of such terms in the Vedic literature as *aksara* (a letter of the alphabet) kanda (chapter) *patala, grantha* (book) etc., and the use of prose in the Brahmanas strongly indicate that besides being learnt by heart, letters and books were not absolutely unknown. Recently pottery belonging to the Megalithic (1500 B.C.) and the Neolithic age (6000 B.C. to 3000 B.C.) preserved in the Madras Museum, has been discovered and these are inscribed with writing. Some five of these marks are identical with Brahmi letters. The excavation of Mohenjo daro, as we have seen, has also brought to light seals and inscriptions with writing. In the absence of bilingual inscriptions it is not possible to decipher them and no conclusive opinion as to how the Brahmi script developed from the Indus Valley script, is possible. The weight of opinion, however, is that the evolution of the letters took place in India independently from picture writing to sound symbols.

The first historical Indian grammarian was Panini. He was a native of Shalatura near Attock and flourished sometime in the 7th century B. C. He says, as is usual, that he had a good number of eminent predecessors but nothing is known of them. Obviously Panini wrote his grammar on the basis of those of his predecessors but his treatment of the subject was far more superior and hence soon it ousted others. By this time Sanskrit literature, both prose and verse, religious and secular, was fairly well developed. For mastering the language rules of grammar came to be used by the students and Panini prepared his celebrated grammar. It is very small in size, neatly compact and wonderfully scientific. We do not as yet know of any grammar in any language in the world—past or present—that can rival Panini in its scientific treatment. Most words and expressions have been reduced to their roots out of which different parts of speech with various declensions have arisen. It is objective and is based on phonetic principle. A Sanskrit word will be derived from some root conveying some meaning and then according to some well defined rules the word can be converted into various parts of speech with different shades of meaning. Suffixes, prefixes, compounds etc., follow definite rules and within the framework of Panini's grammar, the words and expressions have become flexible and capable of conveying different shades of meanings. Not only do the rules of Panini's grammar enable students to learn the Vedic language quickly and thoroughly, it has also given the Sanskrit language a peculiar flexibility of development on set lines and though the grace of the language has changed from age to age the essential character of the language remains unchanged. The same grammar that helped students to master the language 3000 years ago, is equally helpful today. Panini's grammar is almost a perfect grammar if the

grammar of a growing language can ever be perfect. Even today, when an Indian name is to be given to some new object not known in the ancient world, e.g., railway, aeroplane, radio etc., one has to take some Sanskrit root conveying the same idea and then develop it into the exact form according to the rules of Panini. The science of Comparative Philology developed mostly in Germany in the 19th century is practically based on the same principle. As for example, we can take the instance of the English words *wheel* and *rose*. Their Indian corresponding words are *chakra* and *gulab*. Both (wheel and chakra, rose and gulab) are derived from the same common source. In English, words change their forms according to certain rules and become what they are. Similarly in Sanskrit, as well as in other languages certain rules account for the change that the same common words follow. Comparative Philology studies those rules which different languages follow and once they are known it is easy to learn and master different languages. This exactly is the basis on which Panini's grammar stands. Once we know the rules which govern the formation of different words and the parts of speech, it becomes very easy to learn the language.

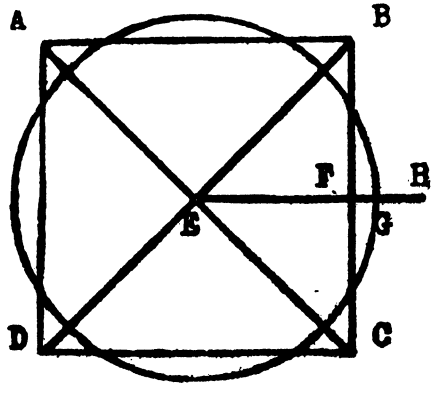
The period of Panini (700 B. C.) can be compared with the corresponding period of Greek history. It was during the Heroic age of Greek history that the Homeric ballads were composed and sung. India had already passed her Heroic age. Besides the epics like the Ramayana and the Mahabharata, the prose literature of the Brahmanas and the Sutras was considerably developed. As the language and literature grow, grammar has also to follow them and after some time newer commentaries on Panini came to be written. Of these Patanjali's *Mahabhashya* was the most celebrated.

Not only the sacred language of Sanskrit used mainly for literary, religious and scientific purposes, but the vernacular languages also began to receive attention. Mahavira preached his sermons in a local dialect and these were put into writing in *Ardha Magadhi*. Gautama Buddha preached his sermons in the similar way in some local dialect and these also came to be written in a language called *Pali*. As a result of the stimulus given to those languages other literary and scientific subjects came to be written in them. We have the Jataka stories in Pali and the Jain canonical texts in Ardha Magadhi. From insignificant local dialects these literary languages were developed with their own grammars. But Sanskrit was never ousted from its position of eminence. A few centuries later we have the classical Sanskrit which continues to be the richest heritage of India.

While performing religious rites and sacrifices the Vedic sages had to make altars of different shapes and sizes and for the proper timing, had to observe, in the absence of clocks and watches, the movement of the heavenly bodies. This gave rise to various sciences. Thus the science of geometry was first cultivated in India but as later, the sacrifices did not form part of Hindu religion and as geometrical conclusions could be obtained with the help of algebra, this science gradually declined in India. Every school student of today knows the elementary theorems and problems of Euclid and geometry has become synonymous with Euclid. He was a Greek of Alexandria and wrote a treatise on geometry in such an excellent manner that for the last 2000 years his book continues to be the text-book on geometry throughout the world, but obviously he was not the discoverer of geometry. Geometry was known and cultivated in Greece by his predecessors but

those predecessors are today forgotten. Similarly, the Hindus some 3000 years ago knew and cultivated geometry, of course, on an elementary scale, but they are completely forgotten and neglected. We shall give here some instances of early Hindu geometry.

A Vedic sage had to construct altars of different sizes. Each altar had on its surface some amount of sand on which the sacrificial fire was lighted. On the altar some geometrical figures with their peculiar mystic significance were drawn. Thus the drawing of the circles, triangles, squares etc., of various sizes had to be learnt. The Sulva sutras, so called because these were drawn with the help of some thread, gave instructions on the subject and we have the beginning of geometry. The rule of describing a circle equal to a given square says, "If you wish to draw a circle equal to a square of given area, draw half of the chord stretched in the diagonal from the centre towards the *Prachi* line (i.e., towards east); describe the circle together with the third part of that piece of the chord which will lie outside the square." It may be thus illustrated:



E B is half of the diagonal of the square ABCD stretched in the diagonal DB. Keep the point fixed and draw the chord towards the eastern line EF. A part of the chord FH will be outside the square. Take a third part of FH together with the part inside EF and describe the circle with the radius EG. The result, of course, is correct approximately.

Another proposition is "that the chord stretched across a square produces an area of twice the size". In modern language it means that the square on a diagonal of a square is twice the original square.

Another proposition says that the diagonal of an oblong produces by itself both the areas which the two sides of the oblong produce separately. In modern language it means that the square on a diagonal of a rectangle is equal

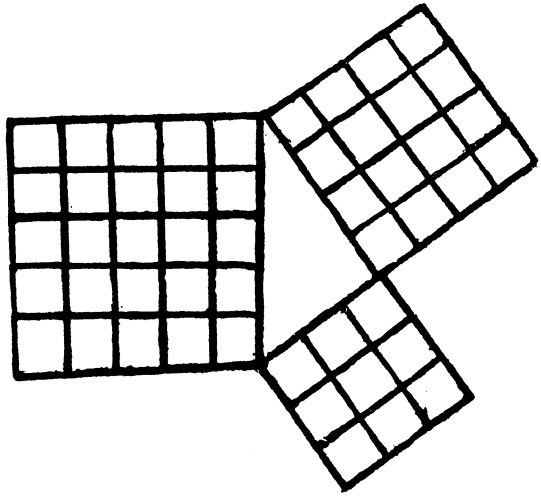


Fig. 1

to the sum of the squares on the two sides containing the right angle. Tradition attributes this theorem to Pythagoras but this tradition began five centuries after him and was based upon a vague statement which did not specify this or any other great geometrical discovery as being due to him. The authors of the Sulva sutras, however, knew this proposition more than 3,000 years ago. It is probable, as is also natural, that the truth of this theorem was first perceived and proved in the case of rational rectangles and then generalised and found to be true universally. On actually drawing the squares on the sides and diagonal of such a rectangle and dividing them into elementary squares, it will be easily found by calculation that the square on the diagonal of a rectangle is equal to the sum of the squares on both sides (Fig. 1 shown on page 217).

As regards the geometrical proposition it will be natural to presume that the proof of the simple theorem of the square on the diagonal of a square was discovered first (Fig. 2).

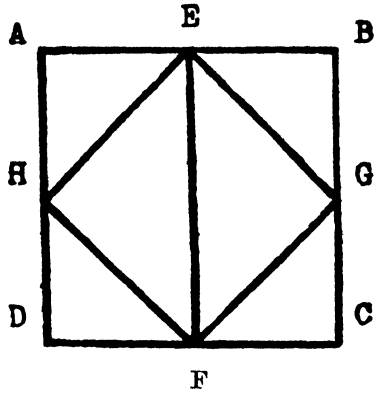


Fig. 2

Here the required figure EGFH is obtained by joining the middle points of the sides of a square ABCD drawn previously. The square ABCD is known to be twice the square EGFH in area. It was the usual practice of the Vedic geometers in constructing a square (or indeed of any other regular figure of given sides) to do it in such a way as to make it lie on the east-west line HG. This HG is, again, the diagonal of the newly-formed square EGFH. Thus the square ABCD is twice the square EGFH on the diagonal EF. So this figure leads in a very simple and vivid way to the discovery and proof of the theorem of the square on the diagonal of a square.

Further hints leading to the proof of the general theorem of the square on the diagonal of a rectangle are also contained in the Sulva sutras.

In the course of the construction of the fire altars it was necessary to add together or subtract from one another two or more figures such as squares, rectangles, triangles etc. In the case of combination of squares, mere application, repeated when necessary, of the theorem of the square on

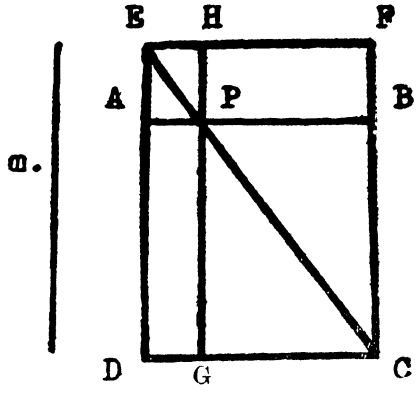


Fig. 3

the diagonal was sufficient. But in the case of the figures they had first to be transformed into squares before the theorem could be applied and the combined square was then used to be retransformed into any desired shape. The method described in the Sulva sutra for the transformation of a square into a rectangle which shall have a given side, is very scientific (Fig. 3 shown on page 219).

Let ABCD be a given square and m a given length which is greater than a side of the square.

Produce DA and CB to E and F respectively so as to make DE=CF=m. Join EF. Join E and C cutting AB at P. Through P draw HPG parallel to ED or FC. Then HFCG is the rectangle which is equivalent to the square ABCD and whose side HG is equal to the given length m. For,

Triangle EFC = Triangle EDC
,, EHP = ,, EAP
,, PBC = ,, PGC

∴ rectangle HFBP = rectangle ADGP. Hence rectangle HFCG = the square ABCD. The geometrical method of the transformation of a square into a rectangle having a given side, which is just described is obviously equivalent to the solution of a linear equation in one unknown, viz.

$$ax = C^2$$

Thus the Vedic geometry contains the seed of Hindu geometrical algebra whose developed form and influence we find as late as the *Bijaganita* of Bhaskara II (A. D. 1150). It has a solution of the complete quadratic equation.

$$ax + bx = c$$

As geometrical conclusions were arrived at more conveniently by algebra, the cultivation of geometry was discontinued. The Sulva sutras were primarily concerned

with religious rites and sacrifices and geometry for the sake of geometry was not further cultivated as it was done in Greece. It is a matter of regret that geometry which originated first in India was left in its rudimentary stages without further progress.

The progress made in arithmetic and other branches of mathematics and astronomy was considerable and any Indian can be proud of that. Arithmetic is called *Patiganita*. The word *ganita* literally means the science of numbers or calculation. This science of calculation with the numerals a beginner had to do on a piece of wood with some sand on it with the help of the finger or a stick. For this the work was also called *dhulikarma*. Books were rare, and in India whenever any book was used it was made of a collection of palm leaves.

Primitive people could not conceive of large numbers. Even now many illiterate people will not understand what one hundred means. They will speak in terms of dozens or scores. There are many primitive races among whom a number beyond 5 or 6 is not understood. They will count as one, two, three, four and then *many* or *all*. Such words as million or billion came into use only very recently. It is not found before the 13th century and seems to have come into England even later. In this respect India even in the earliest Rigvedic times made considerable progress. At a very early date the Indians knew long series of number names for very high numerals. While the Greeks had no terminology for denominations above the myriad (10^4) and the Romans above the mille (10^3), the ancient Hindus dealt freely with no less than eighteen denominations. At a later stage, Alberuni, the celebrated Arab scholar who came to India in search of learning, observed: "I have studied the names of orders of the numbers in various languages and

have found that no nation goes beyond the thousand. But the Hindus extend the names of the orders of numbers until the 18th order." This is called *Parardha.* At the beginning before the decimal place system was invented these large numbers were only expressed in words. Smaller numbers were only expressed by sign symbols. No specimen of writing either words or numerals prior to the Asoka inscriptions of the 3rd century B. C. is extant.

Megasthenes tells us that milestones on roads were used in India. This inferentially shows that numerals must have been widely used in this country.

The seals of Mohenjodaro contain numerals but nothing definitely can be asserted of them. Of the existing inscriptions from the 3rd century B. C. onwards, like letters and scripts, we find two kinds of numerals one Kharosthi and the other Brahmi. The Kharosthi numerals and letters were of foreign origin and after a few centuries went out of existence from India, but the Brahmi numerals like Brahmi letters had continued, and all modern Indian as well as European numerals are derived from them. In most ancient societies including Mohenjodaro the first three numerals are expressed by vertical strokes. Possibly counting was first done with the help of the fingers and hence one finger was represented by one vertical stroke. In India, however, the first three numerals were represented by horizontal strokes. The horizontal strokes may be pictures of computing sticks like those which the Chinese used in ancient times and which appear in the Chinese numerals. Thus in Egypt, Mohenjodaro etc., they were represented thus:

1	2	3	4	5	6
I	II	III	III I	III II	III III

In India, in the ancient inscriptions they were represented thus:

1	2	3	4
—	=	≡	×

The earliest Sumerian forms of the numerals were horizontal and the later Babylonian ones were vertical. The Mediterranean lands adopted the vertical forms and the Far East preferred horizontal.

From the symbol || came also the Arabic ٢ which is English 2 if turned on its side. The English 2 is merely a cursive form of = and 3 is similarly derived from ≡ (i.e. 3). For other numerals from four to nine it is difficult to explain how they developed. Numerous conjectures have been made so far but no one has any wide acceptance and, Mr. D. E. Smith, the author of *History of Mathematics* concludes "None of these theories, however, has stood the test of scholarly criticism and today we have to confess that we are entirely ignorant as to the origin of the forms which began possibly in India in Asoka's time and appear as the common numerals which we use." The same author gives several Sanskrit, Arabic and European forms for comparison.

1	2	3	4	5	6	7	8	9	0
१	२	३	४	५	६	७	८	९	०

The greatest contribution in this subject, however, is the decimal place value system. At present we use only nine symbols and one zero with the help of which we can write any number. The number ten is called the *radix* and by the additive principle we can increase it to any figure. All operations of arithmetic have become astonishingly simple and convenient by this decimal place value system.

According to the Roman numerals if we are to add 777 and 216 together we shall put as (D = 500, C = 100, L = 50, X = 10, v = 5 etc.).

D C C L X X V I I
C C X VI

D C C C C L X X X X III

The operation is obviously very cumbrous. When we know the decimal place value system we can put seven hundred seventy seven as 777 and two hundred sixteen as 216 and putting the units, tens and hundreds below one another, add them and get nine hundred ninety-three. The Hindus used two methods for the operation of addition. They are known as the direct method and the inverse method. Bhaskara gives as the first problem in the Lilavati the following, "Dear intelligent Lilavati,..... tell me the sum of two, five, thirty-two, a hundred and ninety-three, eighteen, ten and a hundred added together."

i. e.	2	Now, the sum of the units = 20
	5	,, ,, tens = 14
	32	,, ,, hundreds = 2
	193	
	18	and the sum of the sums
		= 360
	10	
	100	
	360	

This is the direct method. The inverse method can be illustrated. Here the work begins from the left blotting out the numbers as they were corrected.

We can cite the example of the different processes of multiplication that were known in the ancient world. In Egypt the duplication plan was known. They would multiply 17 by 15 thus:

	1 × 17	... =	17
	2 × „	... =	34
	4 × „	... =	68
	8 × „	... =	136
	16 × „	... =	272
less	1 × 17	less =	17
∴	15 × 17	=	255

The Greeks and the Romans did the operation of multiplication with the help of the abacus and the wax tablets but they were equally inconvenient and cumbrous. The real interest in the methods of multiplication begins with Bhaskara's Lilavati (c 1150) where five places are given. Thus to multiply 135 by 12,

(1)		(2)	
	135		135
	12		12
	12		135
	36		270
	60		1620
	1620		

In the first case the multiplier is treated as one figure number and the work begins at the last; in the second the multiplier is separated as is done now but the work begins at the left.

One Pacioli (1494) devised eight plans and the one now common throughout the world was called the

chessboard plan because of its resemblance to a chess board. Thus

				9 6	8 7	7 8	6 9
			8	8	8	8	4
		7	9	0	0	8	
	6	9	1	3	2		
5	9	2	5	6			
6	7	0	4	8	1	6	4

The exact place, time and authorship of the decimal place value system is not known. Nor can we say why the place value system should be by ten and not by twelve or eight. Other varieties of the place value system are believed to have existed independently in Mexico but the Hindu-Arabic system is so established throughout the civilized world that those are completely ignored. In India the earliest use of the place value principle in mathematical work occurs in the Bakhshali manuscript about A. D. 200. It occurs in the Aryabhattiya composed in A. D. 499 and in all later work without exception. This means that by this time this system has completely replaced the old one and has been universally accepted. Several centuries must have passed between its origin and final acceptance.

The place value system with nine symbols and one zero is the basis of the science of calculation. How the term zero came is not yet known. The Indians called it *sunya* which means void and as such it was known in the 2nd century B. C. (Pingala-Chhandah Sutra) but the mathematical implications of zero came to be gradually understood. From the 5th century onwards in all mathematical works the place value system with zero came to be systematically used and by the 10th century it had completely ousted the older system. In the meantime it began to move towards the West through the Arabs. This term *sunya* passed over into Arabic as *as'sifer* or *sifr*. Some called it *Zephirum* and some *Tziphra*. It passed over into Italian as Zeuero. Ceuera, and Zepiro and ultimately into zero. The form of the zero may have been suggested by an empty circle, by the Greek use of the omicron to indicate a lacuna, by the horned circle used in the Brahmi symbols for ten, by the Hindu use of a small circle as well as a dot to indicate a negative or in some other way long since forgotten. There is no probability that the origin will ever be known and there is no particular reason why it should be. We simply know that, as Smith in his *History of Mathematics* writes, "The world felt the need of a better number system and that the zero appeared in India as early as the 7th century and probably sometime before that and was very likely a Hindu invention."

The complete arithmetic of zero was not fully developed. The ordinary implications of zero in arithmetic and algebra were understood but certain conceptions e. g., division of a finite number by zero were not fully understood. While the systematic chronological development of the science of mathematics like so many other things from purely Indian sources cannot be traced, its later development from foreign sources is clearer. The first definite

trace that we have of the Hindu numerals outside India is in a passage from *Severus Sebokt* (c 650). During this time there were many Christian centres of learning over which the Arabs were soon to hold sway. In one such Christian monastery in Syria lived Severus Sebokht, the most learned man in the 7th century. He was a titular bishop, and distinguished himself by his studies of philosophy, mathematics and theology. Greek culture had influenced Europe so much that there were many then and there are many still now who cannot think of any superior thing to be of non-Greek origin. To such Europeans, except the blind forces of nature nothing moves in this world which is not originally Greek.

Some such scholars thirteen hundred years ago must have talked arrogantly and our Christian bishop seems to have been hurt by the arrogance of those Greek scholars who looked down on the Syrians and in defending the latter, he claims for them the invention of astronomy. He is astonishingly broad-minded and asserts that science is universal and is accessible to any nation or to any individual who takes the pains to search for it. It is not, therefore, a monopoly of the Greeks but is international. By way of illustration, he says,

"I will omit all discussion of the science of the Hindu, a people not the same as the Syrians; their subtle discoveries in this science of astronomy; discoveries that are more ingenious than those of the Greeks and the Babylonians; their valuable methods of calculation; and their computing that surpasses description. I wish only to say that this computation is done by means of nine signs. If those who believe, because they speak Greek, that they have reached the limits of science should know these things

they would be convinced that there are also others who know something."

The Indian numerals must have gone direct to Alexandria without passing through Baghdad, with the cargoes of India and China without the symbol of zero and hence such a system could not attract much attention. Through Alexandria the numerals without zero went to Spain and other countries. But soon Baghdad became a famous centre of learning and through Baghdad the Indian numerals spread. Intercourse between these countries was also very regular. In so far as this intercourse was commercial it influenced the art of calculation, while travel of pilgrims and the movement of armies resulted in the exchange of a knowledge of both astronomical and abstract mathematics. Moreover, the priest whose leisure allowed him time for the study of mathematics, was often an astronomer and was the professional astrologer who was looked upon as a natural attendant at court or a necessary adjunct to the general's staff. When the army moved, there went a knowledge of mathematics. Astrologers of one country thus consulted with those of another. The itinerant tradesman, the pilgrim and the army were the means of the exchange of ideas in all ancient times just as books and periodicals are the corresponding media in our day.

Of the many evidences of intercourse that we have in this period a few may be mentioned simply as typical. In 518 Hui-sing, a Buddhist pilgrim visited India; some time in the 7th century a Sanskrit calendar (the Chiu-chi-li as it was called in Chinese) was translated into Chinese; in 615 an Arab embassy visited China; in 618 a Hindu astronomer was employed by the Chinese Bureau of Astronomy to devise a new calendar; in 629 Yuan Chwang

came to India and after his return in 645 he devoted his life to the translating of Hindu works, of which he brought no less than 657 from India; in 636 so the Chinese records assert, a Roman priest whom these records speak of as Alopen came to the capital of China and at the end of the 7th century Buddhist pilgrims sailed from Canton to Java and Sumatra. In the 8th century Arab ambassadors visited China several times; in 719 an ambassador was sent from Rome to the Chinese Court. About 800, when Bagdad was becoming the centre of the mathematical world, the Chinese received an embassy from Harun-al-Rashid. Masudi, (died at Cairo 956) the famous Arab geographer and historian, visited India, Ceylon and China and his *Meadows of Gold* is well-known.

At Baghdad in *al Mansur's* reign a Hindu named Mankah brought a work called Sindhind and it is considered to be the Arabic translation of the *Surya Siddhanta.* After some time another Arab scholar *al Fazari*, a man of unusual scholarship was asked by the Caliph to translate the Hindu mathematical work brought by Mankah. It was on this translation that Mohammed ibn Musa al-Khowarizmi (the greatest Arab Mathematician) based his astronomical tables. Besides astronomy he wrote on arithmetic which was translated into Latin under the title *Algoritmi de numero Indorum.* He is, however, best known as the first author leaving the name *algebra*, a treatise based upon Greek model. The title of the book was *ilm al—jabr wal mugabalah* i.e., the science of reduction and calculation. He was not the inventor. The Greeks and the Indians knew the science before. But he arranged his subject in so systematic a manner that it ousted the older writings and the name algebra still continues to day. In the same way the Alexandrian Greek, Euclid was not the inventor of geometry which was known

before him. But his treatment of the subject was so excellent that every beginner started geometry with Euclid and the earlier geometers were forgotten and the word Euclid became synonymous with the science of geometry. The terms *patiganita* and *dhulikarma* were translated into Arabic when the Sanskrit works were rendered into that language. The Arabic equivalents are *ilon-hisab-al-lakt* (the science of calculation, and *hisab-al-ghobar* (calculation on dust) respectively. Numerals in Spain in the 10th century came not through Baghdad and some of them differ considerably but these were also called the dust numerals (Huruf-al-gol).

Before A.D. 500 mathematics and astronomy were mainly related to Vedic rites and were seldom cultivated for the sake of the science itself. The important work on astronomy and mathematics before A. D. 500 besides the Vedic literature and the sutras was Surya Siddhanta but after A.D. 500 these subjects began to receive real scientific treatment. The Surya Siddhanta though not so scientific and well-developed was considered to be a standard work on mathematics in other countries.

Interesting relics of Hindu observatories are to be seen at Delhi, Jaipur, Ujjain and Benares. (see p. 209). But the main centres in ancient India were at Patna and Ujjain; about 75 miles from Poona are to be found the Nanaghat inscriptions with early numerals and it was at Mysore that Mahaviracharya lived. The earliest mathematician on truly scientific basis was Aryabhattya 1 (c 499 A.D.) whose work is known as *Aryabhattiya* composed at Patna when the author was 23 years of age. It consists of a collection of astronomical tables, a note on arithmetic, the Kalakriya, on time and its measure and on sphere. The arithmetic carries numeration by

tens as far as 10^{9}, treats of plane and solid numbers and gives a rule for square root. His work shows a knowledge of the quadratic equation and of the indeterminate linear equation. It contains one of the earliest attempts at a general solution of a linear indeterminate equation by the method of continued fractions.

Aryabhatta knew the theory of the revolution of the earth on its own axis and the true cause of solar and lunar eclipses. "As a person in a vessel while moving forward, sees an immovable object moving backward, in the same manner do the stars though immovable, seem to move daily." Alberuni alludes to Aryabhatta and explains that the earth revolves, the heaven does not turn round as it appears to our eyes. Further, his calculation of the earth's circumference—3,300 yojanas of four krosas each (i.e., roughly 26,400 miles) is not wide of the mark. Of the astronomers, two appear with the name of Varahamihira, one living in c 200 and the other in c 505. The latter is the most celebrated, being the chief of the nine gems at the court of Vikramaditya, according to tradition. He wrote several works, of which the *Panchasiddhantika* treating of astrology and astronomy, is the best known. It includes the computation necessary for finding the position of a planet, shows advanced state of mathematical astronomy but is chiefly valuable in history of mathematics because of the description of the five treatises which had been written just before his time. Thus he includes the Greek and the Roman system and urges the Indians to appreciate the work of the Greeks. It is, therefore, clear that the Greek system of astronomy in particular was fairly well known and had considerably influenced the Hindu system. Two of his works were translated into Arabic by Alberuni. (c. 1000 A. D.)

Brahmagupta was the most prominent Hindu mathematician in the 7th century. At the age of 30 he wrote an astronomical work in 21 chapters including special chapters on arithmetic and algebra. His arithmetic includes integers, fractions, progressions, barter, rule of three, simple interest, the mensuration of plane figures, problems on volumes and on shadow reckoning (a primitive plane trigonometry applied by him to the Sundial). Brahmagupta, as quoted by Alberuni says "All heavy things fall down to the earth by a law of nature, for it is the nature of the earth to attract and to keep things, as it is the nature of water to flow, that of fire to burn and that of the wind to set in motion." Varahamihira also says, "The earth attracts that which is upon her." Thus two very epoch-making laws in science, the law of revolution of the earth centering the sun and the law of gravitation, the former attributed to Galileo and the other to Newton, were known and understood by the Hindus in ancient India. But the Hindu scientists did not give clear proof of their conclusions and even if they gave, no authentic and reliable record was kept. Nor did the Hindu scientists push their experiments and observations to the final point. This is true in ancient as well as in modern India. There is a tradition that the late Sir Jagadish Chandra Bose knew and actually gave a demonstration of the working of the wireless system but he did not proceed farther. The credit of discovering the wireless went to the Italian scientist, Marconi. Brahmagupta has applied algebra to astronomical calculations and has a chapter on quadratic equations, the rule for solving an equation of the type $x^2+px-q=0$ being substantially a statement of the formula $x = \frac{-p+\sqrt{p^2+4q}}{2}$

Some examples illustrating his rule may be given: (a) "On the top of a hill live the ascetics, one of them being a wizard, travels through the air. Springing from the summit of the mountain he ascends to a certain elevation and proceeds by an oblique distant diagonally to a neighbouring town. The other walking down the hill, goes by land to the same town. Their journeys are equal. I desire to know the distance of the town from the hill and how high the wizard rose."

(b) "A bamboo 18 cubits high was broken by the wind; its top touched the ground 6 cubits from the root. Tell the lengths of the segments of the bamboo."

Regarding indeterminate equations we have seen that Aryabhatta had already considered the question of the integral solutions of $ax + by = c$, but Brahmagupta actually gave as its results,

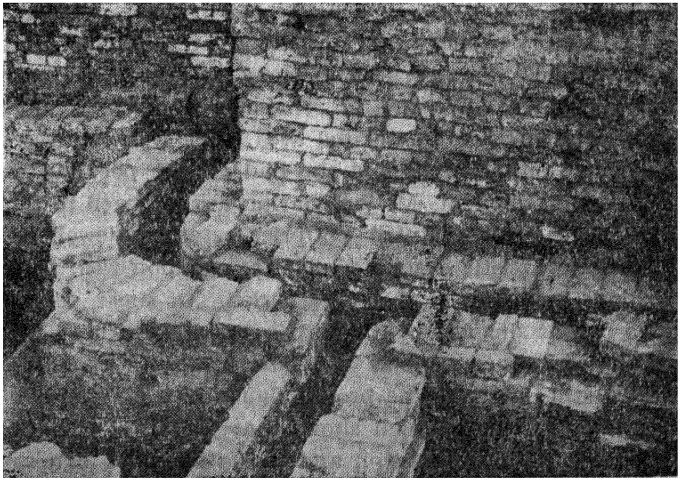
$$x = \pm cq - bt,$$
$$y = \mp cp - at,$$

when it is zero or any integer and p/q is the penultimate convergent of a/b. He also considered the so called Pell Equation of the form $Du^2 + 1 = t^2$ but the solution was first effected by Bhaskaracharya in the 12th century.

After Brahmagupta comes Mahavira (c 850) in Mysore. He wrote the *Ganitasarasamgraha.*

The first Hindu to grasp a complete arithmetic of zero was Bhaskara. His arithmetic of zero is almost complete. The rule relating to division by zero was not yet clearly grasped. The most noteworthy feature in Mahavira's treatment of fractions is that relating to the inverted divisor, the rule being set forth as follows: After making the denominator of the divisor its numerator (and

vice versa) its operation to be conducted there as is in the multiplication (of fractions). Every school student knows the method by which one fraction is divided by another fraction. For example, if $\frac{1}{2}$ is to be divided by $\frac{1}{3}$ (i.e., $\frac{1}{2} \div \frac{1}{3}$ we proceed as follows $\frac{1}{2} \times \frac{3}{1} = \frac{3}{2}$ i.e., $1\frac{1}{2}$. This method was invented by Mahavira in India in the 9th century. It is curious that this device first used in India in the 9th century, became a lost art until again adopted in Europe in the 16th century. The next important mathematician is Sridhara, born in 991 and then comes Bhaskara. (1114 to 1185).



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DRAINAGE SYSTEM OF MOHENJODARO

(See p. 40)

CHAPTER XV

ART AND ARCHITECTURE

Mohenjodaro and the Indo-Sumerian period of Indian art. The Indo-Iranian period. Condition of art before the Mauryas. Extent of Persian and Greek influence. Early specimens mostly on perishable materials. Some motifs. Buildings and architecture before the Mauryas. Maurya art and architecture—stupa—pillar—halls. The Dhameka stupa at Sarnath and the Sanchi stupa. The rock-cut temples of western India, Ajanta and Ellora. Asoka pillars. From the Mauryas to the Kushanas—Mathura and Amaravati. The Gandhara school of art. The Gupta art—the classical art of India.

The history of art in ancient India can be divided into several periods. The earliest one may be called the Indo-Sumerian period. We are to remember that in ancient times India was not an isolated area. She was connected with her adjoining areas and she had certain peculiarities in common with them. Mohenjodarian art belonged to this period. The seals, painted potteries, statues, jewelleries etc., contain artistic designs which are common with similar things in Sumer of the same period. Of these, certain things can be singled out for purposes of illustration. The swastika and other symbols of mystic value have persisted and are still current. The bronze figure found at Mohenjodaro is a specimen which shows that the artist was not a beginner in his profession and in no sense we can say that art was in its infancy in that period. After that comes the second period which may be called Indo-Iranian. There is obviously a big gap between these two periods and the links connecting both are virtually missing. Art

under the Mauryas betrays some Persian influence. The innumerable stupas, pillars with capital, particularly the Persian bell-shaped capital, the figures of lion, the Yaksha and the Yakshini figures bear some resemblance to Persian models. As practically no work of art, architecture, sculpture and painting previous to the Maurya period are available and as the works of art of this period now extant are so superior in workmanship and conception, it was formerly believed that real artistic production in India begins with the Mauryas and that was due to the Persian and Greek influence. Although there is no doubt that India's contact with Persia and through Persia with Greece was much closer than it is generally supposed and that foreign artists were used by the Maurya emperors for building their palaces and monuments, there is no justification for holding that India simply borrowed them from Greece and that these were the products of foreign artists. The fact is that the materials on which formerly the works of art were produced were extremely perishable things and hence the pre-Maurya specimens are lost and from the Maurya period the artists began to work on better materials.

In artistic production there is some constituent feature or dominant idea. It is called the motif. In India from very ancient times certain trees, plants, animals and flowers came to be associated with the Indian mind and there exists a tender feeling of peculiar delicacy with it and so in all her artistic productions we find these figures. This is no peculiarity of the Indians. To know India's art one should learn what feelings are excited in a Hindu mind when a Hindu sees a particular thing e.g., the lotus. (see p. 194). The cow, the elephant, the deer, the snake, the crocodile etc., are to an Indian what the horse is to an Arab, the dog to an English man; the lotus is to an Indian

what the rose is to a Persian or the lily is to an Englishman.

"A motif was not necessarily invented or borrowed at the date of its first appearance in permanent material; indeed a first appearance in stone is almost tantamount to proof of an earlier currency in wood. No one in fact doubts the existence of a pre-Maurya Indian art of sculpture and architecture in wood, clay modelling, ivory carving, cutting of hard stone, glass, textiles and metal works and this art must have embraced an extensive ensemble of decorative motifs, ranging from lines and dots incised or painted on earthern pots and chank bangles to representations of the human figure. To suppose that the whole group of motifs of western Asiatic aspect was introduced by Asoka's Persian craftsmen en bloc would then necessarily imply a belief in the existence of a lost pre-Maurya art of some strange and unknown kind; it would be fantastic to postulate the existence of any such art and in view of our knowledge of the continuous preservation of motifs and the conservative character of Indian decorative art, it would be impossible to believe that it could have vanished without trace."

All this amounts to this, that the themes and motifs of pre-Maurya art cannot have widely differed from those of the Mauryas and Sungas; fantastic animals, palmettes, rosettes and bell capitals, must have been common elements of the craftsman's repertory under the Nandas as in the time of Asoka. India in centuries and perhaps millennium B.C. was an integral part of an "Ancient East" that extended from the Mediterranean to the Ganges Valley. In this ancient world there prevailed a common type of culture, which may well have had a continuous history extending upwards from the Stone age. Some of

its most widely distributed decorative or more accurately speaking, symbolic motifs such as the spiral, and swastika with certain phases of its mythology such as the cults of Sun and Fire, may go back to the remote past; more sophisticated motifs and technical discoveries may have originated in any part of the area; a majority perhaps in Southern Mesopotamia; others in India or in Egypt.

Buildings and architecture were made of wood just as they are still in Burma, Siam, China and Japan. Best teak wood was then available in India just as they are still plentiful in Burma and Siam, and buildings were constructed with wood. Figures and designs were first carved on them just as they are still done in India and in the East. Not only wood but clay, terra cotta, ivory, textiles etc., were also used as materials and in course of time these were completely destroyed. From Asoka's time the craftsman began to use stone and metal and this was a Persian influence. But it is clear that local artists must have used their chisels for a pretty long time and had assimilated and adopted the new technique so completely that by the time of the Mauryas this art became thoroughly Indian and craftsmen on a large scale were locally available.

Of the Maurya art we may mention three leading groups. One is the *stupa* or tope. The origin of such a tope may be the mound erected over the burial place of some person. Usually to commemorate some event of Buddha's life or teaching at some place or over the relic of sòme article or the dead body of some of his disciples, a tope used to be constructed. Asoka is credited with the construction of a large number of topes. One such tope is at Sanchi in modern Bhopal and another called the Dhameka stupa at Sarnath, six miles from Benares where Buddha first preached his sermon in the Deer Park. The

Sanchi tope is a solid cupola of burnt brick and stone masonry. Originally it was a hemispherical dome but gradually it was raised on a high drum or tier of drums and gradually converted into a tower. The diameter at the plinth is 121½ ft., the height about 77½ ft. and the stone railing is a massive structure 11 feet high. The tope has four gates called *torana* and a stone railing. Originally they were made of wood but at later times stone railings were added with beautiful decorations on them. They contain bas reliefs with figures of dryads, trees etc. The sculpture and architecture of this period, before the rise of the Gandhara school in the Kushana period never contained the figure of Buddha. All of them were constructed to commemorate some events of Buddhism but Buddha is always represented by some symbol—the umbrella, the feet, some flower or the wheel. This shows that the Mahayana school of Buddhism has not yet begun, that Buddha was not yet regarded as God or the Saviour but only as a teacher. The sculpture of Sanchi, Bharhut, Amaravati etc., contains the stories of Buddha's life as told in the Jatakas wholly in pictures and curiously enough though Buddhism is a religion of renunciation and abstinence the artists portray life full of human sympathy—women suckling babies, doing domestic work or some such thing.

The second group consists of Buddhist *chaityas* or halls. Originally the chaitya was a meeting place. In India in those times there were meeting places of village elders for administrative, religious or business purposes. These were made of clay or wood which the architects of the chaityas must have had before them as model. When larger number of monks and nuns began to join the Order the need for constructing big houses to accommodate them must have been felt. Though made of stone these chaityas could not stand the ravages of time and do not exist any

where except as ruins. Today in some of the ancient sites the plinth and the floor of such chaityas can be seen. Work of architecture on rock-cut caves mostly in western India, however, survives. In the rock-cut caves at Nasik, Ellora, Ajanta, Karli, etc., the chaityas still exist as they were, when constructed thousands of years ago. We have described elsewhere the rock-cut chaitya at Karli constructed some time from the first century B. C. to the first century A. D. A survey of such chaityas is important for they show that Christian monasteries took the Buddhist Indian chaityas as model for their cathedrals. (see p. 157)

The third group consists of pillars. Asoka is credited with erecting some 8,000 such pillars. Sometimes these pillars were erected by the side of some stupa or monastery and sometimes one stands alone in some place commemorating some event of Buddhism. Some 30 such monolithic pillars of Asoka still exist in more or less perfect condition. A pillar very often contains some inscription. The Asoka pillar at Allahabad contains one inscription by Asoka explaining the peaceful teaching of the Master and another inscription by Samudragupta some 500 years after, recording his military conquests. The Lauriya Nandangarh monument is a shaft of polished stone, 32ft. 9½ inches in height, diminishes from a base diameter of 35½ inches to a diameter of only 22½ inches at the top—proportions which render it the most graceful of all the Asoka columns. The cutting and polishing of such a huge stone is brilliantly done and shows that it became an almost perfect art which is now lost to the world. To cut a single piece of stone some 50 tons in weight out of a rock, to polish it so smoothly that people for generations are led to think that it is a metal, transport it hundreds of miles away and then erect it so that it stands in the same position for thousands of years — all these require wonderful engineering and artistic

skill. V. A. Smith in this connection observes, "The fabrication, conveyance and erection of monoliths of such enormous size — the heaviest weighing about 50 tons — are proof that the engineers and the stone-cutters of Asoka's age were not inferior in skill and resources of any time and country." At the top of such a pillar is a monolithic capital like the shaft itself and it comprises three principal elements, namely a Persepolitan bell, the abacus and a crowning sculpture in the round. The crowning sculpture is occasionally a sacred symbol such as a wheel or more commonly a symbolical animal or group of animals most often one or other of four animals namely the elephant, the horse, the bull, and the lion. The magnificent Sarnath capital discovered in 1905, unquestionably the best extant specimen of Asokan sculpture was executed late in his reign between 242 B. C. to 232 B. C. The column was erected to mark the spot where Gautama Buddha first "turned the wheel of Law" or in plain English, publicly preached his doctrine. The symbolism of the figures whether in the round or in relief, refers to the commemoration of that event for the benefit of the Church Universal. The four lions standing back to back on the abacus once supported a stone wheel, 2 feet 9 inches in diameter of which only fragments remain. The capital is kept at the Sarnath museum. The wheel of the capital has become famous as it is incorporated in the Indian National flag adopted after her independence in 1947. The abacus (the circular slab stone on which the capital stands) was formerly believed to be a Persepolitan bell; now experts think that it is a lotus with turned down petals. The space between the capital and the abacus contained various decorations. Sometimes it is a row of sacred geese in quiet low relief. Sometimes it is an elegant design of the lotus and palmette or honey suckle. "Whatever the device selected it is invariably well executed

and chiselled with that extra-ordinary precision and accuracy with characterise the workmanship of the Maurya age and have never been surpassed in Athens or elsewhere."

THE LION CAPITAL OF SARNATH

This 3rd century B.C. Asokan pillar with its Lion Capital, now in the Sarnath Museum, was discovered in 1905 and is one of the best of its kind. At the top of the monolithic pillar was this monolithic capital like the shaft itself and it comprises three elements, (1) the Persepolitan bell (2) the abacus, and (3) the crowning sculpture—the four lions standing back to back. *(Further details at p. 244.)*

The fourth group consists of caves cut out of rocks. Such caves of Asoka's time are not many but from the 2nd century B.C. onwards it became an art by itself

particularly in Western India where the rocks are particularly suitable for such work. In 1819 a British general under the East India Company while leading an army against the Maharattas lay encamped in the hills in Nizam's territory in Hyderabad some 36 miles from Jalgaon, an important junction on the main G. I. P. Rly. line from Bombay to Calcutta. He was fond of hunting wild animals and noticed from a hill top some caves and expected animals to come out. It was discovered that some 28 caves well-built and excellently decorated in the horse-shoe shape lay at the bottom of one solid piece of hill made of lava discharged out of volcanic eruption in some geological period. The place is called Ajanta and on the other side of the hill some 80 miles away is Ellora. The Government of India upto 1914 and afterwards the Nizam's Government began to take interest and these have become interesting sites attracting tourists from all over the world. All the caves were not constructed at one time. From the second century B. C. onwards for some one thousand years different caves were cut and decorated. The doorway of each cave is usually of horse-shoe shape and all caves together also have the horse-shoe shape. Some arrangement is made for light to enter but generally the interior is dark. At present the archaeological department of the Nizam's Government has provided electric light and there is also a bus service from Jalgaon for the convenience of the tourists. The cave may be a chaitya hall with the figure of Buddha at one end and with decorated pillars to support the roof but all are simply rock cut and not made of stones. The figure of Buddha was not constructed outside and then placed inside nor are the pillars supporting the roof if such a thing can be called a roof at all, made of bricks or stones but this has been formed

by cutting the interior of the hill. Besides, in some of the caves the walls had been plastered with lime, husk, cowdung etc., and excellent wall-paintings drawn. Coomaraswamy describes the technique of the painting thus: "The surface of the hard porous rock was spread over with a layer of clay, cowdung and powdered rock, sometimes mixed with rice husks to a thickness of from 3 to 20 m.m. Over this was laid a thin coat of fine white lime plaster which was kept moist while the colours were applied and afterwards lightly burnished.... The bold freedom of the brush strokes seems to show that all the work was free hand or if any use was made of stencils, freely redrawn. It is difficult to understand how the work can have been done in such dimly lighted halls." Hundreds of years have passed but these pictures with ordinary colour still exist; no atom bomb is likely to destroy them. It appears that Ajanta was a secluded forest-resort for study and meditation and must have been a seat of learning. Buddhist monks must have lived there and when persecution of Buddhists took place they must have left the place in a hurry. Some of the farthest caves show that they were just begun and this gives us some hints as to how they were constructed. To cut the inside of a solid rock in such a way as to produce a temple with pillars and idols is an art by itself and proves the artistic as well as the engineering skill of the architects. The pictures on the wall have also their unique value. These mostly describe Jataka stories and the themes are Buddhistic legends. Regarding the painting one authority on the subject writes, "the outline is in its final state firm, but modulated and realistic and not often like the calligraphic sweeping curves of the Chinese and the Japanese. The drawing is, on the whole like mediaeval

Italian drawing....The artists had a complete command over posture. Their knowledge of the types and positions, gestures and beauties of hands is amazing. Many racial types are rendered; the features are often elaborately studied and of high breeding and one might call it stylistic breeding. In some pictures, considerable impetus of movement of different kinds is well-suggested. Some of the schemes of colour composition are most remarkable and interesting and there is great variety. There is no other really fine portrayal of a dark race by themselves. The quality of the painting varies from sublime to grotesque, from tender and graceful to quite rough and coarse. But most of it has a kind of emphatic passionate force a marked technical skill very difficult to suggest in copies drawn in a slighter medium." From these pictures we get an excellent idea of what the people looked like; we know much of their dress, toilets, fruits, flowers, musical instruments, manners and customs, processions, religious festivals and merry-marking. All are so lifelike and interesting. One woman is seen toileting with a looking glass; one man is seen with stockings and some using musical instruments peculiar to those times. It is impossible for any one who has not seen them with his own eyes to realise how great and solid the paintings in the caves are; how wonderful in their simplicity and religious fervour although in no sense this simplicity is primitive or naive. A more conscious or more sophisticated art could scarcely be imagined. Coomaraswamy writes, "Despite its invariably religious subject-matter this is an art of 'great court charming the mind by their noble routine', adorned with ornaments. The specially religious element is no longer insistent, no longer anti-social, it is manifested in life and in an art that reveals life not in a mood of opposition to spirituality but as an intricate ritual fitted to the consummation of

every perfect experience. Bodhisattva is born by divine right as a prince in a world luxuriously refined. The sorrow of transience no longer poisons life itself; life has become an art. The ultimate meaning of life is not forgotten. Witness the great *Bodhisattva and the Return of Kapilavastu* but a culmination and perfection had been attained in which inner and the outer life are indivisible. It is this psycho-physical identity that determines the quality of Gupta painting as preserved in the Ajanta caves". Ajanta art is genuinely Indian art without any Greek influence. Only very recently this art has come to be appreciated and of late a new school of oriental art has developed which claims to be in direct continuation with the Indian art represented by Ajanta.

The centre of art under the Mauryas was Pataliputra. After the decline of the Mauryas and the Sungas the centre shifted to Mathura. A large number of statues was discovered in that area. And many of them are now kept in the Mathura museum. For a few centuries the plastic art developed under this school and we find some statues of Yaksha, Nagas, Kuvera, etc. As in Brahmanism so in Buddhism some animals and things stood for certain deities. Thus the horse was associated with the sun, the bull with Rudra and Shiva. The wheel was the disc of Vishnu, later on, it became the mark of a *chakravartin*. The disc of gold placed behind the fire altar to represent the Sun may well be the origin of the later *prabha mandala* or *shiraschakra* (nimbus). In Buddhism also the tree, the wheel, the umbrella, the *paduka* etc., stood for Buddha and certain ideas of Buddhism. At first the artists followed this tradition but gradually the rank and file of the disciples of Buddha and the Hindu masses who could little appreciate the abstract religious ideas, were more influenced by the superstitious beliefs then prevalent. Masses of the people

believed in fairies, nymphs, dryads, Apsaras, Yama, the kingdom of heaven and hell and these things came to be associated with the life of Buddha. The followers of Buddha, centuries after Buddha had died, started conceiving of Buddha as God, how he was born again and again in different forms and character in this earth to relieve mankind of impiety, how he had to undergo spiritual trials, how he conquered temptations, his encounter with Satan and his final triumph. A vast mass of myths and legends developed and these formed part of the new Buddhist religion. It went on growing as the new religion spread in different areas inhabited by different people and their local religious ideas came to be absorbed and mixed up with Buddhism. Those who followed the old orthodox school opposed these newer elements in the religion. The old and orthodox group came to be known as the Hinayana school and the new group came to be known as the Mahayana school (see p. 169). The controversy continued with considerable vehemence and a council of Buddhist theologians was held under the patronage of Kanishka. Worship of the images of gods and goddesses which already started and the beginning of which can be noticed in the Mathura school of art, received further stimulus in the North West where under the Kushana empire were many cities inhabited by Asiatic Greeks. In that region at that time Buddhism had a greater following and the nobility including the kings were Buddhists in religion although many of them were Greek or Chinese in culture and upbringing. Worship of the image of Buddha was extremely fashionable and Greek artists produced in stones the figures of Buddha. This application of Greek art on Buddhistic themes came to be known as the Gandhara school of art (from 1st century B. C. to 3rd century A. D.). Plastically the Gandhara art is Greek but the Indian tradition in

style, motif etc., is preserved. A Buddha of the Gandhara art looks like the Apollo and it is said that the Gandhara art means the eastern extension of Greek art and the western extension of Indian art. The Gandhara school, however, did not penetrate into the interior of India. It was more or less confined to the North West and the Punjab and its influence on the future development of art in India, was scarcely noticeable. (see p. 168).

The next period (roughly from A.D. 320 to A.D. 600) in the history of art in India is the Gupta period during which artistic development reached its zenith. In the language of Coomaraswamy, "The outstanding characteristic of the art of India at this period is its classical quality. In the Kushana period the cult of image is still a new and important conception, and there we find, quite naturally magnificent primitives or 'clumsy and unwieldy figures' according to our choice of terms. In the Gupta period the image has taken its place in architecture; becoming necessary, it loses its importance and enters into the general decorative scheme, and in this integration acquires delicacy and repose. At the same time technique is perfected and used as a language without conscious effort, it becomes the medium of conscious and explicit statement of spiritual conceptions; this is equally true of sculpture, painting and the dance. With a new beauty of definition it establishes the classical faith of Indian art, at once serene and energetic, spiritual and voluptuous. The formulae of Indian taste are now definitely crystallised and universally accepted; iconographic types and compositions still variable in the Kushana period, are now standardised in forms whose influence extended far beyond the Ganges Valley and of which influence was felt not only throughout India and Ceylon but far beyond the confines of India proper, surviving to the present day.

"The rich decorative resources of Gupta art are to be understood in terms of its inheritance, indigenous, early Asiatic, Persian and Hellenistic. The Gupta style is unified and natural. Plastically the style is derived from that of Mathura in the Kushana period, by refinement and definition, tendencies destined still later, in the natural course of events, to imply attenuation. Meanwhile Gupta sculpture though less ponderous than the Asian types, is still distinguished by its volume; its energy proceeds from within the form and is static rather than kinetic, a condition that is reversed only in the mediaeval period. In all these respects Gupta art marks the zenith in a perfectly normal cycle of artistic evolution. In India, as elsewhere, we find a succession of primitive, classical, romantic, rococo and finally mechanical forms; the evolution is continuous and often specially in the earlier periods, rapid and whenever our knowledge is adequate, Indian works, like those of other countries can be closely dated on stylistic evidence only."

The Buddha figure in the early Gupta period is fully evolved and this classical type is the main source of all later forms both in and beyond the Indian boundaries. The Gupta type is characterised by its refinement, by a clear delineation and definition of the features by curly hair, absence of *urna*, greater variety of *mudra*, elaborately decorated nimbus, the robe covering one or both shoulders and extremely diaphanous clearly revealing the figure; and by a lotus or lion pedestal, usually with figures of donors. Scarcely any trace of Hellenistic plasticity is apparent.

The leading variations are the colossal standing image from Mathura, the beautiful but less vigorous seated Buddha at Sarnath, the Sultanganj copper image of life size in the Birmingham Museum and the figures in relief at Ajanta caves.

For the next few centuries the development of art was mainly on the Gupta line but in different areas of India, in course of time, it gave rise to different schools of art. After the Moslem conquest mostly in northern India some influence of Moslem art is noticeable. In architecture the pure Indian style flourished in the Deccan. Most buildings in northern India were damaged and destroyed and many

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MOHENJODARO AND THE DRAINAGE SYSTEM

The drain is to let out water and the earthen-ware pot is used as the receptacle for dirty water.

were converted into mosques by the Moslems. But the Indian tradition continued undisturbed in the Madras Presidency and the best Indian architecture is still to be found there. In painting the Indian tradition has been revived in Bengal and some of the best specimens are to be found in this new school of art represented by Nandalal Bose, Abanindranath Tagore and others.

CHAPTER XVI

SYSTEM OF EDUCATION AND SEATS OF LEARNING

Growth of residential universities—Taxila, Ujjain, Benares, Pataliputra, Vikramashila, Valabhi and Nalanda. Yuan Chwang and his description of Nalanda, 7000 inmates—Shilabhadra—strict admission—its system—subjects taught—its influence and reputation throughout Asia.

By the time of the Gupta period the system of education underwent some change. The practice of a *rishi* in his secluded hermitage imparting education to a few pupils which included sons of even the rulers of the kingdom was continued but the requirements of the times demanded some larger institutions. Some great houses of teachers developed in some places and greater specialisation took place. It appears that Taxila which was a flourishing university specialising in medicine now ceased to be so. Possibly after the Hun invasions Taxila could not offer that peaceful atmosphere so necessary for education and hence centres in other areas began to rise into prominence. Ujjain was a centre of mathematics, astronomy etc. The ruins of observatories still exist in that town in Central India. Benares continued to be a great centre of Sanskrit learning specialising in religion and philosophy. But we should remember that religion in India is not theology. It included subjects like grammar, logic, astronomy etc. Anybody who had any new theory to preach was to convince the scholars of Benares first. For learning Sanskrit students used to go to Benares from all corners of India. Other centres of learning included Valabhi in Gujarat, Kanchi in

Madras, Vikramashila, (near modern Bhagalpur) Patali-putra and Nalanda in Bihar. Vikramashila seems to have specialised in logic, grammar and metaphysics and it used to attract a large number of students from Tibet and it has been said, there was attached to this university one special hostel for students coming from Tibet. One Vikramashila scholar Atisha by name later became famous and he did much for the Mahayana Buddhism in Tibet.

But the university of Nalanda surpassed all others in fame. Today Nalanda is a village in Bihar between Gaya and Patna. Once it was a flourishing residential university with big hostels accommodating some seven thousand students and professors. It had a large library containing thousands of manuscripts kept in three big halls called the *Mart of knowledge*. Only the ruins now exist. Fa Hien refers to Nananda only casually and this means that during his time it may not have been fully developed. Gupta rulers had made some donations and Harsha gave the income of one hundred villages for its upkeep. European universities like Oxford and Cambridge grew in the 12th century while in the 7th century Nalanda was one of the largest universities of Asia and Europe. A degree of this university was highly valued. Admission was rather strict. Candidates had to undergo tests of very high standard. Only two or three out of ten could pass those tests. There were pretenders who would style themselves falsely as graduates of the Nalanda University and move in the country earning money and respect. Yuan Chwang who resided in this university for five years and ultimately became some thing like a Vice-Principal, gives a very vivid description of the life and the system of education in this magnificent institution. When in A. D. 629 Yuan Chwang left China for India he was a young man of 26 with a handsome appearance and well-established reputation for

being an eminent scholar. A strong personality with indomitable courage and dogged perseverance he is one of the rarest persons of the world. His master, the Emperor of China refused him passport but nothing daunted, he started secretly from China via Central Asia. From his accounts as well as the accounts left by his predecessor Fa Hien some 250 years back we know a good deal of the oasis kingdoms of Central Asia through which he passed. When Yuan Chwang came to Turfan he was well-received by the king of Turfan and not only that in the interest of knowledge for the people of Turfan, the king would not allow him to leave his country just as the Chinese Emperor on the same consideration refused him passport. The king of Turfan was, however, induced to part with Yuan Chwang who next came to the territory which was then ruled by the Western Turks. Here he met the Turkish Khan who was overwhelmingly impressed by the persuasive eloquence and clear exposition of Mahayana Buddhism. The Khan was practically converted and entreated him not to proceed towards India. A few days after the Khan was assassinated. Had not this taken place the subsequent history of Asia would have been otherwise. At last after untold difficulties and adventures he reached Kashmir where he stayed for two years and mastered Sanskrit and through Sanskrit Indian literature and philosophy. He came to Nalanda where he had academic discussions with the best brains of India. By eloquence and persuasive arguments he could convince his opponents and converted many people including Harsha into a Mahayana Buddhist and travelled throughout the whole of India. After fifteen years he went back to his native country with a large collection of relics, pictures, statues, seeds of flowers and various other articles. The most important part of his collection, however, consisted of 657 Sanskrit manuscripts.

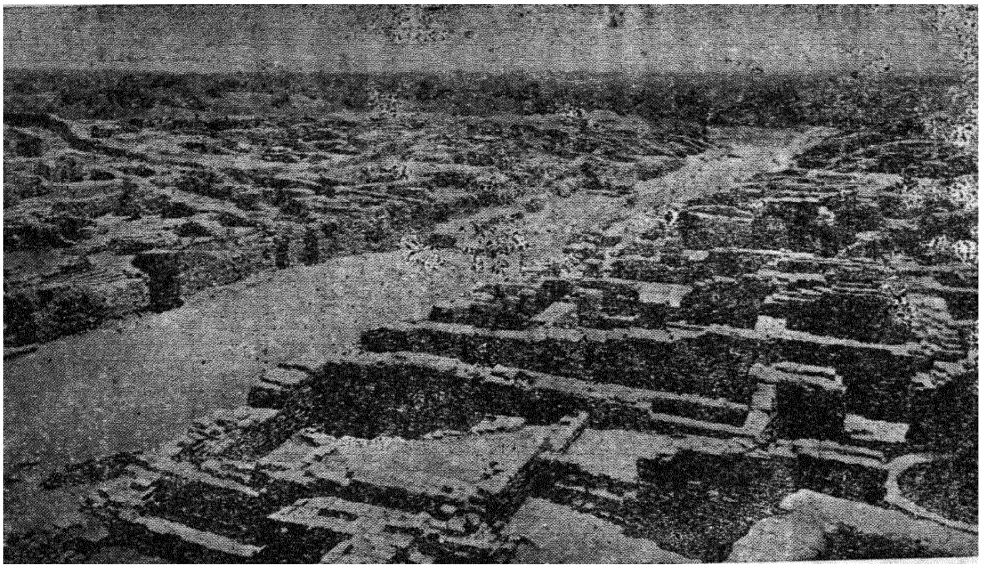
The rest of his life he devoted to the translation and propagation of these books. Requested by the Chinese Emperor he wrote an account of his travels in which he described so impressively the country he visited. The contact with China grew closer and Harsha sent a Brahmin to the Chinese Court and the Chinese Emperor also sent an ambassador to the court of Harsha.

The head of the Nalanda University was Shilabhadra, possibly a Bengali who was widely respected for his vast learning. Though a centre of Buddhist Mahayana school Brahmanical learning was also taught. It specialised in post-graduate studies and attracted students from China, Japan, Tibet and even, it is said, from Korea, Mongolia and Bokhara. Apart from religious and philosophical subjects both Buddhist and Brahmanical, secular and practical subjects were also taught. There was a school of art and a department of architecture; a medical school and agricultural department and dairy farms. Yuan Chwang gives a vivid description of the course of studies in the different classes, the animated talks, heated discussions and lively debates amongst the inmates of the university and the high standard of intellectual life that was maintained here. The system of education may superficially seem to be based on catechism but actually it is not so. At the beginning a boy has to commit to memory a large number of rules of grammar. But he has to apply them intelligently so that at the age of 13 he may completely master Panini and can independently compose Sanskrit prose and verse. After the command over the language is complete he will again commit to memory rules of logic, philosophy etc., and here also he must be able to apply them intelligently. Mere cramming cannot help, because he must be able to stand in debates against his opponents. Yuan Chwang describes occasions where learned men from far and near assembled

and for weeks, took part in the debates. These, therefore, are the real test for correct understanding and quick intelligence. Otherwise graduates of these universities could not have impressed one and all for long. The spread of Indian culture, it has been said, was largely the work of the scholars of Nalanda and other universities.

Besides these universities, the Buddhist monasteries that sprang up throughout the country and were maintained by public donations contained big libraries and enlightened monks who devoted themselves entirely to studies and intellectual pursuits. The Buddhist monasteries had better organisation. Each contained a band of selfless monks who left every thing except learning and naturally other houses of Brahmin priests could not compete with them as seats of learning. Besides lay donors, the Hindu rulers were fairly generous and catholic to support Buddhist monasteries. It was mainly due to her catholicity and broad-mindedness that India could become the spiritual and educational centre of the whole of Asia. Certainly not by the sword nor by narrow-mindedness and fanaticism could India hold that place of honour and leadership amongst the various people and nations of Asia. The way in which the Chinese Master of Law was honoured throughout India shows that the Indians valued learning more than anything else.

These monasteries and universities flourished for a few centuries. After the Moslem conquest these were deserted and destroyed. The untutored Moslem fanatics from central Asia had nothing but contempt for the idolatrous Indians and they killed the shaven-headed Buddhist monks, rased the monasteries to the ground and burnt the libraries and books. The university of Vikramashila, we know from Moslem sources, was thought to be a fort by the



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RUINS OF MOHENJODARO, THE MOUNT OF THE DEAD

Here lay 5,000 years ago a flourishing city covering more than 250 acres. Seven cities were built here, each on the ruins of the last. Those laid bare by excavation date between 3500 and 2700 B.C.

(See p. 34)

invaders and all the inmates were killed. No pundit was available who could read and inform the Moslem invaders what the books and papers contained. Afterwards when the contents were known, it was discovered that the supposed fort was nothing but a college. The Arab traveller Alberuni writes,

"Mahmud utterly ruined the prosperity of the country and performed those wonderful exploits by which the Hindus became like atoms of dust scattered in all directions and like a tale of old in the mouths of the people. These scattered remains cherish, of course, the most inveterate aversion towards all Moslems. This is the reason why Hindu sciences have retired far away from those parts of the country conquered by us and have fled to places our hand cannot yet reach."

CHAPTER XVII

INDIAN PHILOSOPHY

The orthodox and the heterodox philosophy. Buddhist and Jain philosophy. Charvaka philosophy. The six orthodox schools of Hindu philosophy (1) the agnostic Samkhya of Kapila—its relation with Buddhism. (2) Gautama's logic—sources of knowledge—perception, inference, analogy and valid testimony. Gautama's syllogism compared with Aristotle's. (3) Yoga of Patanjali. (4) Vaisheshika of Kanada. (5) Mimamsa of Jaimini. (6) Vedanta of Badarayana Vyasa. Shankaracharya and his Advaita system. Subtleties of Hindu philosophy — why not popular in Europe.

The origin of philosophical speculations can be traced to the Upanishads but these were mostly the experiences of poets and seers. (see p. 56) They are not always based on reasoning and very often the realisation of one does not agree with the realisation of the other. Later, thinkers began to base their conclusions on logic and reasoning, and from that time Indian philosophy begins. Usually philosophical thoughts are divided into two groups—the orthodox or *astika* group which believes in the authority of the Vedas and the heterodox or *nastika* group which does not believe in the authority of the Vedas. Of the latter the most important is the philosophy of Charvaka but unfortunately as this school does not believe in the existence of God, Soul, heaven, rebirth etc., it failed to attract the masses. This philosophy was not so much developed and we practically know very little of this system except some stray quotations. This philosophy, however, is completely materialistic, based solely on reasoning and unusually

modern. "How can the body once burnt to ashes revive and come back again?" says Charvaka opposing the theory of the transmigration of the soul. Buddhistic philosophy is also heretic. It does not believe in the existence of God and Buddhist *nirvana* leads not to heavenly bliss but to something which is equal to nothingness. This theory is called *shunyavada* and the ablest exponent of this theory was Nagarjuna.

Of the orthodox philosophy there are six schools. The first and foremost is the Samkhya system of Kapila who flourished before Buddha. We do not know if he is connected in any way with Kapilavastu, the birthplace of Buddha but there is a striking similarity between Kapila's system of philosophy and the Buddha's system of religion. Kapila is entirely rational, does not believe in the existence of God and tries to explain creation and existence on purely theoretical basis. We have already seen that Buddha is silent on God. (p. 103). Nirvana is the ultimate end for the realisation of which man has to strive and follow certain rules and the question whether God exists or not does not arise at all. Kapila is not so silent but discusses the question by the way only, while engaged in discussing the nature of sensuous perception. He had been explaining perception as cognition arising from actual contact between senses and their perspective objects. Here Kapila's opponents oppose him saying that this perception does not include the realisation of God by the *yogins*. Kapila does not make a point of vehemently denying the existence of God but simply holds that this God, this, as it is pretended, perceptible God has never been proved to exist at all, has never been established by any of the three legitimate instruments of knowledge. It has been said that Kapila supplied the brain and Buddha, with a compassionate heart which has few parallels, gave life to the system and thus it became

a living force. There is, however, fundamental difference between the two also. Kapila says that spirit and matter are eternal while Buddha says that nothing is eternal.

The *nyaya* system of Gautama is essentially logical. The distinction between logic and metaphysics is not wide and discussions of one involve discussions of the other. In this sense nyaya is both logic and metaphysics. Just as today logic or the science of reasoning forms the basis of all scientific discussions, similarly nyaya was also the basis of all philosophical discussions. In ancient India Gautama's nyaya did what Aristotle's logic does now in Europe until very recently. According to Gautama's nyaya the sources of knowledge are (1) perception, (2) inference, (3) analogy, and (4) valid testimony. A syllogism of nyaya is put thus,

(1) The hill is fiery.

(2) For it smokes.

(3) Whatever smokes is fiery; as in a kitchen.

(4) The hill is smoking.

(5) Therefore, the hill is fiery.

The syllogism consists of five parts: (1) the proposition, (2) the reason, (3) the instance, (4) the application of the reason, and (5) the conclusion. If the first two or the last two are omitted it becomes a perfect syllogism of Aristotle viz.

(1) All men are mortal.

(2) All kings are men.

(3) Therefore, all kings are mortal.

At a later stage different schools of nyaya developed, of which the Bengal school at Navadwip became very famous.

The *yoga* system of Patanjali is less known. This Patanjali is different from the Patanjali who wrote his great commentary on the grammar of Panini. The yoga system is essentially a mental discipline for spiritual practices and Patanjali has dealt with the theoretical side while the system is actually to be practised on the advice and guidance of a spiritual preceptor who actually knows them. There are different stages of the mind and the final truth cannot be realised by reasoning alone. The waking mind alone can proceed on the basis of cold reasoning and speculation but there are other states of the mind, e.g., dream, dreamless sleep etc. Those states of the mind have also to be studied and certain spiritual experiences can only be realised when the mind is raised to a higher level of consciousness. In Europe and America some Indians by demonstrating certain yogic practices before the ignorant and credulous public have created the impression that the yoga system is like magic and by the training of the body and the mind wonders and miracles can be performed.

We do not know if there is anybody in India who can really perform the exercises. Even if it is known by some genuine yogis the knowledge of this system is transmitted from preceptor to disciple in absolute secrecy and nothing can be definitely known. It is doubtful to what extent the black arts of hypnotism, psychic powers etc., can be traced to the yoga system of Patanjali.

Patanjali's Yoga sutra is divided into four books. The first deals with the explanation of the form and aim of *Yoga* and *Samadhi* or meditation and spiritual freedom. The second book explains the means of arriving at this absorption. The third gives an account of the supernatural power that can be obtained by meditation and ascetic exercises. The fourth book explains *Kaivalya* or spiritual

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salvation which is the highest object of all these exercises of concentration of thought and of deep absorption and ecstasy. Patanjali begins with the proposition *Yogas chitta vritti nirodhah* i.e., Yoga is the effort of restraining the activities or distractions of our thoughts. The human mind has to be trained, as otherwise, it would soon be carried away by the torrents of life; the impressions, senses and all the cares and troubles of everyday life would return if there were no means of making the mind as firm as rock. This steadying of the mind is Yoga and in order to help the Yogin to do it, some physical exercises including restraining of thought by control over breathing, are prescribed. By some of these exercises, it is said, the Yogin gets some supernatural powers and can do miracles. This, however, is a branch of knowledge which is still unexplored. For a true Yogin they are only the means to an end and not the end itself. In modern times, some people practise these physio-psychological experiments and startle the world but in most cases, they are frauds and hence the science of Yoga itself has earned a bad name. But as Max Mueller observes "they are honest in their statements as to the discipline that can be applied to the mind through the body and if they could be proved to have been mistaken in their observation, their illusions do not seem to me to have been mere frauds at least in the days of Patanjali." Patanjali gives an account of the principal acts and functions of mind and shows how all these acts and functions are to be controlled and suppressed by Yogic exercises.

It is clear that all these are means to an end and there can be no doubt that they proved efficacious but as so often happens, the means have encroached on the aims to such an extent that Yoga has often been understood to consist in these outward efforts rather than in that concentration of thought which they were meant to produce and which

was to lead to salvation or spiritual freedom. Yoga is theistic. It believes in God.

The *Vaisheshika* system of Kanada, so called because it deals with the visheshas or differences of objects and their atoms. It deals with positive science and analyses the objective world. Material substances, according to Kanada, are primarily atoms; secondarily aggregates. Let us take the smallest perceptible substance—the mote that we see in the sunbeam. It is a substance and as such is composed of what are still smaller and in this way the smallest earthly substance is conceived of. The smallest conceivable thing has no magnitude and is called the atom. The atom is simple and uncompound, else the series would be endless, and were it pursued indefinitely there would be no difference of magnitude between a mustard seed and a mountain; a goat and an elephant each alike containing an infinity of particles. Thus aggregates of earthly atoms give rise to earth; aggregates of acqueous atoms to water, from luminous atoms fire and so on. Kanada thus believes in the atomic theory of creation. Light and heat, again, according to Kanada are only different forms of the same essential substance. The conception of the atom and the atomic creation of the world, we find for the first time in this school of philosophy.

The *mimamsa* of Jaimini aims at systematic exposition of the ritualistic texts and sacrificial ceremonies. At a later stage Kumarila-Bhtta wrote a commentary on mimamsa and tried to revive the ancient Vedic sacrifices when they became out of fashion. But the most important of all the systems of philosophy is Vedanta which exercises the widest influence on the Hindu society. The Vedanta system is enshrined in the *Brahmasutras* of Badarayana Vyasa. It tries to harmonise all the conflicting ideas of the

Upanishads whose authority it accepts as final. It does not embody the individual opinion based on the experiences of different seers but it builds up one coherent and harmonious system and calls it Vedanta which literally means *the end of the Vedas*. The greatest exponent of this system is Shankaracharya, a Brahmin from Malabar who wrote a commentary on the Brahmasutras as well as on all the important Upanishads and the Gita and established what is known as the *mayavada* or the Advaita philosophy. The central idea of this philosophy is that there is only one Reality that exists, other phenomena that we see in this world are *maya* or illusion. It is ignorance and the absence of true knowledge that one does not realise his real self. There is no distinction between the self and the Absolute. Both are the one and the same thing. Only ignorance creates an illusion and the two look like separate entities. Shankara was an out-and-out monist. According to his philosophy one Being exists which is pure knowledge and pure bliss. No separate "I" exists apart from the Absolute; no god exists apart from the all inclusive, all-pervasive One who has no form, no shape and is not bound by any limit. When a man sees things in a dream, so long the dream lasts, those things relatively exist but soon as the dream is over and the man awakes, the dream vanishes. Dreams, therefore, have no real existence; they are unreal in the absolute sense. Absolute Reality dawns when ignorance is removed and knowledge awakens. The individual self and the Atman or Brahman or the all-inclusive Soul become one and the same. The Vedantist proceeds by the negative system. Things of this world cannot be proved as existing. This does not exist, that does not exist and in this way *negatively* it can be proved that nothing exists. What ultimately exists is the ultimate and final one Being. Here possibly philosophy ends. The next stage is one of not

reasoning and argument but realisation. By proper training of the mind whose level of consciousness is raised to the highest point the state of pure Bliss is reached and Godhood realised.

All this superficially may appear to be ridiculous and nonsense. So is Hegelian philosophy. But it is difficult not to appreciate the logic of the arguments. The conclusion is purely logical not depending on belief and authority. Finally, nothing is taken for granted. The Bliss has to be experienced. The final test and the last word on the subject is, however, actual experience and personal realisation.

Shankara was not only the greatest abstract thinker that the world has ever produced, he was also an able organiser and practical man of affairs. At the age of 8 according to tradition, he started mastering knowledge and at 12 started writing. At 32 he died. During this short interval he moved from one corner of India to another, discussed and debated with scholars and was the greatest single force in fighting against Buddhism which ultimately left the soil of its origin. He set up four monasteries in the four corners of India viz., (1) Sringeri in Mysore, (2) Puri in Orissa, (3) Dwarka in Kathiawar, and (4) Kedarnath in the Himalayas where he died.

Indian philosophy is extremely subtle and has reached a level some one thousand years ago not surpassed by any other country. European scholars to whom evidence of India's past excellence in other material aspects of life is generally not available seldom believe that India was ever civilised before the English came. But today, thanks to the labours of certain European scholars, mostly German, the achievement of the Hindus in abstract and speculative thinking as is seen in her philosophy, is appreciated. The

reason, however, why Indian philosophical thoughts have not become popular is that in most cases the Indian thoughts are placed before European readers through translations and it is extremely difficulty to translate correctly the Sanskrit terms and expressions which after being used for hundreds of years bear meanings which cannot be adequately expressed through translations. The second difficulty is the difficulty of presentation. Indian philosophical thoughts cannot be placed in a style that will be attractive to European readers. Those Indians who really know Indian philosophy are familiar with the Indian style of presentation. Even when some rare Indians who know and understand both the Indian and European systems of philosophy present the Indian system in the European way much that is purely Indian is lost. Maya is translated as illusion as there is no better word for it but actually the word illusion does not exactly convey the whole meaning of the Sanskrit word maya. The same is the difficulty when English words and expressions are translated into the vernacular languages of India. Rabindranath Tagore cited one instane and showed that no Indian word can adequately convey the import of the word *noble* in the sentence *the horse is a noble animal.* To call the horse a noble animal is something which we do not understand and hence in our language we cannot exactly translate it.

CHAPTER XVIII

MEDICINE, CHEMISTRY AND OTHER SCIENCES

Works on the science of medicine—Charaka, Sushruta and Nagarjuna. A Hindu court physician of Alexander the Great. Taxila as a centre of medical learning. Hindu physician at Bagdad. Internal use of metal, blood-circulation. Surgery—various instruments described—insistence on practical experiments. Inoculation. Itsing's evidence—the eight-limbed Ayurveda. Medical knowledge goes to the Arabs and then to Europe.

The science of medicine is very old and it is recognised as one of the minor Vedas. It is called Ayurveda i.e., the branch of knowledge which deals with long and healthy life. Several names are associated with this science. One is Charaka who is believed to have been the court physician of Kanishka; another is Sushruta who was a surgeon; Dhanwantari was the physician included as one of the nine gems in the court of Chandragupta Vikramaditya. Nothing practically is known of them. One palm-leaf manuscript was discovered some fifty years ago in Central Asia and the manuscript is believed to be a work of the 4th century A.D. It contains a large number of quotations from Charaka and Sushruta. Obviously Charaka was a legendary authority on medicine and when the science of medicine was highly cultivated some author or authors on this subject made a compilation of medical knowledge mainly based on tradition but passed it in the name of Charaka whoever this Charaka may have been. The subject matter is surprisingly modern and practical. Many old sciences are completely lost; many are remembered only in name and attract research scholars only but the science of medicine, the

basis of Charaka is widely practised even now in India and some Ayurvedic preparations have become popular even in Europe and America.

Charaka's work contains a classification of remedies drawn from vegetable, mineral and animal sources. Over two thousand vegetable preparations derived from the roots, bark, leaves, flowers, fruits, seeds or sap of plants and trees are described. Plants according to Charaka are divided into (1) trees having fruit without flowers, (2) trees having flowers as well as fruits, (3) herbs that wither away after fructification, and (4) herbs with spreading stems. One Jain writer, Gunaratna (A. D. 1350) enumerates the following characteristics of plant life: (1) stages of infancy, youth and old age, (2) regular growth, (3) various kinds of movement or action connected with sleep, waking, expansion and contraction in response to touch, also movement towards a support or root, (4) withering on wound of organs, (5) assimilation of blood, (6) growth or decay by assimilation of suitable or unsuitable food, (7) disease, (8) recovery. The same author gives a list of plants that exhibit a phenomenon of sleep and waking.

Regarding animals, Charaka mentions four classes: (1) those born from the uteras or rather placentalia viviparous (no aplacental mammals were known), (2) those born of ovum (egg) comprising fish, reptile and birds, (3) those born of moisture and heat spontaneously or asexually germinated e.g., worms, mosquitoes etc., (4) those born of vegetable organisms. This shows that the knowledge of botany was also fairly developed. The correct time and season for collecting them and the method of preparation and administration are described. Childrens' diseases are discussed and advice on proper feeding and sleep is given. The need for taking care of the teeth, cleaning with the

medicinal stick and rinsing the mouth thoroughly after every meal is prescribed. Diagnosis on the basis of feeling the pulse is the main feature of the Ayurvedic system. It is more or less a question of practice and the experienced Ayurvedic practitioners of India even today have developed a peculiar capacity for examining almost with perfect accuracy the whole system by feeling the pulse of the patient. The idea of blood circulation was understood. Charaka says,

"From that great centre (the heart) emanate the vessels carrying blood into all parts of the body—the element which nourishes the life of all animals and without which it would be extinct."

Sushruta was a surgeon. He insists that a medical practitioner must have actual experimental knowledge on the subject. He says that a candidate without experimental knowledge is a donkey which is conscious of the weight but does not know the contents of the burden. Dissection of dead bodies is essential for thorough knowledge and he says, "No accurate account of any part of the body including even its skin can be rendered without the knowledge of anatomy; hence any one who wishes to acquire a thorough knowledge of anatomy must prepare a dead body and carefully examine all its parts." Beginners should first practise the surgeon's knife on pumpkins and cucumbers and learn how to sew up wounds on pieces of cloth or skin. Major operations are described and these include amputations, grafting, setting of fractures, removal of the foetus and operation of the bladder for removal of gallstone. Some 127 different instruments used for purposes of cutting, inoculation, puncturing, probing, and sounding are described. Cutting instruments should be bright, handsome, polished metal and sharp enough to divide even a hair.

During the Vedic period animals were sacrificed and the Aryans used the flesh of animals as food. Dead bodies of animals were cut and different parts of the body examined and there was no prejudice against dissection. In the Vedic times we have the beginnings of the science of anatomy and physiology. It was only at a later period that animal sacrifices and meat-eating was prohibited. At a still later period the higher caste Hindus were forbidden to dissect human or animal bodies. This practically meant a serious handicap for the development of the science of medicine. The prejudice was so strong that when the Calcutta Medical College was started in the thirties of the last century, high caste Hindu students were not forthcoming. The prejudice today has, however, disappeared.

When Alexander the Great invaded India he had Indian physicians in his camp and when he returned an Indian physician accompanied him as the court physician. Taxila was then, famous for medical learning. Her leadership in the science of medicine continued for several centuries but when non-killing of animals and vegetarianism dominated Indian life and when dissection and practice of surgery were prohibited for the upper classes, decline set in till at last we find surgery today is completely forgotten except for some lower caste Hindus practising it in a very crude form.

The Buddhists and the Jains, however, contributed in other ways towards the progress of the science of medicine. Hospitals for men and women as well as Pinjrapole i.e., hospital and asylum for old and disabled animals were set up and maintained sometimes by the state and sometimes by philanthropic persons. Fa Hien describes one hospital at Pataliputra and that possibly was the earliest public hospital maintained by the state in the world. The government for war purposes had to maintain a large number

of horses and elephants. In course of time horse-breeding and elephant-taming became a science by itself and the government had a veterinary department for the treatment of diseases of these animals. In the university of Nalanda there was a department of medicine referred to by Yuan Chwang who also speaks of Nagarjuna, the famous Indian alchemist whose fame spread from Arabia to Indo-China. Alchemy, chemistry and medicine were allied sciences and chemistry was the basis for medicinal preparations in most cases. Nagarjuna is said to have discovered the process of distillation and a method of converting mild alkali into caustic alkali for use as disinfectant. But the most important contribution of India is the use of metal as opposed to herbs internally for curing certain diseases. Nagarjuna prescribes one preparation of mercury for internal use which is widely adopted in India and now manufactured on a mass scale by some German chemists. In Europe mercury was first prescribed by one German doctor in the 16th century and the prejudice was so strong that a hue and cry was raised against such an unorthodox treatment. In India not only mercury but iron and arsenic were also used internally as medicine.

Itsing, another Chinese traveller in A. D. 673 describes one medical man who was then a living authority on the subject. Based on the traditional authority of Charaka whose work comprised one hundred chapters of one thousand stanzas each, one Vagbhata had summarised them into eight chapters, since when the science is known as "eight limbed science of medicine" (*astanga ayurveda*). It discussed treatment of sores, facial disorders including eye, ear and nose troubles, bodily ailments excluding the head, mental diseases, children's diseases, antidotes against poison, certain methods for lengthening life and general rules of preventive hygiene and good health.

The principle of inoculation was understood and practised though such a practice will be considered as crude according to modern 20th century standard. A mild form of cow-pox is injected in the body and the anti-body is created in the blood which develops the capacity to resist small-pox. A thread is drenched into the pustule of a cow infected with small-pox and then the drenched thread is run through a needle which is drawn between the skin and flesh of a child's upper arm. Thus an easy eruption is ensured and the child becomes immune. The Arabs learnt this practice and through the Arabs the Turks and the English knew it. When the Arabs overran Spain Arabic knowledge spread in Spain and thus partly through Arabia, partly through Alexandria and partly through Turkey the knowledge reached Europe.

The Arab author Serapion mentions Charaka by name as *Xarch*. Another Arab writer, Avicenna quotes him as Scirak while Ahazes who was prior to Avicenna calls him *Scarac*. We also know that Harun-al-Rashid of Baghdad had two Hindu physicians known in Arabic records as Mankah and Saleh. These are, therefore, the channels through which the Indian knowledge spread.

To acquire knowledge of these sciences from the Hindus who were and still are so conservative was no easy task for the Arabs and it will be interesting to note what Alberuni, the famous Arab traveller writes on this subject.

"They (the Hindus) are by nature niggardly in communicating that which they know and they take the greatest possible care to withold it from men of another caste among their own people, still much more, of course, from any foreigner. According to their belief, there is no other country on earth but theirs, no other race of men but theirs and no created being besides them have any

knowledge of science whatever. Their haughtiness is such that if you call them of any science or scholar in Khorasan or Parsis, they will think you to be both an ignoramus or a liar. If they travelled and mixed with other nations they would soon change their mind, for their ancestors were not as narrow-minded as the present generation is."

Alberuni's observations are as true then as today.

The practice of medicine and surgery was essentially an art. In course of time when the caste system became extremely rigid and the outlook of life conservative, this knowledge like others came to be restricted to some particular castes or families. Instead of being written down into books and instead of giving it a wide circulation this art was taught from preceptor to disciple, in most cases from father to son and in some cases the knowledge died along with the death of an eminent physician who possibly had no son capable of learning the trade from his father. In this way many practical and extremely useful arts are lost in India and today, we know only through some references in ancient literature or from the accounts left by some foreign travellers. However, if we compare the progress of medicine in India and Europe we find that only in the course of the last two or three hundred years Europe has gone ahead. Upto A.D. 1500 Indian doctors were definitely superior to European doctors.

The copper Buddha of Sultangunj (see p 276) weighing nearly a ton, is a good evidence of Indian proficiency in metallurgy. Still stronger testimony to that skill is borne by the celebrated Iron Pillar of Delhi. The length of the pillar is 23 feet and 8 inches, weighing more than six tons of malleable iron of 7.66 specific gravity. For 1500 years it stands fully exposed without any oxidation. Even

now, there are few laboratories in the world that can manufacture such iron and few foundries in the world where such a mass of metal can be turned out.

SULTANGUNJ COPPER BUDDHA (GUPTA ART)

This unique copper colossus of Buddha, about 7½ feet high and weighing about a ton, now in the Burmingham Museum is an evidence of Indian proficiency in metallurgy and engineering. It is difficult to imagine how such products were manufactured, transported and installed in those times. There are few foundries in the world even now that can turn out such a mass of metal.

CHAPTER XIX

INDIAN CULTURE MOVES NORTHWARDS

The North West of India—communication with Afghanistan, Tibet, Central Asia, Russia and China. The civilization of Sinkiang a thousand years ago. Discovery of Sir A. Stein. Buddhism goes to China from Khotan-Kasyapa Matanga and Gobharana—the first Buddhist preachers in China. Dharmaraksha and Kumarajiva. Bodhidharma goes by the sea-route to Canton and establishes the Dhyani sect of Buddhism. Tibet—the Tantric variety of Buddhism—the Tibetan script and grammar of Sambhota. Tibet and Nalanda scholars. Nepal—stronghold of the old and orthodox Hinduism after the Moslem conquest. Both Hinduism and Buddhism live side by side. Art in Nepal, Tibet and Central Asia. No vegetarian food in these countries. Beef used in China and Japan.

The North West of India has a strategic position. The whole area contains some rugged mountains, mostly barren and less habitable. Communication with the outside world is extremely difficult except through some famous mountain passes. In ancient times, however, these passes were regularly used. Camels were the only animals which could be used for travelling in these mountainous deserts and long caravans with a large number of camels carrying merchandise used to pass through them. On one side of this North West Frontier of India is the famous Khyber pass which connects India with Afghanistan which in ancient times formed part of India. On the other side there are passes through the Pamir plateau and the Karakoram mountains. (see map p. 283.) This area connects India with West Tibet and the two Turkistan—Russian and

Chinese. One road leads to China and another goes towards Asia Minor through Kasghar from where another road goes to eastern China. The area surrounded by these two roads, one on the north and the other on the south is called Sinkiang. Nominally it is subordinate to China but the present indication is that sooner or later it will become Russian. Researches have proved that hundreds of years ago this area was inhabited by people who spoke Indo-European dialects. Now it is almost a rainless desert with a very few rivers which carry mountain snows through a little fertile belt of oasis and then practically dry up in salty marshes. The inhabitants are predominantly Turkish-speaking Moslems. Archaeological researches in recent times have revealed that this portion of Central Asia once had a peculiar civilization. In dress and manners it was Iranian. In trade and commerce it was Chinese but in religion, art and culture it was Indian. It is now proved beyond doubt that hundreds of years ago India was the centre from which the civilizing influence radiated and spread in distant lands in the whole of Asia. Accidental discovery of some palm-leaf manuscripts in Indian language and script set people thinking and archaeologists from different countries began to take interest. As it happened in Egypt, here also the dry climate, the severe winter and the shifting sand were helpful in preserving the old relics almost in tact and monasteries, temples and caves were excavated. A large number of manuscripts in birch-bark, palm-leaves, silk, leather, wood, paper etc., were discovered. Also innumerable Buddha statues, paintings and frescoes were cleared. Until recently the oldest manuscript available in India belonged to the 10th and the 11th centuries. Manuscripts of an earlier period are not available in India. It was long supposed that the oldest Sanskrit manuscript in existence was a fragment taken

from China to Japan and now carefully preserved in some Buddhist temple. But one manuscript found at Khotan belonged to the 2nd century A. D. It was a portion in Prakrit version in Kharosthi script of the well-known Buddhist Dhammapada. Another manuscript belonging to the 4th century A. D. was found which is a medical treatise in Sanskrit verse with direct quotations from Charaka and Sushruta.

Eight miles from Tun-huang an important group of 182 frescoed caves, popularly known as the *caves of the thousand Buddhas* was discovered by the Russian archaeologists. A little later in 1908 Sir Aurel Stein, the veteran explorer visited a monastery whose consecration date is A. D. 366 and was told that a pious monk knew a secret chamber hitherto unknown to all. The monk was induced to divulge the secret and Sir A. Stein was led to a big hall. Some 900 years ago the monks of the monastery apprehended destruction from some unknown invaders and hurriedly thrust invaluable relics, religious paintings and manuscripts and closed the door of the hall by mud plaster with a painted decoration. The monks fled never to return but the secret chamber remained concealed for about 900 years till the monk by chance made an opening and came to know of the existence of the hidden treasure. The contents of this chamber were really rare and wonderful. It contained some 20,000 manuscripts and documents and 554 separate paintings. Of the manuscripts some 3,000 are in Sanskrit in Central Asian varieties of Brahmi. Ruined sites elsewhere gave many other interesting materials. At Turfan were found fragments of three very ancient Buddhist dramas written in Sanskrit character of the 2nd century A. D., one of them containing the name of Asvaghosa as the author. Fortunately most manuscripts are, unlike the Indian manuscripts, dated. These materials

together with the coins discovered in the same locality enabled scholars to reconstruct dated history hitherto shrouded in darkness.

There is reason to believe that Buddhist missionaries of the Hinayana school first came to Central Asia and from the records of Fa Hien and Yuan Chwang we know that thousands of Hinayana Buddhists lived in this area. After the Kushana period communication with the North West of India was closer and the Mahayana Buddhism began to dominate and then from Central Asia Buddhism began to infiltrate into China. There is an interesting story of how Buddhism was first introduced into China. Ming-Ti, Emperor of China in the later Han Dynasty in A. D. 65 saw in a dream a golden person and his ministers interpreted this figure to be no other than Gautama Buddha of India. The Emperor became interested and sent for Buddhist teachers. Already in the year 2 B. C. the first Buddhist text was brought to China by a Chinese Ambassador and this time the Emperor's men persuaded two Indian Buddhist monks Kasyapa Matanga and Gobharana to return with them from Khotan. They arrived leading a white horse loaded with books and images, and the Emperor built the White Horse Monastery for them. Matanga translated the "Forty-two Sayings of Buddha" and the text, oldest of all Chinese texts has survived. Kucha was already a strong centre of Buddhism. According to the Indian tradition Asoka's son Kunala was blinded by his stepmother but according to the Chinese tradition Kunala was not blinded but banished to Kucha where he established a dynasty and the Kucha dynasty claimed its descent from Asoka. One Kuchan monk, Dharmaraksha by name went to Tun-Huang and settled there. He knew 36 languages and went to China in A. D. 284 and translated some 200 Sanskrit texts into Chinese and some 90 of them

have survived. Another interesting figure is Kumarajiva (A. D. 344 to A. D. 413) who converted the people of Kucha to Buddhism. Kumarajiva had his education in Kashmir and at the age of 20 returned to Kucha. Afterwards, it is said, he was made a captive by a Chinese military party and taken to Northern China where within 10 years he learnt Chinese and translated many texts. Buddhism became very popular in Southern China in the 5th century under the Liang Dynasty. Bodhidharma, the royal Indian monk reached Canton by the sea-route and founded the Dhyani sect of Buddhism which became very popular in China and Japan. By A. D. 372, Chinese Buddhist monks went to Korea and Buddhism was recognised there officially in 538. From Korea it went to Japan in 538.

Tibet is nearer to India but curiously Tibet accepted Buddhism rather late. Tibet is separated from the mainland of India by huge snow-clad mountain barriers. The eastern border of Tibet meets the eastern border of India where the Brahmaputra has turned in the western direction in Assam. There is also a road through Sikkim in northern Bengal but the communication generally is very difficult. The people are Tibeto-Mongolian and speak a language called Tibeto-Burman which contains a large mixture of Sanskrit. A Tibetan king, Srong-Stan-Gampo between 630 and 640 had two queens, one Nepalese and the other Chinese. Both of them were Buddhists and both took with them an image of Buddha for which temples were built. The same ruler felt the necessity for a script and alphabet as the Tibetan language had none and he sent his minister Sambhota who went to Kashmir and with the help of a Khotanese Brahmin learnt Sanskrit and worked out the principles of Tibetan grammar. He invented a new Tibetan alphabet on the model of the

Khotanese alphabet which was derived from Gupta alphabet. Afterwards Buddhist teachers from Vikramashila and Nalanda went to Tibet and preached Mahayana Buddhism. Already the Tibetan people had a religion which was akin to the Tantrik variety of Buddhism then prevalent in Bengal, Bihar and Nepal. A considerable amount of magic, sorcery and supernatural powers formed the background of this religion and ultimately the Buddhism that came to prevail became a variety of Tantrik Buddhism.

Tibet has kept herself entirely aloof from any modern influence. Present day civilization has not penetrated into Tibet and the outside world practically knows nothing of this mystery land. In some parts of Tibet polyandry i.e., sharing a common wife by all the brothers—still prevails and there are some customs which according to the modern standard will be considered barbarous. People, however, seem to be happy with less worries and anxieties and it is popularly believed that old age is unknown in Tibet.

Though practically independent Nepal forms part of India culturally and geographically. The modern village of Rummindei where in the Lumbini garden Gautama Buddha was born and where stands even today the pillar erected by Asoka, is 14 miles inside the border of the state. The people are Buddhists but the ruling classes are Hindus, possibly a mixture of Rajput. After the Moslem invasion Hindus fled to Nepal and took with them many Sanskrit manuscripts. Unlike any other part of India, Hinduism with its caste-system undisturbed by any modern influence prevails in its more or less old and orthodox form as the state does not allow any non-Hindu missionary activity within its border.

The earlier groups of the fresco paintings in Central Asia indicate strong influence of the Gandhara school. The

later paintings betray the influence of the Gupta school and look more or less like the Ajanta art. The figure becomes more thin, the pose more meditative and serene and the drapery more transparent. Temples and buildings in Tibet indicate the influence coming from several directions. The floor is usually of stone, the walls of brick and the roof of wood with carvings. So far as food is concerned it seems that Buddhism could not much influence the dietary of these countries. The Buddhists of Burma, Siam, China, Japan, Nepal and Ceylon are not vegetarians. There is some prejudice against killing fish and animals but if killed *by others* pious Buddhists in these countries do not refuse to take them. While beef is taken in China and Japan, Buddhists in Nepal, Burma and Ceylon do not take it.

INDIA AND CENTRAL ASIA

CHAPTER XX

INDIAN CULTURE IN SOUTH-EAST ASIA

Asoka's mission in Ceylon—further contact with India. In Burma the kingdom of Mons at Thaton, and the kingdom of Pyu. From Lower Burma Buddhism goes to Upper Burma, Indianised kingdom in Malaya at Chaiya and Nakhon-Sri-Thammarat, the story of Kaundinya in Cambodia. Indianised kingdoms of Dvaravati, Champa, Ankar Thom of the Khmers,—the temple of Ankor Wat—Sanskrit learning. Hindu migration from Orissa in Sumatra. The Sri-Vijay kingdom in Central Sumatra. The Buddhist temples at Borobudor. Indian culture in Java and Bali.

In the Ramayana Ceylon is called Lanka ruled over by Ravana who stole away Sita. Rama built a bridge of stones across the sea with the help of his monkey troops, entered Lanka and finally defeated and killed Ravana. There may not be any historical basis of this story but the march of the Indian into Lanka in some pre-historic times is a theoretical possibility. The language of Ceylon called Sinhalese belongs to the Sanskritic group, which shows that Ceylon first came in contact with Northern India and not with the Tamilian South though the latter is nearer. At present the Indian element in Ceylon is predominantly Tamilian. According to Megasthenes who had no direct and personal knowledge, Ceylon formed a part of India and he believed that the two were separated by a river. According to tradition one Bengali prince, Bijay Simha by name in the 5th century B.C. in the year when Buddha died, sailed out from Bengal and landed in Ceylon with his seven hundred soldiers, defeated the local chief and established himself as the ruler of the island whence the name Simhal

AJANTA PAINTING DESCRIBING BIJAY SIMHA'S INVASION OF CEYLON

The above picture drawn by some unknown artists 2,000 years ago, in one of the Ajanta caves, describes the invasion of Ceylon by Bijay Simha.

—hence Ceylon from his surname (*simha* means a lion). Prince Bijay married a daughter of the king of Pandya who brought with her the traditional seven hundred maidens for Bijay's seven hundred Indian followers and since then Indian artisans expert in the various crafts started pouring in. Rice which was not of native origin there, came from India.

In the 3rd century B. C. when the empire of Asoka extended up to the Pandya kingdom in the south, king Tissa of Ceylon sent some courtesy gifts to Asoka who utilised this occasion for sending the first Buddhist mission headed by his son Mahinda or Mahendra, later followed by his daughter, Samghamitra. The mission was a complete success. The king of Ceylon accepted Buddhism and along with him all his people. All were highly impressed by the noble teachings of Buddha, but here as elsewhere, the masses of the people were more impressed by the sacrifice, devotion and pious life of the princely missionaries. In course of time Buddhist monasteries, large in number and larger in size, came to be constructed. King Tissa built the first stupa, also the first monastery on the hill called Mihintale, eight miles east of Anuradhapur. There still exists a cell where Mahendra lived and died. Pilgrims throughout the world go there to visit the site. Of the innumerable monasteries that were built in course of time the most notable was the Brazen Palace at Anuradhapur, a nine-storied, thousand chambered construction, roofed with copper. Sixteen hundred stone pillars, twelve feet high, which once supported this building, still stand in forty parallel rows. In building stupas and monasteries Ceylon surpassed India. Such gigantic stupas and monasteries are not to be seen in India. Thousands of Indian monks were invited. They came with Indian books and Indian learning and influenced the intellectual life of Ceylon. Along with

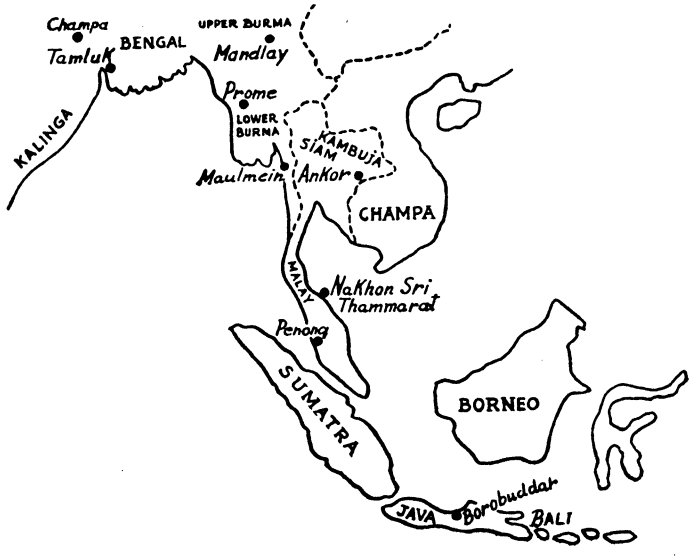
monks, sculpture and learning, Indian arts and crafts, dance and music, manners and customs also penetrated. The influence which India exerted over Ceylon was, however, purely cultural and not political. The Buddhist monasteries some of which contain inscriptions in the Asokan Brahmi script, became the great centres of learning where the Buddhist Canons in original were studied. Along with Buddhism, its language Pali also came to Ceylon, and Pali continues to flourish in its purest form practically unmodified. The Buddhist scriptures in the original Pali were studied in Ceylon, at a time when Pali was forgotton and lost in other parts of the world. Then as now the Ceylonese pundits used to study the Buddhist scriptures in original Pali. So scholars in the 5th century A. D. had to go to Ceylon in search of palm-leaf manuscripts in Pali and studied Buddhism in its purest surviving form. Not only the Pali texts of Buddhism but so many other relics also came from India. A branch of the Bo-tree, under which at Bodh Gaya, Gautama got the enlightenment also came and was planted at Anuradhapur, outside the southern gate. A fragment of this tree still exists and this is possibly the oldest historical tree surviving on earth. Since then, numerous branches of the same tree were transplanted in all parts of Ceylon. In India at Bodh Gaya, the temple and the tree lay buried under earth and when in the 19th century Bodh Gaya was excavated and the original temple and the site unearthed, one branch of the tree from Ceylon was carried and transplanted there.

Interesting stories are also told regarding some other Buddhist relics. It is said that Asoka sent the Eating bowl of Buddha to Ceylon along with some other relics. The Eating bowl was kept in the palace and worshipped. With the change in dynasties and shifting of the capital from

place to place the Eating bowl also moved and in the 5th century A. D. Fa Hien saw the Eating bowl at Peshwar. Today it is believed to be with some Moslem Fakir in Afghanistan.

Ceylon always kept friendly relations with India and as it involved no political subordination the relation was closer and deeper. King Meghavarman of Ceylon sent an ambassador to Samudragupta and sought his permission to build a rest house for Ceylonese pilgrims at Bodh Gaya. Obviously pilgrims in large numbers used to visit the country.

Evidence of India's contact with Burma, Malaya and the South-East Asia can be traced from the 6th century B. C. Evidence of Indian merchants and sailors from the



INDIA AND SOUTH-EAST ASIA

Western coast, trading with Europe are available. The same is noticeable from the Eastern coast from where merchants and sailors went to Burma, Malaya and the countries beyond. The Pali Jataka stories refer to merchants going to Suvarnadwipa, Balidwipa etc. The Ramayana contains allusions to these countries. Asoka in the 3rd century B. C. is said to have sent missions in Suvarnadwipa which sometimes meant Lower Burma and sometimes Malaya. The Barley island first meant both Sumatra and Java but from the 9th century onwards it means Java only. Communication with these countries was maintained by ships across the Bay of Bengal and not through Bengal and Assam. The hills and jungles as well as the rivers that connect India with Burma by land were impassable in those days as they are even today and it seems, venturesome sailors from Bengal, Kalinga, Andhra, Kanada, etc., used to sail across the Bay of Bengal. In Lower Burma there was the old kingdom of Mons with its capital at Thaton, on the gulf of Martban near the modern port of Moulmein. Unlike the Arakanese and the Burmese who are Mongolians, the Mons were related racially with the Mundas in Central India and it seems that in some pre-historic times large scale Munda migration had taken place. By the 1st century A. D. the Hinayana Buddhism was well-established there. Buddhaghosa, the celebrated Pali commentator visited the place in the 5th century, by which time Buddhist temples and monasteries with inscriptions and books in Pali were available. Another kingdom in Lower Burma was the kingdom of Pyu with its capital at old Prome. Both Mahayana and Hinayana Buddhists, as well as Hindus lived in this kingdom and this is proved by the archaeological evidence. The Pyu script is similar to the Kanada-Telugu script and there is no doubt that the Pyu script was a direct importation from India.

In Upper Burma Buddhism of the Mahayana school was introduced in the 3rd century A. D. but it seems that Animism, Hinduism, Tantrikism, and Mahayana Buddhism (very difficult in practice to differentiate one from the other) all were prospering there. Then in the 11th century A. D. the king of Upper Burma invaded the Mon capital at Thaton and carried away the thirty sets of Pali Pitakas. Along with the Pitakas came monks to interpret them. Not only that, the conqueror also carried, it is recorded, a large number of experts in various arts and crafts so that in course of the generations that followed, Indian religion and learning, Indian arts and crafts, music, architecture and sculpture started flourishing there. At Pagan, the capital of Upper Burma thousands of pagodas and monasteries were built and some 800 are in good condition. The successive kings of Burma kept friendly relations with the kings of Bihar. The Mahabodhi temple at Bodh Gaya was reconstructed by them and thousands of Burmese pilgrims used to visit the place. When India was invaded by the Moslems and when the monasteries in Bihar were ruthlessly destroyed, Buddhist monks fled to Burma where they were welcomed with respect. Many scholars from Nalanda took refuge at Pagan and with them a fresh influx of Indian ideas and institutions took place. Burma however, assimilated them into their own. The temple bells and gongs, the bell shaped pagodas, the Buddha images of gold and black lacquer, fresco paintings etc., are certainly the result of India's contact with Burma. Indian culture, however, could not and did not wipe out and supplant the local culture, as the early Europeans did in America. It rather strengthened Burmese cultural life. The whole of Burma today follows the Hinayana Buddhism. Buddhism once flourished in the whole of Bengal. Today

only a few lakhs of Buddhists live in the district of Chittagong bordering on Burma.

Archaeologically no work practically was done in Malaya. A ruined shrine with Sanskrit inscriptions at Kedah, the oldest surviving building in that area and some ruins in the Siamese part of Malaya in Chaiya and Nakhon-Sri-Thammarat, indicate the fact of having an Indianised culture. Indians both from the north and the south came in search of adventures and settled on the western coast which lay on the main sea route. From Chinese records we learn that there were Indianised kingdoms which sent ambassadors to China. These rulers bore Indian names and engaged historians attached to their embassies in China and that Sanskrit was taught and understood in these kingdoms.

In Cambodia, according to Chinese sources, a Brahmin called Kaundinya came from Malaya with a number of followers and had an encounter with the queen whom he defeated and ultimately married. The kingdom founded by him soon brought under control several neighbouring principalities, taught the primitive people to wear clothes, introduced arts and crafts and set up Brahmin colonies. This kingdom lasted for some six centuries. This kingdom according to the Chinese source again, used to send representatives mostly on courtesy visits to India. Along with Brahmanism, Buddhism also made its way. Buddhist monks used to accompany their ambassadors to China and translate Buddhist scriptures and propagate Buddhism in China.

In Central Siam there was one Indianised kingdom called Dvaravati. The Hinayana Buddhists of the kingdom of Mon drifted towards central Siam and this kingdom lasted uptil the 11th century. Afterwards they

were over-ridden by the Thais who, however, were Hinayana Buddhists. The Buddhist temple built by the Thai king in his capital was on the model of the similar temple at Pagan which again was on the model of the temple at Bodh Gaya. The Thai kings maintained good relations with the king of Ceylon.

Another Indianised kingdom rose into prominence in Indo-China. Immigrants from the port of Champa, modern Bhagalpur in Bihar, came and settled. The original inhabitants were of mixed Malaya and Polynesian stock. The new-comers mixed with them, gave the new kingdom the name of Champa which lasted up to the 15th century till they were finally defeated by the Annamites.

In Cambodia there arose an Indianised kingdom which surpassed all others. According to their own legend, the Indian sage Kambu came here, married the Naga princess and set up a dynasty which ruled uptil the 14th century when the Siamese overcame them. The capital Angkor Thom, which is derived from the Sanskrit *Nagara* a city and the Khmer *damma*—great i.e., the great city, is situated by the side of a lake which had an opening into the river Mekong. This gave an excellent harbour facility for the Khmer navy. The Khmers conquered all the neighbouring states and their empire extended from the China Sea to the Bay of Bengal and must have grown fairly rich so as to devote so much in building magnificent temples. The Khmer rulers were mostly Hindus bearing Indian names but the personal faith of the ruler did not matter. All rulers had to maintain all temples Hindu or Buddhist. Scattered throughout the mountains and jungles in Cambodia, there are the ruins of some 600 monuments but the temple Angkor Wat is by far the most magnificent. Possibly this is the largest temple in

the world. With endless beautiful designs and patterns it is decorated from top to bottom. In the gallery inside the temple on one side for about a hundred yards long, are the sculpture which narrate straight the story of the Ramayana and the Mahabharata. The temple establishment must have been a heavy drain on the treasury. One inscription says that in one temple there were 79,365 persons on the register and 12,640 had the right of living in the temple compound. Armed guards protected the temple treasures which contained amongst other things 40,620 pearls, and 35 diamonds.

The Khmers patronised Sanskrit learning. Ashramas, forest retreats and educational centres were numerous and the Khmer princes were taught Indian scriptures, sciences and philosophy. The Khmer inscriptions have direct quotations from the Vedas, Puranas, the Epics, the Dharmasastras, the Philosophical works etc. The temples had excellent libraries containing Sanskrit manuscripts but are all lost.

In Indonesia, Sumatra had its Buddhist kingdom and Java its Hindu kingdom. Today Indonesia is almost hundred per cent Moslem. Sumatra has not been fully explored. There are still active volcanoes there. In Java better materials are available. According to their tradition the Indian sage Agastya first came here. According to tradition again, it is stated that sometime in the 2nd century A.D. some 20,000 Indians from Kalinga arrived in Java. On another occasion, another 5,000 Indians in six large ships arrived. These people brought with them their arts and crafts, their manners and customs, their beliefs, superstitions and learning. According to the Chinese source, one Hindu ruler Devavarman in 132 A.D. sent an ambassador to China. Fa Hien, on his way was disappointed

HINDU COLONIAL ENTERPRISE IN ANCIENT TIMES

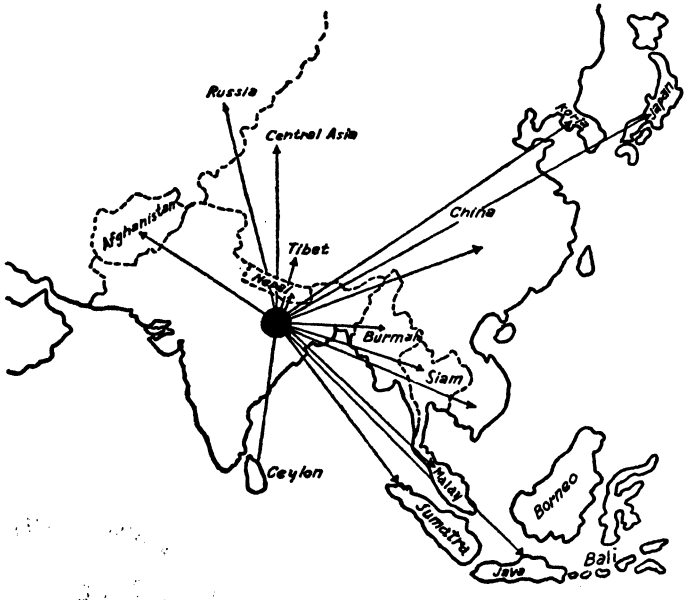
The above sculpture from Borobudor shows the maritime and colonising activities of the Hindus.

to find Brahmanism flourishing in Java in the 5th century A. D. But soon Buddhist missionaries started coming and Buddhism began to increase. In the later half of the 7th century, Itsing, another Chinese pilgrim spent some 8 years in the Sumatran kingdom of Sri-Vijaya. Itsing says that Sanskrit was well-taught here, and the rules and ceremonies were almost similar to those in India so that a Chinese priest before going to India for further study, should stay here, learn Sanskrit, practise the proper rules and then proceed towards India. The Sri-Vijaya kingdom originally was a small kingdom on the northern side of the straights of Malacca from where with a powerful navy it could control the sea routes to China, India and Arabia. Gradually it became a strong naval power, set up colonies in Borneo and the Philippine islands. The Sailendra dynasty whose origin is obscure, ruled over the Sri-Vijaya kingdom which became a mighty empire lasting for some four centuries. There is evidence of some rivalry between the Buddhist Sailendras and the Hindu Cholas of South India. One Sailendra king is known to have actually invaded Ceylon and died in the battle.

In central Java, there stand the ruins of the Buddhist temple at Borobudor, larger than any found in India. Definite information as to who built it, and during which time, is not available. It is a whole mountain top carved into nine stone terraces. A series of 1,500 sculptured panels in four galleries of the tower terraces, contains decorations from celebrated Buddhist legends. The bas-reliefs resemble classic Gupta sculpture with youthful princes and princesses in chaste nudity and in the attractive Indian pose. From the 14th century A. D. the Moslems became a new power in the Indian ocean. Local Javanese rulers intermarried with them. Though Hindu, the caste system was not so rigid and the Hindu influence started declining from

the 11th century and the new Indonesian culture, so long dominated and held in check by Hindu culture, became marked. Today the whole of Indonesia is Moslem. The Hindu element was pushed to the island of Bali at the eastern corner of Java where the remnants of Hindu culture are waiting for extinction.

Hindu migration took place in Borneo and the Philippine islands and Hindu culture spread there. Hindu culture may have gone even to the West Indies, and the Latin America. This is as yet unexplored. Traces of some connexion merely exist but no definite historical evidence is as yet available.



DIFFUSION OF INDIAN CULTURE ABROAD

It should be noted in connexion with the spread of Indian culture in the South East Asia, that Hinduism first went there but Hinduism was afterwards ousted by Buddhism. The difference between animism, Tantrikism, Hinduism and Mahayana Buddhism is very small. One easily shades into the other. The worship of Shiva is easily replaced by the worship of Buddha. Besides, seldom was there any large scale persecution. The second important thing to be noted is that except on rare occasions, mass scale exodus of Hindus from India did not take place. Enterprising sailors and merchants, daring youths in search of adventure, exiled princes and ascetics, teachers of religion with missionary zeal came and settled. All did not come direct from India. Indianised kingdoms arose in Burma, Malaya and Sumatra. These became centres of Indian culture and from these again, radiated Indian culture to still distant areas. Lastly, her influence had always been through art, religion and philosophy. It was never political or military. Kingdoms that arose in these areas maintained relations with their corresponding Indian rulers with the deepest respect. Since the influence was never political and military it never bore heavily on the local systems. The Indian system never supplanted or wiped out the local culture as did the European culture in the American continent.

CHAPTER XXI

SOUTH INDIAN CONTRIBUTION TO INDIAN CULTURE

The Dravidians including the Mohenjodarians are one of the pre-Aryan races in India. Peaceful penetration of Aryanism in the Deccan. Political history—the Andhra power after the Mauryas. The Pallavas and the Kadambas. The Chalukya empire, the Tamilian states of the far South. Tamil literature, the cult of Bhakti, the magnificent temple, commerce and colonisation, democratic administration, jury system, music and dance — contributions of the South to Indian culture.

The plateau of the Deccan proper is bounded on the north by the river Narbada and on the south by the Krishna and the Tungabhadra. It does not include the Tamilian states of the south and to the Tamilians in the southern most states, people living in this area are northerners. In northern India, today, all persons below the Vindhaya mountains, speaking any of the non-Sanskritic languages are known as Madrasis. The division of India between the Aryan north and the Dravidian south is sharp and is always keenly felt. The white-skinned northerners speaking some Sanskritic language are proud of their Aryan descent and have a superiority complex. The dark-skinned southerners with their sturdy common sense and superior intellect are conscious of their Dravidian traditions and intensely resent the vanity of the northerners. It is doubtful to what extent people in northern India except the North West are of Aryan stock. It is, again, undisputed that the Hindu culture of today contains elements from both the Aryans

and the Dravidians. Even at present Hinduism in its most orthodox form lives in the Deccan and not in Aryavarta.

It seems that once in prehistoric times the whole of India was inhabited by the Dravidians. The backward tribes like the Gonds in central India, are the survivors of those who once lived in the whole of the Gangetic valley before they were pushed out. In Baluchistan there is still a small group of people speaking *Brahui*, a dialect of the Dravidian group of languages. The people are physically not Dravidian and scientists wonder wherefrom these people came. The Mohenjodarians who thrived in India long before the Aryans came, belonged to the Dravidian group and there is no doubt, the Dravidians once dominated the whole of India. If Aryanism spread in the Deccan, it was entirely gradual and peaceful. Aryanism of the north did not suppress the genius of the south; it had a stimulating effect and some elements of Aryan culture blossomed better in the south. The Dravidian south assimilated the Aryan culture and made it its own so that Aryanism is not foreign in the Deccan just as the English are not foreigners in England. According to tradition the Vedic rishi Agastya went to the Deccan and initiated Vedic religion amongst the people there. *Apastamba*, one of the Sutra writers was a man from the Deccan. He must have lived in the 7th century B. C. So the Vedic religion must have spread there at least a few centuries earlier. The story of Agastya, however, need not mean that the people in the Deccan were uncivilized before. They were, on the contrary, a highly civilized people. The Vindhya range of mountains is older than the Himalayas and men must have lived in the Deccan when Aryavarta was under water. Skeletons of men of the earliest age are as yet not found in the Deccan but there is no doubt that human life existed in some form in the very early period of civilization. One thing, however, is puzzling

the scientists. Whereas in northern India as elsewhere, the Copper age preceded the Iron age, in the Deccan copper and iron implements are found mingled together. It means that iron might have been invented independently in the Deccan and did not come from outside.

Politically the Deccan was never completely subdued. Nor did any power of the south conquer northern India. Under Asoka the Deccan was nominally under the Maurya empire and the Tamilian states in the Far South were independent. After the downfall of the Maurya empire, the Andhras, a Telugu-speaking people between the Godavari and the Krishna, became powerful. The Andhras first had their capital at Amaravati near the mouth of the Godavari. After some time one Brahmin, Simuka by name set up a new dynasty called the Satavahanas in western India with its capital at Paithana. His son Satakarni added territories, defeated Nahapana, the Saka Satrap at Nasik. The last great ruler was Yajna Shri Satakarni under whom the Andhra-Satavahana empire extended from the Bay of Bengal to the Arabian sea. It repulsed the Sakas, the Yavanas, and the Palhavas; and restored the observance of caste rules and the sacred religion. Yajna Sri Satakarni was interested in maritime activities. He had a fleet and Indian mariners had trade connexions with Egypt and Persia by sea. A prince of this line married the daughter of Rudradaman, the Saka Satrap at Ujjain. The daughter of Nahapana, another powerful Saka Satrap of Nasik married Ushavadatta and adopted Hindu rites, and since then, all Saka Satraps of Ujjain began to bear Indian names. The Andhra-Satavahana empire lasted for some four centuries and a half. The Andhra contribution in art and literature was considerable. One ruler Hala was a poet and wrote in the ancient Maharashtra language. One of his ministers wrote a Sanskrit-Prakrit grammar. Gunadhya the famous

author of *Brihatkatha*, a collection of popular tales in Prakrit, flourished during this period. There was no religious persecution and the Hindus, Buddhists and Jains lived side by side. The Indian genius in art and architecture, without any foreign influence expressed itself in the famous Buddhist monuments at Amaravati, Ajanta and Sanchi, any one of which alone entitles the Andhras to lasting glory. Today nothing survives except the memory of the glorious past and there is a demand for a separate province of Andhra for the Telugu-speaking people of the Deccan.

How the Andhra power declined is not clearly known. After the second half of the 3rd century the Pallavas in the south and the Kadambas in the west rose in power, and the Andhra-Satavahana empire was parcelled out into a large number of small kingdoms and principalities. The Rastrakutas who ousted the Kadambas in the west were a Rajput clan. The dynasty was founded in 753 by Dantidurga. Krishna I was a very powerful ruler of this dynasty and under him the Rastrakuta power became supreme in the Deccan. It was during his reign that the famous Kailasa temple of Ellora was constructed. But the greatest ruler of the line was Amoghavarsha who ruled for sixty-two years from 815 to 877. He transferred his capital to Malkhed. One Arab merchant, Suleiman states that he was one of the great four monarchs of the world, the other three being the Caliph of Baghdad, the Emperor of China and the Emperor of Constantinople. The Rastrakutas had friendly relations with the Arabs. These merchants used to come in large number and many of them settled in western India.

The Pallavas were feudatories to the Satavahanas of the Deccan but after the fall of the latter by the second half of the 3rd century A. D. they became very powerful.

They imposed their rule over the ancient ruler of Chera, Chola and Pandya in the south and had to fight constantly with them. The Chalukyas on the northern side were their enemy. For about two centuries, from the middle of the 6th to the middle of the 8th century they were the dominant power. Mahendravarman I was a great ruler of this dynasty who ruled from 600 to 625. He was a great builder. He built a town and a great reservoir and constructed some rock-cut temples. He was, however, defeated by the Chalukya king, Pulakesin II in 610. His successor Narasimghavarman was the greatest ruler of this dynasty. He defeated and killed Pulakesin II. He had a

MEMBERS OF THE PERSIAN EMBASSY
IN THE COURT OF PULAKESIN

King Khusru II of Persia sent an embassy to Pulakesin and the illustration reproduced from one of the Ajanta fresco paintings is supposed to be describing the foreigners received in Pulakesin's Court.

strong fleet with which he helped a fugitive king of Ceylon who was restored to the throne. He founded the town of Mamallapuram, (modern Mahabalipuram, near Madras) where the famous rock-cut Raths or *Seven Pagodas* were constructed. Each of these temples was cut out from a great rock boulder and was adorned with relief sculptures on them. Their achievement in architecture and sculpture was unique. The Chinese traveller Yuan Chwang visited Kanchi during this time.

The Chalukyas or Solankis were a Rajput clan who entered the Deccan from the north. Pulakesin I founded this dynasty about A. D. 550 with Vatapi (modern Badami in the Bijapur district) as their capital. Pulakesin II was the greatest ruler of this dynasty. He subjugated the neighbouring kingdoms and set up an empire and the power was felt even in Gujarat, Malwa and Rajputana. He conquered Vengi from the Pallavas and appointed his brother as the viceroy who afterwards became independent and set up the Eastern Chalukya dynasty. He was strong enough to repel the invasion of Harsha and forced him to retire beyond the Narbada (A. D. 620). His fame reached beyond the shores of India and king Khusru II of Persia sent him an embassy which is depicted in one of the fresco paintings at Ajanta. (see p. 302) Yuan Chwang visited his kingdom during this time. In 642, however, in a battle with the Pallavas, he was defeated and killed. Another branch of the Chalukyas founded a new dynasty at Kalyani which flourished for sometime till they succumbed to the Yadvas of Devagiri and the Hoysalas of Mysore. Of the Tamilian states in the Far South Pandya was the oldest. Asoka's Girnar Edict refers to it. Megasthenes also tells us a story of *Pandaia*. From European sources we also hear of a mission being sent by *king pandion* to Augustus in 20 B. C. Ptolemy, the Greek geographer, who wrote his book about

A. D. 140 described southern India as *Damirike* which is a transliteration of *Tamilikam,* the name of the country in Tamil. The Pandya kingdom comprised the modern districts of Madura and Tinnevally with parts of Travancore. Its earliest capital was Korkai but when it became inaccessible owing to the silting up of the delta, Koyal became the important centre and was a flourishing port. In historical times Madura, Mathura of the South, was the capital. Madura became an important seat of learning. Its literary academy called *Sangam* became famous. The Pandya kings had to fight constantly against the Pallavas of Kanchi and made common cause with the Cholas. In the 11th century they had to submit to the Cholas but in the 13th century they, again, asserted their independence. The Venetian traveller, Marco Polo visited this kingdom towards the close of the 13th century and was highly impressed by the wealth and prosperity which the ports enjoyed. From ports large sea-going vessels were moving both to the east and the west, and Koyal was an important international trade centre. Pandya was absorbed in the kingdom of Vajayanagar in the 16th century. The Chola country extended along the Coromandel coast from Nellore to Pudukottai. It included modern Madras with several adjoining districts and a large part of Mysore. The earliest Chola king was Karikala who founded the town of Puhar at the mouth of the Cauvery and constructed an embankment along that river. The greatest ruler of this dynasty was Rajaraja the Great who ascended the throne in A. D. 985. He was the real founder of the greatness of the Cholas. He was a great warrior and subjugated all neighbouring kingdoms including Ceylon. He built a powerful fleet and his son Rajendra Choladeva I (1035) defeated Mahipala of Bengal, conquered Pegu and the Andaman islands, sent a successful naval expedition to

Sumatra against the Sailendras and became a great sea power in the Indian ocean. After sometime the Cholas came in conflict with the Chalukyas but a matrimonial alliance between a Chola princess and a Chalukya prince led to a new Chalukya—Chola dynasty. In the 13th century Chola power declined. The Pandyas asserted their independence and in the 14th century the rise of Vijayanagar put an end to the Chola power.

The Chera country, also known as Kerala, included modern Travancore, Cochin and some portions of Malabar. The people speak Malayalam which is a mixture of Tamil and Sanskrit. The state is as old as the other Tamil states but it had no separate political history. It was conquered by the Cholas and it shared the prosperous foreign trade with the other Tamilians. It was completely free from any Moslem influence even in the 16th century.

Although one dynasty after another rose and fell and although they were fighting constantly with one another, victory sometimes going on one side and sometimes on the other, the people in general pursued their callings undisturbed. Fighting was done by a professional class. The Brahmins, the traders and the peasants had nothing to do with fighting. A pitched battle decided which dynasty would rule but a change in dynasty never meant any change in life. Laws and institutions were unaffected. This explains how, through all these vicissitudes for thousands of years, the cultural life in India went on in unbroken continuity. Wars by Indians were not so destructive of life. This, however, was not true when the Moslem fanatics fought in India. Indian wars were never as destructive as those waged against Indians by outsiders. Not simply plundering and looting but destroying temples and idols, burning books and libraries, butchering priests

and everything associated with idolatry, were part of their war policy. The Moslem influence did not penetrate into the Tamilian south, where the Hindu cultural life in its orthodox form continues even today.

The Deccan exercised a great deal of influence on the religion of the Hindus. Buddhism did not much flourish there. Monastic life was the main centre of Buddhism. The monks and nuns renounced all worldly connections and retired in the most secluded forest retreats like Ajanta. They would advance abstract arguments which had no appeal to the ordinary mind of the average people. The cold logic of the Buddhists was appreciated by the few intellectuals but in logic and philosophy a counter argument is always available if only the intellect is sharp. Hindu teachers like Shankara offered them and convinced many thinkers of the hollowness of the Nirvana philosophy. Any way, Buddhism was out of touch with the masses and on the whole Buddhism was declining. But Jainism had some influence, and lingered on for a longer time. Most of the rulers were Brahmins and stoutly championed the Brahmanical faith and in fact, the caste rules were made more rigid and orthodox. But many ministers were Jains and through them and through the Jain monks, art and literature in the South were considerably influenced. The greatest contribution of the Dravidian South was the development of the cult of Bhakti which, though of northern origin, spread more in the South during this time. Already, the Vedic religion of *Yajnas* was replaced by the *Puja* of the idol but in the Deccan Shaivism and Vaishnavism became very popular. The popularity of these two subdivisions of Hinduism in the Deccan, was mainly the work of some devotee preachers. There were some twelve devotees of Vishnu, called *Alavars* who came from all walks of life. Some were peasants, one was a woman and another

a king. They sang in Tamil, the common language of the masses and the genuine outpourings of the heart appealed to the emotions of men who were thus carried away. Vedic rites became obsolete long ago and they did not appeal to the ordinary people. Abstract logical arguments became too dry and the Yogic practices were difficult to perform. People were told to offer their love and devotion to their personal god and that alone would entitle them to salvation. Persons of any caste or creed could easily follow this path of Bhakti and naturally this faith had a stronger following. The collection of a few devotional songs in Tamil constitutes the *Prabandha* and they are recited even today in the temples of Vishnu in the South. The greatest of these Vaishnava saints was Nammalvar whose four works are called the four Tamil Vedas. Similarly, the Shaiva saints had their devotional songs and they inspired the hearts of the devotees of Shiva. The Sanskrit Ramayana and the Mahabharata were translated into Tamil and through them the masses of the Deccan began to love and worship the Hindu gods and goddesses, heroes and heroines.

The cult of Bhakti manifested itself in the construction and management of temples which is a great contribution to Hindu culture by the Deccan. A temple to Hinduism was what a monastery was to Buddhism. The whole life of the community centered round the temple. But the idol was no recluse. He was a Lord. He had to be bathed and washed, fed and clothed, praised, worshipped and entertained. Devotees from all walks of life, the king, the rich trader, the poor peasant — all contributed according to their capacity for the maintenance of the idol and the temple. Some donated the income from land, from animals, from workshop. Some would bear the expenses for feeding the idol in which case the food would be used by the priests and then distributed amongst beggars or

pilgrims. Some would donate goats, cows and buffaloes so that from the ghee out of their milk a perpetual lamp could be maintained in the temple. Priests, musicians, dancing girls, actors, sweepers, gardeners, carpenters, goldsmiths, etc., would be maintained by the temple for the services of the idol and the temple management became a huge and complicated matter. Schools and libraries were maintained by the temple management and recently some 30,000 manuscripts were discovered in the library adjoining the temple at Tanjore. One idol in a famous temple was said to have 859 diamonds, 309 rubies and 669 pearls. The south Indian music and dance have their own features and a temple would maintain musicians, actors and dancers. The institution of *Devadasi* i.e., dancing girls dedicated to the idol, was much abused and recently it was abolished.

The Hindu temples of the Deccan are a magnificent type of architecture which take away the breath of the beholder. The existing temples are, however, not very old. The Hindu architects, obviously based on the then existing models and in course of time developed their own genius. The technique of the rock-cut temples was already familiar. The finest specimen of this is the Kailasa temple at Ellora. Ellora like Ajanta was originally a Buddhist centre and the first 12 cave temples are Buddhist. Afterwards, by the middle of the 7th century 16 Hindu temples were constructed of which the Kailasa temple, built during the reign of Krishna is the most magnificent. Here it was not piling up stone upon stone but a hillock, some 100 feet high in the centre, 100 feet deep and 200 feet long, was taken and from the summit the builders began to cut and carve out in such a way that a magnificent sculptured temple was produced. A few decades may have taken to complete it, and sustained labour and skill, patience and resourcefulness of generations of builders had to be lavished. It is a wonder

of the world. Temples of stones were also constructed and usually two features mark out the Dravidian style of temple architecture. One is the terraced pyramidal tower of which the dome, called the *sikhara* dominates the whole structure and produces a spectacular effect. The second is called the *gopuram* or huge gateways to the temple enclosure. The central shrine is thereby reduced to insignificance and endless labour is lavished on the mighty gopurams. This also produces a spectacular effect. The seven monolithic temples or Raths at Mamallapuram (modern Mahabalipuram) were done under the Pallavas while the Cholas continued that style and built the magnificent temples at Tanjore and Gangaikonda Cholapuram.

The builders of temples were essentially sculptors. Of the many masterpieces the bronze image of Shiva as *Nataraja* in the temple of Tanjore is the most famous. Of painting, however, we do not know much as not much except the fresco paintings of Ajanta has survived.

It is not true that the Deccan lived a life of isolation from the rest of the world. Never was the Deccan isolated. The northerners including Brahmin priests with their Sanskrit learning went and settled there. They were well-received. Madura, Tanjore, Kanchi, Rameswaram etc., became important centres of learning where Sanskrit was highly respected. The southern ports had trade connexion with the outside world and the Greeks, the Persians, the Arabs went there in large numbers and many settled there permanently but nobody went there as invaders and victors.

If in ancient times northern India maintained contact with the rest of the world by land through the North West, southern India maintained connexion both with the West and the East by sea. The long coast line provided a large

number of ports from where Indian ships used to sail. Foreign ships in large numbers also came to these ports. In the Old Testament there is a story how Hiram, king of Tyre sent his ships to Ophir to bring ivory, apes, peacocks, gold, almug trees and precious stones for king Solomon who was building the famous temple at Jerusalem. Where this port Ophir was is not definitely known but India was the country which exported those articles 3,000 years ago. Some articles, we have seen, went to Europe from India through Persia and the European names still bear the traces of their Indian origin. Thus *apes* are known in Hebrew as *koph*. In Egyptian the word becomes *kafu* which is derived from Sanskrit *kapi*. Satin (cotton cloth) is *sadin* in Hebrew and *sinthon* in Greek. It is probably derived in some way from Sanskrit *Sindhu*. As *sinthon* has not become *hinthon* it is likely that satin was directly imported from south India (if through Persia by land it would have changed into h) Peacock is *tavus* in Persian, *tofos* in Greek. It is derived from *togai* in Tamil—Malayalam. Rice is *arus* in Greek; it is derived from *arisi* in Tamil. Similarly, *ginger* is derived from *inji* in Tamil.

Fine cotton piece goods called muslin with which the mummies in Egypt were wrapped up went from India. So went from the Indian forests timber used by Nebuchadnezzar for his palaces and temples in the 6th century B.C. The Alexandrian Greeks studied the Indian monsoon and the sea route to India became easily accessible. This is clear from the *Periplus*. Regular trade between India and Europe through the Red Sea continued for centuries, the principal articles for export being pearls, beryls, muslin, pepper and spices. In return India was paid in gold, and large quantities of gold coins came to be imported into India.

Petronius complained that fashionable Roman ladies exposed their charms much too immodestly by clothing

themselves in the "wabs of woven wind" as he called the muslins imported from India and Pliny stated that India drained the Roman empire annually to the extent of 55,000,000 sesterces, equal to £4,87,000 sending in return goods which sold up a hundred times their value in India. One scholar who has made an elaborate study of the Roman coins found in India, came to the following conclusions. There was hardly any commerce between India and Rome before the Consulate. With Augustus the trade grew culminating about the time of Nero who died in A. D. 68. From this time till Caracalla A. D. 217 the trade declined but revived again, though slightly under the Byzantine emperors. Tamil literature contains references to beautiful *Yavana* ships. The ships had Greek soldiers some of whom settled in India and the Indian kings used to appoint them as palace guards. Many Jews and Syrian Christians, in order to escape from Roman persecution in the 1st century came and settled in the South. Persian Christians persecuted by the Sassanids, also arrived in the 4th century. The Malabar Church even today uses Syriac as its liturgical language. Zoroastrian Parsees began to arrive on the western coast near Bombay from the 8th century. Many Arabs, mostly merchants, had come in trade connexion and were settled on the Malabar coast and their descendants formed the Moplah community. Many of these communities have a reputation for being shrewd traders. They are still thriving and they form an important element of the population today. A classification of the various types of ships is preserved in a Sanskrit text and the large size of some of them is referred to in both Indian and Chinese literature. Marco Polo says that the size of ships was measured by the number of baskets of pepper they could carry. A ship of five or six thousand baskets of pepper

should have a crew of two hundred sailors. Indian ships moved freely even as late as the 16th century.

Indian traders and mariners crossed the Bay of Bengal and went to Burma, Malaya and the Indian Archipelago. Indian colonies and settlements arose in those areas and with trade went ideas and institutions. The greatest contribution of the Dravidian south was the spread of Indian culture in the South East Asia which was brought about by their colonial enterprise and maritime activities. Centres of Sanskrit learning in Malaya rivalled the corresponding centres in India. A Hindu empire of greater strength and vigour flourished for four centuries in Siam, and produced the magnificent architecture at Angkor. Another empire flourished in Indonesia which became a centre of Indian culture and produced the fine specimen of art and architecture at Borobudor. Thus it was the southern India which was the carrier of Indian culture in the South East Asia.

Another great contribution of the Dravidian south was in the local self-government. In western India as well as in northern India, the system of land tenure is *ryotwari* i.e., a tenant holds land directly on certain conditions. In southern India land is held not individually by the tenant but by the whole village community jointly. From Tamil literature and from inscriptions we have excellent information on the administrative system under the Cholas. The unit of administration was the village or a union of villages called the *kurram* which had its general assembly called the *mahasabha*. Each *kurram* was divided into a number of hamlets or wards and names of eligible candidates recorded on tickets were sent to the assembly where the chief priest in the presence of all would put all the name-tickets into a pot and ask a boy to pick up one ticket. Members were

thus elected by lot. Qualifications for membership were ownership of some property, a good moral character, command over the sacred laws etc. Persons of immoral character, those who committed certain offences or failed to submit accounts of village funds were disqualified. The powers of the popular assembly were great. It controlled all revenue matters, regulated all local taxes and dues, and managed the public works such as the upkeep of roads, tanks and irrigation channels. It received deposit of money and grant of land for charitable endowments and administered trusts. It settled disputes about holding of land, detected crimes and punished criminals. The assembly had different committees under it and these committees administered all matters relating to garden, tank, temple, irrigation, roads etc. It was almost sovereign and enjoyed great autonomy. To supervise the assembly there were royal officers called *adhikaris* and the administrative system was on the whole an excellent device which combined democratic self-government and central control. A collection of the unions of villages (*kurram*) constituted the district called *nadu*, a number of districts formed a division called *kottam* and a number of divisions formed a province called *mandalam*. The Chola empire had some provinces each under a viceroy, usually a member of the royal family.

The jury system was widely prevalent. Dr. S. K. Aiyanger observes, "The jury system which is believed to be the special birthright of Englishmen and spoken of generally as unknown in India, is found to have been in full swing." Thus the royal officers while administering justice were assisted by the popular assembly which exercised equal if not more powers. The Chola administration combined efficiency with democracy to a remarkable degree.

In fine, we may conclude without any fear of contradiction that the present day India culture is made up of two

main streams one coming from the north and the other coming from the south. Without the contribution of the south Indian culture and civilization would have been wanting in its strength and vitality. Except the Vedic religion and Sanskrit, southern India's contribution was really stupendous. In certain matters the place of origin was northern India but southern India made them their own and developed them to their fullest expression. They were the great and prosperous cities with far-reaching trade connections, with magnificent, breath-taking temples, with superb masterpieces of sculpture in stone and bronze; the skilled industries, vast irrigation channels and sea going ships; fine musical system and poetry; the deeply emotional religious orders and the democratic but efficient administrative system. Every Indian is proud of them.

APPENDIX I

(A) The map on the linguistic division of India on page 66 contains figures from Grierson's *The Linguistic Survey and the Census 1911.* The following figures which show that the *relative position* has not much altered, are from *About India*, a Government of India publication.

Hindi	79,221,607
Bengali	53,091,473
Bihari	27,926,502
Telugu	26,213,087
Marathi	20,888,985
Tamil	20,227,545
Punjabi	15,811,545
Oriya	11,133,583
Kanarese	11,206,125
Gujarati	10,832,278
Malayalam	9,125,397
Assamese	1,992,846
Kashmiri	1,437,983

(1) A comparison of the following will show the affinity (see p 25) of all the Indo-European languages.

English	German	Latin	Greek	Old Persian	Modern Persian	Sanskrit
Father	vater	pater	pater	pitar	pidar	pitar
Name	namhe	nomen	onoma	nama	nam	nama
Nephew	neffe	nepos	anepsios	napat		napat
Mother	mutter	mater	meter	matar	madar	matar
Brother	bruder	frater	phrater	bratar	bradar	bhratar
One	ein	unus	oinos		yak	eka
Two	zwei	duo	duo		dwo	dwee
Three	drei	tres	tria		seh	tree
Four	vier	quattur	tettera		chahar	chatoor
Am		sum	eimi		am	asmi
Are		es	ei	ahi		asi
Is		est	esti			asti
		jupiter	zeus	pater		dyauspitar
		aurora		eos		usa
Star	stern		aster	star	sitara	tara
Water			(h)udor		samandar	samudra
nest	nest	nidus				nida
Man	mann	mens			mard	manu
Spy				pasye	specere	pas
Stand	stehen	sto	istemi	sta	Istoda	stha

From a study of such common words and expressions it has been realised that the ancestors of the people speaking these languages must have lived at one place in some pre-historic times and had one common language. In course of time their descendants moved in different directions and settled in different countries. Thus the common language changed giving rise to different languages. The rules underlying the change that took place are also formulated. Thus, for examples.

(1) Sanskrit k as in (kratu, power) corresponds to Greek k (kartos, strength), Latin c or qu (cornu, horn), German h, g or k (hart) and English p, g or f (hard)

(2) Skt. g or j (as in jan, to beget) corresponds to k g (genos, race) L. g (genus) Germ. ch or k (kind, child) Eng. k (kin)

(3) Skt p (as in patana, feather) corresponds to Gk p (pteros, wing), L. p (penna, feather) Ger. f or v (feder) Eng. f or c (feather).

(C) For comparison the following sentence, *In ancient times in Ayodhya there lived a king Dasharatha by name* is rendered in the following languages thus:

Sanskrit—Purakila Ayodhyayam Dasharatha nama kashchit raja asit.

Ardhamagadhi—Pura khu Ayodhyaye Daharho nama kashchi raja asi.

Maithili—Pahine Ayodhame Dasharath namako ek raja chhala.

Bengali—Purakale Ayodhyay Dasharath name ek raja chhilo.

Oriya—Purakalare Ayodhyare Dasharatha namare jane raj a thile.

Assamese—Purankalat Ayodhyat Dasharath namar ejan raja asil.

Hindi—Prachinsamayme Ayodhyame Dasharath namak ek raja tha.

Marathi—Purvi kali Ayodhyamadhye Dasharatha navcha ek raja hota.

Gujarati—Prachin samayma Ayodhyama Dasharath name ek raja hato.

Kashmiri—Prayanis zamanas manz os tatiakh padsha rozan yas Dasharath now os.

Punjabi—Puran waqutan Ayodhyade bickh ek raja Dasharathnami hogozria hai.

Sindhi—Aghune zamaneme Ayodhyame Dasharath nale badhshah rahadhoho

Telugu—Puratankalomullo Ayodhalo Dasharatha rajadu undenu.

Tamil—Puratan Kalatil Ayodhyavil Dasharathan ennum arashan vashith vandhan.

Malayalam—Palaye kalatil Ayodhyail Dasharatha rajava ennu peridukudiyal vasichirunnu.

Kanarese—Puratana kaladalli Ayodhyayalli Dasharath nemba rajanu iruttiddanu.

A SHORT BIBLIOGRAPHY

Edited by E. J. Rapson—Cambridge *History of India.*

E. J. Rapson—*Ancient India.*

Published by Sri Ram Krishna Centenary Committee—*The Cultural Heritage of India.*

Zenaide A. Ragozin—*Vedic India.*

A. C. Das—*Rig-Vedic India.*

R. C. Dutt—*History of Civilization in Ancient India.*

Swami Abhedananda—*India and Her People.*

Swami Vivekananda—*Complete Works.*

K. T. Shah—*The Splendour That Was 'Ind.*

Winternitz—*History of Indian Literature.*

A. A. Macdonnel—*History of Sanskrit Literature.*

V. A. Smith—*The Early History of India.*

V. A. Smith—*Asoka.*

V. A. Smith—*The Oxfod History of India.*

V. A. Smith—*A History of Fine Art in India and Ceylon.*

G. E. Sen—*The Pageants of Indian History.*

D. R. Bhandarkar—*Asoka.*

D. R. Bhandarkar—*Some Aspects of Ancient Indian Culture.*

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Sir John Marshall—*Mohenjodaro and the Indus Valley Civilization.*

Sir John Marshall—*A Guide to Sanchi.*

Sir John Marshall—*A Guide to Taxila.*

Ernest Mackay—*The Indus Civilization.*

Max Muller—*Six Systems of Indian Philosophy.*

S. Radhakrishnan—*Indian Philosophy.*

S. Radhakrishnan—*The Hindu View of Life.*

S. N. Dasgupta—*History of Indian Philosophy.*

M. Hiriyana—*Outlines of Indian Philosophy.*

T. W. Rhys Davids—*Buddhist India.*

Edited by S. N. Das Gupta and S. K. De—*A History of Sanskrit Literature.*

H. C. Raychaudhuri—*Political History of Ancient India.*

Edited by R. C. Majumdar and A. S. Atlekar—*A New History of the Indian People.*

Edited by R. C. Majumdar and A. D. Pusalkar—*The History of Culture of the Indian people.*

K. M. Pannikar—*A Survey of Indian History.*

Pandit Jawaharlal Nehru—*The Discovery of India.*

A. K. Coomaraswamy—*History of Indian and Indonesian Art.*

James Fergusson—*History of Indian and Eastern Architecture.*

E. B. Havell—*Indian Architecture.*

Percy Brown—*Indian Painting.*

Percy Brown—*Indian Architecture.*

MaCrindle—*Ancient India as Described in Classical Literature.*

Baij Nath Puri—*India as Described by Early Greek Writers.*

Ratilal Mehta—*Pre-Buddhist India.*

U. N. Ghosal—*A History of Hindu Political Theories.*

U. N. Ghosal—*A History of Hindu Public Life.*

H. G. Rawlinson—*India—A Short Cultural History.*

H. G. Rawlinson—*Bactria.*

H. G. Rawlinson—*Intercourse Between India and the Western World.*

Sir P. C. Ray—*A History of Hindu Chemistry.*

David Eugene Smith—*History of Mathematics.*

Bibhutibhusan Dutt and Avadesh Narayan Singh—*History of Hindu Mathematics.*

B. N. Seal—*The Positive Science of the Ancient Hindus.*

B. K. Sarkar—*Hindu Achievements in Exact Sciences.*

Edited by Garrat—*The Legacy of India.*

Will Durant—*The Story of Civilization.*

G. S. Ghurye—*Caste and Class in India.*

G. S. Ghurye—*Culture and Society.*

Radha Kumud Mookerjee—*A History of Indian Shipping and Maritime Activities.*

P. C. Bagchi—*India and China.*

P. T. S. Iyangar—*Life in Ancient India.*

A. C. Bouquet—*Hinduism.*

Edited by Sir Richard Wnstedt—*Indian Art.*

R. K. Yagnik—*The Indian Theatre.*

R. Shamashastry—*Kautilya's Arthashastra.*

R. N. Saletore—*Life in the Gupta Age.*

S. K. Aiyangar—*Ancient India and South Indian Culture.*

Hiralal Kapadia—*History of Jain Canonical Literature.*

K. A. Nilkanta Sastri—*The Tamil Kingdoms in South India.*

K. A. Nilkanta Sastri—*South Indian Influences in Far East.*

K. A. Nilkanta Sastri—*History of India.*

The article on *Civilization* in the Encyclopedia Britannica.

A. A. A. Fyzee—*Islamic Culture.*

Kalidas Nag—*Art and Archaeology Abroad.*

Kalidas Nag—*India and the Pacific World.*

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