BRITISH CONTRIBUTIONS TO INDIAN STUDIES

SIR ATUL CHATTERJEE
AND
SIR RICHARD BURN

BRITISH CONTRIBUTIONS TO INDIAN STUDIES

Officials of various services, missionaries and archaeologists, with invaluable contributions and help from Indians, have studied the antiquities of India and made known a great literature, including works of philosophy, religion, drama and poetry, and translated much of it from Sanskrit and the Vernaculars. Ancient works of medicine, mathematics and astronomy have been studied, histories in the Persian languages have been made available, and much attention has been given to the Indian languages. In all this endeavour a most striking feature has been the co-operation of British and Indian scholars, which continues to this day.

BRITISH CONTRIBUTIONS TO INDIAN STUDIES

BY

SIR ATUL CHATTERJEE, G.C.I.E., K.C.S.I.

FORMER HIGH COMMISSIONER FOR INDIA IN THE UNITED KINGDOM

AND

SIR RICHARD BURN, C.S.I.

FORMER MEMBER OF THE BOARD OF REVENUE OF THE UNITED PROVINCES

Illustrated

Published for

THE BRITISH COUNCIL

by LONGMANS, GREEN & CO.

LONDON NEW YORK TORONTO

LONGMANS, GREEN AND CO., LTD.
OF PATERNOSTER ROW
43 ALBERT DRIVE, LONDON, S.W.19
NICOL ROAD, BOMBAY
17 CHITTARANJAN AVENUE, CALCUTTA
36A MOUNT ROAD, MADRAS

LONGMANS, GREEN AND CO.
55 FIFTH AVENUE, NEW YORK

LONGMANS, GREEN AND CO.
215 VICTORIA STREET, TORONTO

THIS BOOKLET IS PRODUCED IN
COMPLETE CONFORMITY WITH THE
AUTHORISED ECONOMY STANDARDS

CODE NUMBER: 11016

First Published 1943

PRINTED IN GREAT BRITAIN
BY BUTLER AND TANNER LTD., FROME

CONTENTS

ILLUSTRATIONS

Several of the above have been reproduced by courtesy of the Librarian of the India Office.

* Reproduced from *The Military Engineer in India*, Vol. II, by Col. E. W. C. Sandes, D.S.O., M.C., R.E., by kind permission of the Institution of Royal Engineers.

† Reproduced from *Great Men of India*, edited by L. F. Rushbrook-Williams, C.B.E., M.A., by kind permission of the proprietors of *The Times of India*.

BRITISH CONTRIBUTIONS TO INDIAN STUDIES

1. EARLY STUDIES

FIFTY years ago the President of the Royal Asiatic Society said: "If I were asked to say what in our own time is the distinguishing feature of Oriental research I should say that it was the endeavour to bring the remote East closer and closer to our own time, and to dispel as much as possible that mystery which used to shroud its language, its literature and its religion."

The first Englishman known to have visited India was Thomas Stephens or Stevens (1549?–1619), who after being educated at Winchester went to Rome and became a Jesuit. He sailed from Lisbon in April 1579 arriving at Goa six months later. He deserves notice as the first European to make a real study of Konkani, a dialect of Marathi, and as the composer of two poems in Marathi, one of which is still read. Missionary enterprise thus ranks historically before the needs of commerce in the study of things Indian.

Drake's voyage round the world from east to west terminated successfully in 1580, the year in which Spain absorbed Portugal. Three years later, a party of merchants sailing from London to Aleppo crossed Iraq and arrived at Ormuz, where they were arrested by the Portuguese and sent to Goa. They were released through Stevens's intervention and escaped, one of them surviving to return to England in 1591. In that year Sir James Lancaster set out on the first distant journey by an English ship from west to east and visited the Nicobars and Penang. Successful voyages by the Dutch stimulated British merchants, and Queen Elizabeth, at last overcoming her fears of antagonising the king of Spain, gave a charter to the first company of merchants trading to the East Indies. The commodities chiefly desired being spice and pepper, the two earliest voyages were directed to Sumatra, Java and the Moluccas, but when peace with Spain had been arranged a third voyage was made with the object of trading at Aden in Arabia and at Surat on the west coast of India.

A great variety of languages are spoken in India, including members of four great families: the Indo-European, the Dravidian, the Austric and the Tibeto-Chinese. As Stevens's work was unknown in England the early voyagers had no acquaintance with any of these. At Surat they would come into contact with Indians speaking Gujarati. Moslem rule in India had affected current usage, as many Moslems spoke Persian, which had

become the Court language, and some knew Arabic as the language of the Koran. From the fifteenth century the particular Indian dialect spoken between Delhi and Bareilly in the north had been enriched by a vocabulary drawn from Persian and Arabic and was known as Urdu (a Turkish word for military camp), and its use had spread as a *lingua franca* as Moslem power extended from the north to the rest of the peninsula. The mother tongue of the Mogul emperors was Turki, which is closely akin to Osmanli Turkish, and William Hawkins, who commanded the first expedition to Surat in 1608, had served in the Levant and knew Turkish. He was thus able to converse without an interpreter with the Emperor Jahangir when he made his way to Agra with a letter from King James I asking for permission to trade. Persian was also known by some Englishmen, owing to trade missions to Persia in the previous century. It is a language with a simplified accidence and easy to acquire with some facility. At the beginning, however, the British factors (commercial agents) must have relied on interpreters with whom they communicated in Portuguese, which was familiar to many persons engaged in oversea trade in Europe and was the common language in Bombay Island on its acquisition.

Studies of the vernaculars were doubtless retarded by the fact that at that period these languages contained practically no prose literature. Poetry was mainly religious. The literary vernaculars thus presented few attractions to men whose chief concern was with business affairs. Some servants of the East India Company, like Thomas Kerridge, President at Surat (1616–21 and 1625–8), William Methwold, who knew Dutch and French when he was first engaged in 1615 and spent two terms in India (1616–22 and 1633–9), and Peter Mundy (in India 1628–34, 1636–7), left correspondence, notes and journals which show that they must have been able to converse freely with Indians, and were interested in the religious and scientific knowledge and social customs of the country. The knowledge they acquired may have been shared by their contemporaries, but it remained largely buried in their manuscripts for centuries. Henry Lord, who went to India as a Chaplain in 1624, was encouraged by Kerridge to enquire into the religions of India. In 1630 he published the first account in English of " two forraigne sects in the East Indies, *viz.* the sect of the Banians, the Ancient Nation of India, and the sect of the Persees, the Ancient Inhabitants of Persia . . .". He gained his knowledge from local Brahmans and a Parsee who knew some English. His book was used by Thomas Herbert, and a translation into French (1667) was highly praised by Bernier.

Some other factors picked up a little knowledge of Indian languages. One Edward Bugden, who had been employed for some years in Bengal, " hath the language of the country and knowledge of navigation ". Of

Henry Gary, who became governor of Bombay in 1667, it was said : " No person ever governed with greater love of the natives, whose languages (with many others, both of Europe and Asia) he understands, speaks and writes in perfection." But they were often ignorant in this respect, and in 1671 the Company wrote to Madras :

" Wee are sorry to heare that wee have not anyone of our servants that can speak the language. Wee now purposely send you over some young men which wee would have instructed therein, as also to write it, that wee may not have to depend on accidentall persons and for the encouragement of those that shall atteyne thereto, so as to transact businesse with the natives, wee desire you to pay each of them £20 as gratuity, and that a school-master be allowed for teaching them."

It should be noted that the Dravidian languages spoken on the Madras coast are more difficult for Europeans to learn than Persian, Hindostani or the languages of Western India.

Two years later the Agent and Council were able to report that they had paid 50 pagodas (gold coins then current in Madras) to John Thomas as a language reward, " finding him very well introduced in the Gentue Language " (probably Tamil). In 1676 the council at Madras ruled that to get a gratuity a youth must be able to read and write a vernacular as well as to speak it.

These instructions must have been known to John Marshall, who went to India in 1668 and died there in 1677. He had been educated at Christ's College, Cambridge, where he took his B.A. degree in 1664. After nine months at Masulipatam on the east coast he moved to Bengal, and in addition to his duties as a servant of the Company began to collect information on religion, customs, medicine and astrology. He translated into English a " Hindostana " version by Madhusudan, a Bengali Brahman, of the Sanskrit *Saun-Bead* (*Sama Veda*), and also a Persian version of the Bhagavat Purana.

Like the work of many other pioneers, Marshall's notes and translations passed for a time into oblivion, though in 1872 Professor E. B. Cowell remarked that if they had been published in 1680 they would have inaugurated an era in European knowledge of India, being in advance of anything which appeared before 1800.

When in 1698 King William III granted a Charter to " The English Company trading to the East Indies " (a rival to the original Company), in pursuance of an Act passed a few months earlier, various philanthropic provisions appeared for the first time. Among these was an injunction that all ministers stationed in India " shall be obliged to learn within one year after their arrival the Portuguese language and shall apply themselves

to learn the native language of the country where they shall reside, the better to enable them to instruct the Gentoos (= Hindus) that shall be the servants or slaves of the same Company, or of their agents, in the Protestant religion."

Though exact information about the result of these measures is not recorded it is clear from a number of incidents that the knowledge of Indian languages by the Company's servants was increasing. Jafar Khan, the Governor of Bengal, declined to recognise the privileges granted by the Emperor Farrukhsiyar in 1715 to the Surman embassy, and when the members pressed for these, and " Mr. Feake disputed the point himself with Jaffer Cawn in the Indostan language, face to face . . . the whole Durbar was surprised."

In 1770 Mr. Logan of the medical service was deputed to join an expedition enquiring into the possibility of trade with Nepal as he " was perfect master of the language ". Commissioners who were to make local investigations for settling the amount of land revenue were to be taken from the Company's servants, " not by seniority, but by the free choice of the board, and were to be qualified for the trust by a knowledge of the Persian and Hindoostanee, and a moderation of temper ".

Administrative and judicial work made few demands on linguistic knowledge for a century and a half. The Governor and Council of Madras first executed judicial functions in 1666 over the very small area in which the Company had rights, and Courts were first established in 1670 in the Island of Bombay, where preference was given a few years later to a factor owing to his " understanding the languages (Portuguese and Marathi) ", though his legal knowledge was slight. In Bengal the Company acquired proprietary but not sovereign rights in 1698, 1757 and 1760, and its servants held courts there as ordinary landholders did.

When the right to collect land revenue in the whole of Bengal, Bihar and Orissa was granted by the Emperor in 1765, administration of justice remained with the Nawab of Bengal, subject in the case of collection of land revenue to some lax supervision. This arrangement continued till 1772, when Warren Hastings was armed with full powers " to make a complete reformation ".

Hastings was proficient in Persian. In fact it appears, from a letter addressed to him by Samuel Johnson on 20 March 1774, that Hastings had himself contemplated writing a Persian grammar. He had arrived in India in 1750 and soon acquired the dialects ordinarily spoken in Bengal. In 1759 he was appointed Resident at the Court of the Nawab at Murshidabad owing to his success in affairs and great proficiency in the language. Hastings was thus qualified by his own knowledge and his position to

perceive the needs of the Company's servants and to devise methods of meeting them. He had decided that in restoring or recreating a judicial system, the old civil laws of the people of India should be applied. Islamic law presented few difficulties as it was based on the Koran, commentaries were plentiful and it was easy to find interpreters. Sanskrit, in which the sacred legal texts of the Hindus were composed, was, however, almost unknown to Europeans and Muslims alike. In the sixteenth century Abul-Fazl had written a description of Hindu philosophy and beliefs in his great work, the Ain-i-Akbari or Institutes of Akbar, but he did not touch on Hindu law, though five centuries earlier Al-Biruni in his Arabic description of India had included two short chapters on the Hindu law of evidence and succession. Hastings, therefore, induced nine Brahman Pandits to compile in Sanskrit a compendium of Hindu law which was put into Persian by a Sanskrit-knowing Muslim scholar and then translated into English and published in 1776.

In 1781 he founded a Madrasa, or College, at Calcutta " for the study of the different sciences taught in the Mahomedan schools ", and although it remained for his successor, Cornwallis, to found a similar College for the study of Sanskrit at Benares in 1791, this had been facilitated by Hastings's example and precept. In the seventeenth century some Muslims who had inclinations towards mysticism had studied Hindu ideas, probably in Persian translations, but subsequently persecutions had followed and there was a natural soreness among Pandits which had added to the reserve adopted by them in regard to their most sacred scriptures. Sir John Shore (Lord Teignmouth), a life-long friend, has written that Hastings's example led to the general knowledge of Persian which was later attained by servants of the Company, and adds that though he did not himself explore the mine of Sanskrit literature he invited and liberally encouraged the researches of others. His personal influence removed reserve and distrust in the professors of Brahmanical faiths. His stimulus in other fields will be mentioned later, but mention should be made here of the delight with which he read Wilkins's translation of the Bhagavadgita. Writing to his wife he quoted from its precepts : " Let the motive be in the deed, and not in the event. Be not one whose motive for action is the hope of reward. Let not thy life be spent in inaction. Depend upon application." And in his introduction to the work, composed as he was leaving India, he said : " It is on the virtue, not the ability of their servants, that the Company must rely for the permanence of their dominions."

Hastings's preliminary work was greatly extended by Sir William Jones, who had been Vinerian Professor of law at Oxford and was appointed a judge of the Supreme Court in Calcutta in 1783. His attainments in Persian

have been described by Dr. Arberry in *British Contributions to Persian Studies*. Immediately after his arrival in India he founded the Asiatic Society of Bengal, which took all branches of Oriental studies into its researches. Jones himself began to work at Sanskrit so as to familiarise himself with the literature and the legal texts of the Hindus, and to translate them. His connections with Oxford and Oriental students on the continent had valuable results in bringing the riches of Oriental literature before a wider circle of people than had hitherto been attracted to them.

In 1771 he had published a Persian grammar in which he had received some help from I'tisam-ud-din, probably the first educated Indian to visit England. This work passed into several editions and was for many years the standard Persian grammar in English. He said himself, however, in his Preliminary Discourse before the new society of which he became the first President: "I have ever considered languages as the mere instruments of real learning, and think them improperly confounded with learning itself." Jones's taste in literature and grace in translation justify such a conclusion so far as he personally was concerned, but later knowledge of the valuable results which have flowed from linguistic research lead us to modify his conclusion regarding linguistic studies.

A Sanskrit grammar had already been published in 1779 by Charles Wilkins, the first Englishman to acquire a thorough knowledge of the language. In estimating the work done at this period it must be remembered that Company's servants were mainly engaged as "factors" or business men till 1765. After that date the recruitment of "writers" was increased, and youths were sent to India after ordinary school education. John Marshall, in the seventeenth century, was one of the rare exceptions to have had a University education. The introduction to Vol. I of *Asiatick Researches*, in which the proceedings of the Society were published, explains that:

"A mere man of letters, retired from the world, and allotting his whole time to philosophical or literary purposes, is a character unknown among Europeans resident in India, where every individual is a man of business in the civil or military state, and constantly occupied either in the affairs of Government, in the administration of justice, in some department of revenue or commerce, or in one of the liberal professions."

Wilkins's grammar was still being used 60 years after its production, and his translation of the Bhagavadgita (1785) with Jones's translations of Manu's ordinances on Hindu law, the play of Sakuntala by Kalidasa, the Gitagovinda of Jayadeva and the Hitopadesa aroused the greatest interest in learned circles throughout Europe. Goethe's verse, written in 1792, is an eloquent testimony:

Willst du die Blüthe des frühen, die Früchte des späteren Jahres,
Willst du was reizt und entzückt, willst du was sattigt und nährt,
Willst du den Himmel die Erde mit Einem Namen begreifen,
Nenn'ich Sakontala dich, und so ist alles gesagt.

At the time of his death, in 1794, Jones was engaged on a digest of Hindu and Muhammadan law. Among his other great services to Oriental studies he had devised the first scientific system for transliterating from foreign alphabets into the roman.

While Wilkins and Jones are entitled to the credit due to pioneers, Henry Thomas Colebrooke has been styled "the founder and father of true Sanskrit scholarship in Europe". Arriving in India in the same year as Jones, but having been educated privately, his first interests were to acquire a knowledge of Hindostani, to master the details of his official work and to suggest reforms in administration. Hindostani, he thought, had no written literature and Persian did not attract him, but by 1786 his natural bent towards mathematics and astronomy made him anxious to study Hindu researches in those subjects. At a later stage this led him to the discovery that certain astrological terms had been borrowed from the Greeks. Though he had no taste for Sanskrit literature and poetry, and rather despised students who preferred isolated translations from Persian or Sanskrit, he praised Wilkins's translation of the Bhagavadgita as giving information on the real opinions of the Hindus, and also admired the extent of Wilkins's acquaintance with Hindu thought.

In 1790 he was engaged on the important task of settling land revenue, which led him into enquiries about Hindu customs affecting cultivation and traditions regarding the practice of cropping. These led him on to other anthropological enquiries, and at last in 1793 to an attempt to "skim the surface" of all Hindu sciences in Sanskrit. Before long he was convinced that "the Hindu is the most ancient nation of which we have valuable remains and has been surpassed by none in refinement and civilisation." He now offered his first paper to the Asiatic Society of Bengal, *On the Duties of a Faithful Hindu Widow*, and decided to press diligently in his Sanskrit studies, and to consult with others before publishing anything, in order to avoid mistakes. This tone of caution persisted throughout his life and with his pertinacity added to the value of his work.

Sir William Jones had recognised that Hastings's *Code of Gentoo Laws* was imperfect, and planned a more scientific work on the model of approved authors. A Pandit named Jagannath Tarkapanchanan was in charge, and Jones himself was responsible for the translation. When Jones died in 1794 the work was entrusted to Colebrooke for completion. Lord Cornwallis had in 1791 sanctioned the foundation at Benares of a college "for

the cultivation of the laws, literature and, as inseparably connected with the two former, the Religion of the Hindus", an institution which has played a prominent part in the extension of Sanskrit studies and marks the beginning of co-operation in them between Indians and Europeans with fruitful results. Benares is regarded by Hindus as a sacred place and from ancient times had been the resort of learned Pandits and the home of many seminaries. Colebrooke's official duties at this time brought him to Mirzapur, sufficiently near Benares for him to benefit by the help of the learned men there and the manuscripts in their keeping. By 1797 he had finished his translation of the digest, which at once established his position as the best Sanskrit scholar of the day. The excellence of his relations with the Brahmans appears from the fact that they discussed even the most sacred texts of the Vedas with him and he was able to publish valuable essays on their religious ceremonies. The width of his reading and the capacity of his intelligence appear from studies on subjects so widely apart as the Hindu schools of law, Indian weights and measures, the origin of caste, a supplementary law digest, Sanskrit prosody and the Vedas and Indian theogonies, besides attempts to decipher ancient inscriptions. He also showed that he had overcome his early dislike of Sanskrit *belles lettres*.

Colebrooke's greatest feat was, however, his study of the work of Indian grammarians. The Indian system of grammar, of which Panini is the great exponent, was to collect the facts found in the structure and usages of Sanskrit and to arrange them and illustrate them by examples into nearly 4,000 grammatical rules. In Colebrooke's time and for long after, European scholars neglected the study of these intricacies, but they have since recognised their value and the skill of Colebrooke in making the terms used intelligible.

The interest shown by Wilkins and Colebrooke, and the foundation of the Benares College, reacted on the Indian scholars who had helped them and who now began to take fresh pride in the revival of their ancient literature. Printing in Indian characters became possible owing to the skill of Wilkins, who himself cut matrices and cast type for the alphabets of Bengali, Arabic and Persian, and Devanagari in which Sanskrit is written. The first Sanskrit work ever printed was Kalidasa's *Ritu-Samhara*, printed at Calcutta in 1792 in the Bengali character with a preface by Sir William Jones.

Up to the eighteenth century European scholars were generally agreed that Hebrew was the parent of all languages. Leibnitz began to doubt it and in 1713 asked Peter the Great to have collections made of all the languages spoken in the Russian Empire to facilitate comparisons and also to spread Christianity. By the end of the century a good deal of material

had been got together, and there was some information about the nature of Sanskrit and the similarity of Sanskrit words to Greek and Latin vocables. Sir William Jones wrote: "No philologist could examine the Sanskrit, Greek and Latin without believing them to have sprung from some common source, which, perhaps, no longer exists."

Colebrooke, in particular, had entered on this comparative study and had made extensive notes, not only on Sanskrit, Greek, Latin and the languages sprung from them, but also on the groups connected with German and Slavonic.

Interest in Sanskrit was further developed on the continent by Alexander Hamilton, who had been in the military service of the Company, and after his return to Europe had studied the manuscripts in the British Museum and at Paris. While in France he was detained as a hostage when war broke out after the peace of Amiens and taught Sanskrit to savants besides making a catalogue of manuscripts. One of his pupils was Friedrich Schlegel, the German poet, whose book on the Language and Wisdom of the Indians became the foundation of the science of language. But when this new idea of tracing the genealogy of tongues fired the imagination of European students it was still necessary for them to come to England to copy manuscripts and obtain the aid of Wilkins, Colebrooke and other pioneers in comparative philology. The fruitful and creative nature of their labours was specially praised by the Royal Prussian Academy of Science in a message to celebrate the centenary of the Asiatic Society of Bengal in 1884.

2. LANGUAGE STUDIES AND THE VERNACULARS (1770–1830)

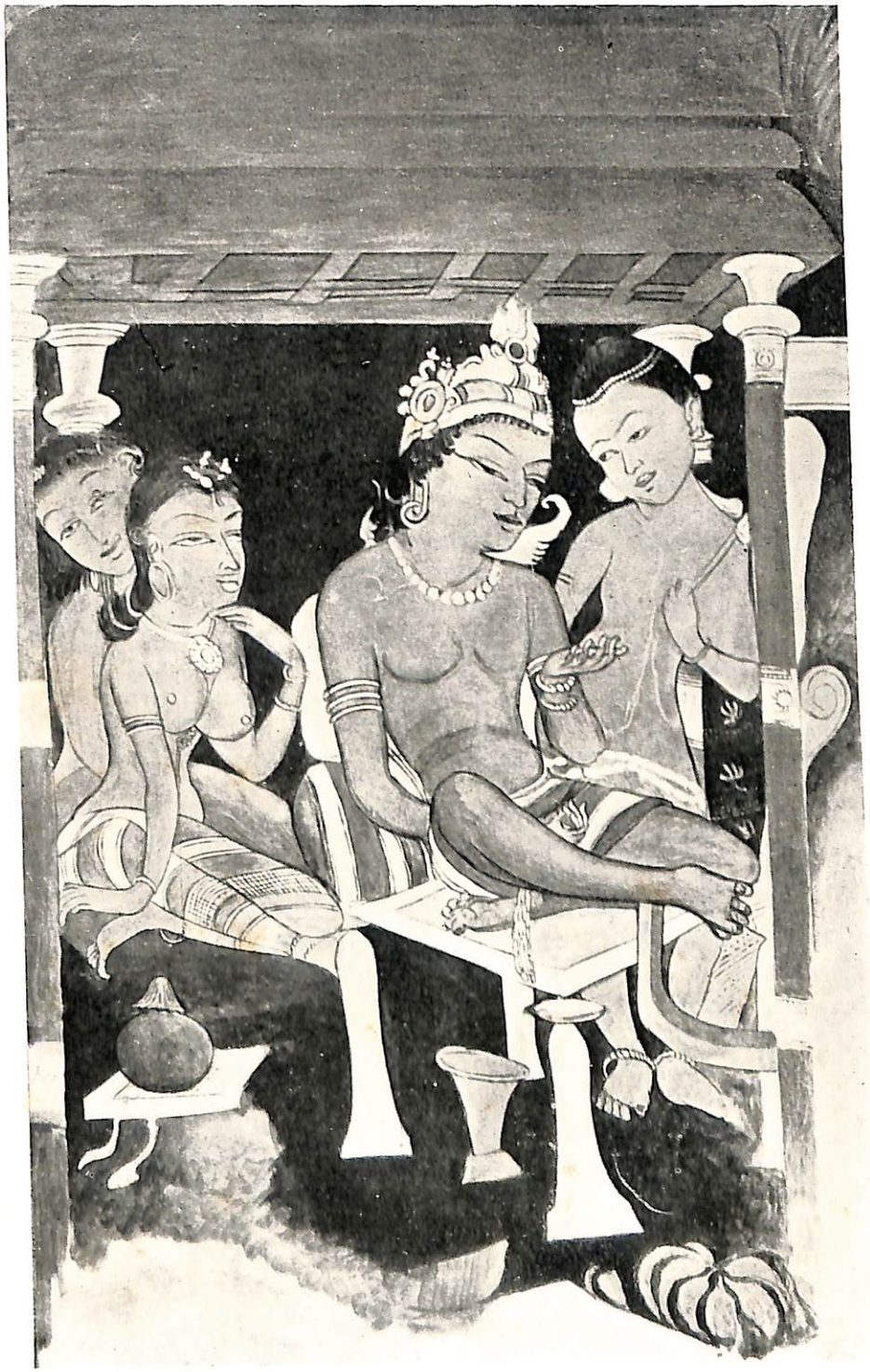
Specimens of Indian vernaculars and sketches of grammar had been published in Europe in the first half of the eighteenth century. In 1772 the first English grammar of Hindostani was published by George Hadley, who had served in the Bengal army, and it passed into several editions. The first dictionary, by J. Fergusson, appeared a year later. Great improvements, both in grammars and dictionaries, were made by J. B. Gilchrist, a Scot, who joined the Company's medical service in 1794 and rapidly acquired an accurate knowledge of the language. He published many works and was rather contemptuous of his predecessors, calling one of his grammars *The Anti-Jargonist*, in allusion to the fifth edition of Hadley's book, which was entitled *A . . . grammar of . . . the Jargon of Hindoostan*.

Nathaniel Halhed, who had been educated at Harrow and Christ Church, was the translator (from the Persian) of Hastings's Code of Gentoo laws.

In 1776 he published a Bengali grammar at the first printing press in North India, and it is notable that in his preface he drew attention to the similarity between Sanskrit and European languages. It was Halhed who first aroused Wilkins's interest in Sanskrit and Persian. The earliest Bengali-English and English-Bengali dictionary was printed anonymously at the office of the *Calcutta Chronicle* in 1793. Missionary enterprise, which had already stimulated interest in the study of Oriental tongues, now developed beyond the early stage at which missionaries acquired knowledge for their own use in preaching, and the name of William Carey stands out pre-eminently. Carey was a Baptist minister who began life as a humble cobbler with a zeal for the study of languages and the conditions of foreign countries. In 1792 he founded the Baptist Missionary Society and in 1793 was one of the first two British missionaries sent to India. His companion, John Thomas, had started life as a surgeon on a Company's ship and had left the service and become interested in evangelistic work between 1786 and 1792. Thomas, who had begun, though not with much success, to translate the New Testament into Bengali, helped Carey to attain the rudiments of the language during the voyage to India. On arrival, owing to the scantiness of their resources and official opposition to missionary work, they became assistants to an indigo planter, and Carey devoted all his leisure to the study of Bengali and Sanskrit. By 1796 Carey could read the *Mahābhārata*, one of the two great Sanskrit epics ; in 1798 he completed a Sanskrit grammar and had begun to compile a dictionary.

During all this period Carey was beset by difficulties, both financial and official. Thomas was a failure in all matters of business, and the factory in Carey's charge was deteriorating, owing to floods. Though his mission work was being better understood he was making no converts. In 1799 the factory was given up by its owner, and Carey was left with no resources but a slender allowance from England. At the same time four new members of the mission arrived in India, and in view of the opposition of the British Government to missionary work, Carey decided to move to Serampore, not far from Calcutta, which was then Danish territory. Here he was welcomed by the Danish governor, but the success that followed was due to Carey's wonderful patience, perseverance, and powers of organisation. One of the new helpers, named Ward, was a printer, and Carey was thus able to set up a press which was freer from restriction than would have been the case in Calcutta.

In 1790, Lord Cornwallis had offered rewards and facilities for learning languages to the young writers of the Company, though the study was not made compulsory. Early in 1799, Dr. Gilchrist, who has been referred to above, was employed to teach junior officials Hindostani and Persian,



Painting (Court scene) in the Cave Temples at Ajanta

1. Sir William Jones, 1746–94 (*Portrait by Sir Joshua Reynolds*)
2. Henry Thomas Colebrooke, 1765–1837
3. Warren Hastings, 1732–1818 (*Portrait by Sir Joshua Reynolds*)
4. William Carey, D.D., 1761–1834
5. James Prinsep, 1799–1840 (*from a Medallion Engraving*)
6. Major-General Sir Alexander C. Cunningham, 1814–93

and eighteen months later five senior officials were deputed to examine the students. Those who had been trained by Dr. Gilchrist were generally found to have made much better progress than those who had relied on private tuition, and Lord Wellesley, who had taken much interest in the experiment, decided to found a College at Fort William in Calcutta. In his minute on the subject he set out that " the civil servants of the English East India Company can no longer be considered as the agents of a commercial company ; they are, in fact, the ministers and servants of a powerful sovereign." And the preamble of the Regulation by which the College was established declares that these men who came out as youths aged 16 to 18, without special preparation " should possess a competent knowledge as well of the laws, government, and Constitution of Great Britain, as of the several native languages of Hindoostan and the Decan, and of the laws, usages and customs of the provinces which the said civil servants respectively may be appointed to govern."

Lord Wellesley's scheme, which involved the construction of an expensive building, was disallowed by the Directors, who decided to found an East India College at Haileybury to give their selected recruits a good general education combined with instruction in the rudiments of Oriental languages, while the Fort William College was to complete the training. Haileybury was not opened till 1806, and the college at Calcutta thus remained the sole training institution for six years. At its opening in 1800 Colebrooke was in charge of Sanskrit and Hindu law, but merely directed the studies and examined. Gilchrist was professor of Hindostani and Francis Gladwin of Persian, with Indian assistants in all departments. Early in 1801 Lord Wellesley agreed to the appointment of Carey as lecturer in Bengali and Sanskrit. Later he also taught Marathi, and his work continued till 1831.

A prominent difficulty existed in the fact that no prose works in the vernaculars were then readily available, and Carey's personality, backed by Gilchrist, was successful in moving the right class of Indian assistants to produce first translations and then original prose works in their own languages. Carey's translation of the New Testament into Bengali appeared in 1801, and of the Old Testament in 1802–9. His Bengali grammar, which was an improvement on Halhed's and took account of the relation to Sanskrit, also appeared in 1801, and made full use of dialogues, written in good colloquial Bengali, to serve as illustrations. A second Bengali vocabulary was compiled by H. P. Forster, a civil servant, in 1799–1802. This work in two large quarto volumes, beautifully printed at Calcutta, is in two parts—English-Bengali and Bengali-English—with several equivalent meanings assigned to words. In his preface Forster points out that

there had been no native Bengali grammarian, so that orthography was unsettled. He also supported the plea already made by Halhed that the British Government should adopt Bengali as the official and Court language instead of the debased Persian in actual use. As no other Bengali dictionaries existed, even in Bengali, this work helped to standardise the language in which Carey's Pandits wrote and made their translations. Carey, himself, some years later (1815–25) published a massive dictionary with 80,000 words, which included compounds, privatives and attributives, the components being easily distinguishable.

Carey's own Bengali prose was simple and close to common speech. The Pandits whom he inspired were more inclined to follow the ornate style of Persian and Sanskrit prose. Ram Ram Basu, the first writer of modern Bengali prose, knew Persian and Arabic as well as Sanskrit. His early work was loaded with Persian terms like the Bengali translations of legal enactments made by Jonathan Duncan, H. P. Forster and N. B. Edmonstone some years earlier. Mrityunjaya, the head Pandit, developed a more dignified style than Carey, but erred by using an excess of Sanskrit words and thus set a standard which for many years was pernicious. In one of his works he extolled Sanskrit as the best of all languages, but he preferred to write in Bengali as it was the best of modern languages because of the preponderance of Sanskrit in it. Later, and to a considerable extent owing to the study of English literature, style became simpler and education was facilitated by the production of prose works of general literature. Carey's Bengali work was valuable, not so much as literature, but for the qualities of simplicity, precision and directness. His object was to be understood, not to be admired for nobility of style.

The Hindostani teachers translated from Persian, Arabic and Sanskrit, using the Hindi dialect current in the country between Delhi and Bareilly, known as the Khari Boli or standard dialect. In the early books, Persian and Arabic words were freely used when the original was in one of those languages, and this form is often called Urdu, while in the other form Sanskrit words were repeated from the original text, and the version was known as Hindi.

All these works were printed at the mission press in Serampore, which by 1816 had produced specimens of 33 languages, increased to 40 by 1832 ; and had printed Bengali classics. A monthly periodical called *Digdarshan* and a weekly newspaper, the *Samachar Darpan*, started in 1818, laid the foundations of Bengali vernacular journalism and had immediately many rivals and imitators among educated Bengalis.

Joshua Marshman, one of the four new missionaries, and later his son, J. C. Marshman, were the moving spirits in journalism, but the father later

also made an abstract of Carey's rather unwieldy dictionary, while the son became a voluminous writer of history and law-books, besides compiling an English-Bengali dictionary to supplement his father's abridgement of Carey's.

A parallel to this stimulus of Bengali literature occurs in the case of Marathi, a vernacular of Western India, which existed chiefly in the form of poems, ballads and local chronicles. Carey's grammar of the Mahratta language (1805), and the translation of St. Matthew's Gospel and of two books of fables followed by the Scottish Missionary Society's translation of the Bible, all stimulated the growth of a vernacular literature ; a School-book and School society was founded by the Governor, Mountstuart Elphinstone, in 1820.

In the extreme south of India, books in Tamil had actually been printed by the Catholic missionaries as early as 1677, and British contributions to the study of Dravidian languages begin much later.

The English College was opened at Hertford in 1806 and moved to new buildings at Haileybury in 1809. Until its close in 1858 when the last students passed out, it trained probationers in science, classical and general literature, history and political economy, general polity and law, besides the oriental departments which provided for Hindu literature and the history of Asia, Arabic, Persian and Hindostani, Sanskrit, Bengali, Telugu and Marathi. The teachers employed there became authorities on the languages they taught, both classical and modern, and contributed to their scientific study. The East India Company also maintained military colleges for officers to be employed in their army at Addiscombe, near Croydon, from 1809 to 1862, and for a shorter period at Baraset near Calcutta, in which vernacular languages, chiefly Hindostani, were taught. At the beginning of the nineteenth century these were the only institutions maintained by Europeans for teaching subjects connected with Indian culture except the classical languages of Persian and Arabic.

For the results which were obtained the British students were helped from the start by the co-operation of Indians in whom a fresh spirit of research had been evoked. Jagannath Tarkapanchanan, who died in 1806 at the reputed age of 111, had assisted Sir William Jones and J. H. Harington (1764–1828), who was professor of law at Fort William College. Lallu Lal, under the inspiration of Gilchrist, produced at the College in 1803 a book called the *Prem Sagar* or History of Krishna, which became the model for Hindi prose, and Mir Amman at the same place translated a Persian tale in 1804 into Urdu as the *Bagh o Bahar*. Even in the mechanical work of printing Wilkins, Carey and Marshman owed much to a Bengali blacksmith.

3. EARLY HISTORICAL RESEARCH

Indian literature is lacking in critical historical works such as those of Herodotus or Livy. Nearly all the literary accounts till after A.D. 1000 are derived from the writings of foreigners in Greek, Latin or Chinese. What has been recovered from inscriptions, coins and casual references in literary works will be described later. As Sir Alfred Lyall wrote :

> For the stories of men and of days that are gone,
> Of towns now dust, of a vanished race,
> Are but old names carved in the dungeon stone.
> They lived, and laboured, and left their trace.

On the other hand Muslims in India composed not only annals but works of real historical value in Arabic or in Persian, and these at once attracted the attention of British students. Alexander Dow, who had gone to the East as a sailor and became a colonel in the Company's army, published in 1768 a translation of part of Firishta's history, a valuable work, composed about 1612, which describes the history of the Delhi emperors to the time of Akbar and gives in particular the history of the lesser kingdoms which lay chiefly in the south where Firishta lived. In a second edition (1770–2), Dow carried on the account of Hindostan up to the reign of Shah Alam, and thus compiled the first history of India in English.

Dow's notes on the administration by Indian powers at the time he wrote are also valuable. Jonathan Scott, also a soldier, who had been Persian secretary to Hastings, translated the rest of Firishta (1794), and had previously published the memoirs of Iradat Khan which describe the successors of Aurangzeb (1786). From 1802–5 he was professor of Oriental languages at the Royal Military College, and he was also for a short time at Haileybury. Firishta's work was completely translated by John Briggs (1829), who belonged to the Madras Army, accompanied Sir John Malcolm to Persia in 1810, served in important civil posts in India and became an F.R.S.

A still more important historical work was translated by Francis Gladwin, who published at Calcutta in 1783–6 the Ain-i-Akbari, or Institutes of Akbar, the great Mogul emperor, who was born just 400 years ago and whose reign was almost contemporary with that of Queen Elizabeth. This work is an exhaustive description of the Mogul empire and is also remarkable for its account of Hinduism. Its explanation of Akbar's regulations for collection of land revenue was of great value to the early British administrators. Gladwin's translation was not superseded for nearly a century, when the Persian text was printed by the Asiatic Society of Bengal and a revised translation with notes was made by H. Blochmann (Vol. I.

1873) and Colonel H. S. Jarrett (1891–4). Gladwin was the first professor of Persian in the College of Fort William and was a distinguished worker on Persian literature.

A smaller work, but one of considerable value for a much disputed period, is the History of the Rohillas by Charles Hamilton (1786), which was partly compiled from a Persian account by a Rohilla. Hamilton was a good scholar in both Persian and Arabic, and his translation of the Hedaya (1792), a guide to Muhammadan law, had a great reputation.

A rival to William Carey in his capacity to learn and use Oriental languages was John Leyden (1775–1811), the poet of the Border and friend of Sir Walter Scott, who wrote a memoir on his life. After making his reputation as a poet and authority on Border minstrelsy, and having been accepted as a Presbyterian minister, he qualified as a doctor and went to Madras in 1803. Within two years he was studying Arabic, Persian, Hindostani, Marathi, Sanskrit, Armenian and four main Dravidian languages. During a period of sick leave, which he spent in Malaya, he took up the languages of the Malay Archipelago. Arriving at Calcutta in 1806 he was too ill to do regular work, but wrote on the languages he had learnt and was made Professor of Hindostani in the Fort William College, later holding various civil appointments. At this period he began to translate from the original Chaghatai Turki the Memoirs of Babur, one of the most lively and attractive autobiographies in any literature, and of great importance for the beginning of Mogul rule in India. When Leyden died in 1811 at Batavia, during Lord Minto's expedition to Java, the work was not complete, but it was revised and finished by William Erskine in 1816 and published in 1826.

Sir William Jones had contemplated publishing a volume of *Asiatick Miscellany* every year under the auspices of the Society which he had founded, but the Society had no funds and the first volume, called *Asiatick Researches*, did not appear till 1788. By 1797 five volumes had appeared and the demand for the work was so great that at least three pirated editions appeared in London in the next few years. A carefully translated French version of the work was introduced by the editor as " la plus riche collection de faits qui existe sur l'Inde, ce pays qui attire les premier regards de ceux qui veulent étudier l'histoire des hommes ". By 1839 twenty volumes had been published in fifty-four years, but the desire for more rapid and regular production had led to the establishment of other series. One of these, started in 1829, was called *Gleanings in Science*, and this included a précis of the monthly proceedings of the Society. In 1832 it was taken over and became the *Journal of the Asiatic Society of Bengal*, and instead of being a purely scientific journal began to include literary, archaeological and ethnographical

articles also, and superseded the older *Asiatick Researches*. In its pages appeared papers of the greatest value for elucidating the history and culture of India, most of them being the work of officials in all branches of the Company's services.

A Literary Society was founded in Bombay in 1804 by Sir James Mackintosh, and a similar Society in Madras by Sir John Newbolt and Mr. B. G. Babington. In England the Royal Asiatic Society was founded in 1823, H. T. Colebrooke being the moving spirit and the first Director. Like the Society of Bengal it began by publishing contributions in volumes called " Transactions ", of which three appeared between 1827 and 1834, but from the latter year a regular journal was issued.

The Literary Society founded in Madras began to issue a quarto volume of *Transactions* in 1827, which was changed to a *Journal of Literature and Science* from 1834, when the Society became an auxiliary of the Royal Asiatic Society.

The recovery of the ancient history of India from inscriptions and coins began with the publication in 1785 by Wilkins of a copper-plate inscription found in Monghyr and a pillar inscription from Dinajpur in Bengal. It is a measure of the lack of knowledge current at that time that Wilkins assigned the former of these to the year 23 B.C., though it is now known that it was issued by a Pala ruler of Bengal early in the ninth century of the Christian era. Sir William Jones's acuteness recognised that the ruler was a Buddhist. He also identified the Sandracottus of Megasthenes with the Chandra Gupta who is the ruler mentioned in a Sanskrit play called the Mudrarakshasa.

Research for a time proceeded on wrong lines, as too much reliance was placed on the Puranas or collections of " old-world " legends. These, no doubt, contain elements of historical truth, but they have been moulded and added to as the Saxon Chronicle was in England down to the reign of Stephen, though for a much longer period. Some of their later statements have now been harmonised with independent evidence, but in the early stages they were misleading. Great labour has since been devoted to their study by F. E. Pargiter, a Bengal civil servant, (1852–1927) whose *Dynasties of the Kali Age* (1913) and *Ancient Indian Historical Tradition* (1922) have sifted the material but await help from sources hitherto lacking. While the recovery of lost history demands imagination, this must be disciplined if it is not to go badly astray.

Four notable scholars had been attached to the Mint at Calcutta. Forster and Leyden have already been mentioned. The third was H. H. Wilson, who went to India in 1808, was secretary to the Asiatic Society for twenty-two years and became a most distinguished Sanskrit scholar. In 1814 the

Society founded a museum and members began to send coins and copies of inscriptions.

Interest in the coins of India was aroused by Colonel James Tod's paper in the journal of the Royal Asiatic Society, 1827, on Greek, Parthian, and Hindu medals found in India. He had identified coins of Apollodotus and Menander, whose money is mentioned in the Periplus (first century A.D.) as still current at Broach. Wilson, in 1831, published in *The Journal of the Asiatic Society of Bengal* a description of some of the Hindu coins in the Society's cabinet, and in preparing his paper was assisted by James Prinsep, who was the fourth notable scholar employed in the Mint. Prinsep (1799–1840) had spent ten years at Benares, during which his energies had been devoted to scientific enquiries, engineering and building operations, the formation of a literary society and the establishment of a press. In early life he had studied architecture and he was a capable artist. On his return to Calcutta his association with Wilson turned his attention to Sanskrit and in particular to epigraphy and numismatics. Bactrian and Indo-Scythian coins were being received in large numbers, and numerous papers by him appeared in the *Journal*, illustrated by plates for which he had himself made the drawings and part of the engravings. In 1833 he recognised the name of Kanishka on a coin and identified this ruler with the king of that name in the dynastic lists of Kashmir published by Wilson a few years before.

Progress was at first hampered by the inability to decipher the alphabets used in the oldest inscriptions on stone or copper plates or coins. From one of these, which used to be known as Indian Pali and is now called Brahmi, the alphabets of modern vernaculars are derived. The oldest examples extant are found in the inscriptions of Asoka (*ca.* 250 B.C.) and on ancient Hindu coins (*ca.* 150 B.C., *vide* coin plate no. 2). Changes in the script had taken place by the time of the Kushan rulers in N. India (first and second centuries A.D.), and still greater changes in the era of the Gupta rulers (fourth and fifth centuries A.D., *vide* coin plate no. 3). The knowledge of these alphabets had been lost in India. From about the ninth century A.D. the resemblance to modern forms is closer. Wilkins had not only read inscriptions of the last type, but had also made progress in reading inscriptions of the Gupta period, though his work had been neglected for nearly fifty years. In 1834 attention was called to this by Lieut. T. S. Burt, who recognised nearly half the alphabet. Captain Troyer, Dr. W. H. Mill and Prinsep were able, by 1838, to translate a number of the important Gupta inscriptions and to read some of their coins. About the same time, Mr. W. H. Wathen read some rather later copper plates from Gujarat. A period of fifty years was to elapse before the chronology was fixed,

and these inscriptions were at first placed much earlier than their true date.

The Asoka inscriptions still baffled enquirers, and Prinsep was the first to realise that their alphabet was Indian, and not debased Greek as had sometimes been suggested. In 1837, while examining some short inscriptions in a similar character, he realised that they ended in the word *dānam* or "a gift" and that the preceding letter must be *s* which he had found to be the mark of the genitive on certain coins. Having in his memory a full acquaintance with the shapes of the ancient alphabets he was able almost at once to make a complete key and to read many of the Asoka inscriptions of which he had copies or rubbings. That key was the beginning of a series of discoveries of great importance relating to the language and chronology of ancient India. One of the Asoka inscriptions was found by Prinsep in 1838 to contain the names of several Greek rulers, a synchronism of the greatest value in fixing the period of Asoka.

The other alphabet, once known as Bactrian Pali, and now called Kharoshthi, presented greater difficulties. It is used on some of the coins of the Bactrian Greeks and of the Kushans (coin plate no. 1), who ruled in Northern India early in the Christian era, and also in inscriptions in the North-West Frontier Province. Speculation as to its nature variously assigned it to corrupt Greek, corrupt Brahmi and the Pahlavi or ancient Persian script. Charles Masson, a deserter from the British army, made extensive tours in Afghanistan in 1833–7, exploring ancient mounds and collecting thousands of coins. In 1835 he pointed out to Prinsep the groups of symbols on the coins which he thought represented the names of the Greek rulers, recorded in Greek on the obverse side of the coins, and Prinsep soon recognised that these names must be read from right to left instead of from left to right as in Brahmi. By 1838 he had realised that the language must be akin to Sanskrit and soon began to interpret some of the letters with certainty.

In these identifications he was much helped by Alexander Cunningham, then a lieutenant in the Bengal Engineers, who had been assisting him in the decipherment of ancient Hindu coins as early as 1836. Later contributions were made in England by Edwin Norris in the *Journal of the Royal Asiatic Society* (1846), who is perhaps better known for his decipherment of cuneiform inscriptions. The reading of this alphabet has been the means not only of recovering historical details from inscriptions written in it, but also of understanding documents found by Sir Aurel Stein and others in Central Asia in the present century. Some of these documents contain texts which had not survived in India, while others have been found to be written in long-forgotten languages.

Masson's travels in Afghanistan had yielded more than 30,000 coins and other antiquities, besides topographical notes of value for fixing ancient sites. In 1841 these results were summarised by H. H. Wilson in *Ariana Antiqua*, which not only dealt with many series of Indian coins, but also described the *stupas* or mounds of earth and brick or stone erected over sacred relics in many parts of India and Afghanistan.

4. ARCHAEOLOGY

Before the history of India up to the year A.D. 1200 could even be sketched much research was needed in the absence of regular Indian annals, which existed only for short periods and for limited areas. Wilkins had read a few inscriptions, and Prinsep's deciphering of Brahmi and Kharoshthi alphabets enabled further progress to be made in collecting information from inscriptions and coins. To James Tod (1782–1835) belongs the credit of compiling from such material and from tribal lays and traditions *The Annals and Antiquities of Rajasthan, or the Central and Western States of India* (1829–32). A much wider field was covered by Sir Alexander Cunningham (1814–93), a son of Allan Cunningham, the author and friend of Sir Walter Scott, who had obtained the Indian cadetship for Alexander. Going to India in the Bengal Engineers, he filled many appointments and saw much military service, retiring as a major-general in 1861. In his early days he helped Prinsep in the decipherment of coins and contributed to the elucidation of the Kharoshthi alphabet. He also assisted a Major Kittoe, who for a few years from 1842 was helping the Government to survey ancient sites. Cunningham's careful record of the find spots of ancient coins before railways had facilitated travel has made it possible to attribute many series to the localities ruled over by dynasties whose names have completely perished. In 1862 he was made Archaeological Surveyor to the Government of India and some years later became Director General of the Archaeological Survey of Northern India, a post he held till 1885. These posts gave him greater opportunities for the exploration of ancient sites and the collection of inscriptions and coins. The results of his work fill twenty-three volumes of reports compiled by him and his assistants which are full of descriptions of ancient sites and buildings, facsimiles of inscriptions and coins and their interpretation, and sketches of the history of many rulers gathered from these particulars.

Cunningham was particularly interested in the classical accounts of Alexander's expedition to India and in the records of the Chinese pilgrims in the fourth (Fa Hian), fifth (Sung Yun) and seventh (Hwen Thsang) centuries which have been translated from Chinese. In 1871 he published his

Ancient Geography of India, which aims at describing the divisions of India according to the oldest records and identifying sites of towns and villages mentioned by the classical writers and the Chinese pilgrims, and also contains much information of value on other historical matters. His later numismatic work covers the whole field from the time of the Bactrian Greeks till the mediaeval period and the Muslim conquest in the thirteenth century.

A contemporary who made many discoveries in the same field of numismatics was Edward Thomas (1813–86) who extended his enquiries in other fields, particularly in the coinage minted by Muslims in India and adjacent countries. He collected and republished (1858) many of Prinsep's essays, adding notes where Prinsep's conclusions needed correction in the light of fuller information. V. A. Smith (1848–1920) carried on similar work, particularly on the Gupta coinage and the early mediaeval period.

References to India by Greek and Latin writers have been made accessible to students by J. W. McCrindle (1825–1913), who was in the educational service in India and published translations in the *Indian Antiquary* (1876–84) and also *The Invasion of India by Alexander* (1893) and *Ancient India*, as described in classical literature (1901).

The collection of materials for the history of Southern India began earlier than in the north. Colin Mackenzie (1753 ?–1821), who was in the Madras Engineers, began his researches about 1783, and at a later date became Surveyor General of Madras and then of India. His valuable collections, which included MSS., plans, drawings, antiquities, coins, statues, etc., were later acquired by the East India Company. He was followed by Sir Walter Elliot (1803–87) who had a distinguished career as a civilian and in his private capacity was known for his interest in natural science (helping Darwin and Owen with specimens), in archaeology and in history. His work on the coins of Southern India is still the most complete manual on that subject, and the British Museum owes to his foresight the wonderful collection of marble Buddhist sculptures from Amaravati. A. C. Burnell (1840–82) was another Madras civilian of wide linguistic and historical learning whose rich collection of Sanskrit MSS. passed to the India Office Library. Besides many scattered papers he wrote *Elements of South Indian Palaeography* (1878), which is a key to the Dravidian inscriptions from the fourth to the seventeenth centuries, A.D., and he collaborated with Sir H. Yule (1820–89) in *Hobson-Jobson* (1886), a glossary of Anglo-Indian colloquial terms.

Archaeological work in Western India was systematised by the appointment of James Burgess (1832–1916) as archaeological surveyor in 1874, and seven years later Southern India was added to his charge. He had been in India since 1855, engaged in educational work. As an archaeologist he is chiefly remembered for his work on the Cave Temples of India, most of

which are in the Bombay Presidency. In 1872 he founded the *Indian Antiquary*, a journal which survived for many years and was perhaps the first to publish mechanical reproductions of Indian inscriptions. Its contributors included most of the workers in all fields of Indian studies. While Cunningham's reports contain many valuable plans and discussions of style, James Fergusson (1808–86) was the first student to produce a really scientific study of the subject. Having acquired a competence in the manufacture of indigo, he began in 1835 to make long tours in India which extended till 1845, drawing and measuring the ancient monuments. His object was to arrive, by study of these, at criteria of style which would distinguish the period of construction. He was not an epigraphist though he recognised that inscriptions were an essential part of the enquiry. The chief value of his work lies in the fidelity of his descriptions. A paper which he contributed to the *Journal of the Royal Asiatic Society* in 1843 on the rock-cut temples of India led the East India Company to send an artist to copy the wonderful frescos in the Ajanta caves. His historical studies of architecture took him to many other countries and were developed in a number of works, of which the *History of Indian and Eastern Architecture*, *Tree and Serpent worship in India*, and *The Cave Temples of India* (with Burgess) should be mentioned here. The first of these is an expansion of only one volume of *A History of Architecture in all Countries*. Largely owing to the interest thus aroused steps were taken in several provinces to extend recording by drawings or photographs of the principal archaeological buildings of India.

Cunningham was succeeded in 1886 by Burgess, who retired in 1889, when the post lapsed owing to financial stringency, though advisers were retained in several provinces. In 1902 Lord Curzon remodelled the whole department under a Director-General with assistants in various parts of India, and official research was greatly stimulated, while government scholarships were instituted to train students, who were chiefly Indians. This new organisation, under the direction of Sir John Marshall, a distinguished scholar and trained archaeologist, has conducted exploration and excavation, the results of which have been described and illustrated in a magnificent series of annual reports (from 1902) besides many memoirs. One entirely new field of study was opened by the discovery (in 1924) in Sind and in the Punjab of an early civilisation in Indian territory of which nothing had previously been known, and which dates back to 3000 B.C. or earlier. The first traces of this culture were found by the late Rakhal Das Banerjee, who was then an assistant in the Department, and the results are still in process of publication. It includes seals with a pictographic writing the decipherment of which has not yet been achieved.

Besides further exploration of sites already well known, new ground has

been broken by the excavation of minor towns and villages with valuable results in the elucidation of the ancient history of India.

A very important function of the new Department has been the conservation of ancient buildings both Hindu and Muslim. Tombs, temples and mosques which had been pillaged, mutilated or even occupied as dwellings, offices and stores, have been cautiously but efficiently restored, and in years of financial stress the cost of conservation has had precedence over the supply of funds for exploration. By the *Ancient Monuments Preservation Act* (1904) the Government has extensive powers to safeguard buildings in private possession which are not used for religious observances, and great progress has been made by agreement with the owners or by purchase to repair and maintain such monuments. Advice is given and also financial assistance where necessary in the case of temples and mosques still in use, with satisfactory results as educated opinion makes itself felt in the desire to conserve such buildings.

The scheme of scholarships and training has succeeded so well that the Department is now in charge of an Indian archaeologist with a staff which is practically all Indian.

Official aid to epigraphy had begun in 1883, when J. F. Fleet (1847–1917), a Bombay civilian who had already contributed many articles on inscriptions, was appointed to prepare a volume on the Gupta Inscriptions (fourth to seventh centuries A.D.). Three years later an epigraphist was employed to study the epigraphy of the Southern Indian dialects. Since 1888 a quarterly journal, *Epigraphia Indica*, has been issued which contains reproductions of important inscriptions with their interpretations, and various other series have been issued.

To estimate the progress made by these researches it is useful to compare the knowledge of Indian ancient history a century ago with the present state. Greek and Latin writers had given the names of a few of the Greek rulers in Bactria and the Sandracottus of Megasthenes had been recognised as the Chandra Gupta who drew Northern India under his sway after Alexander's retreat. His dynasty, the Maurya, is recorded in the *Puranas*, and the date of his grandson Asoka was approximately fixed, as one of his inscriptions mentions rulers in Greece and the Levant whose dates are known. Since 1840 the names of other Greek rulers have been discovered on coins and some progress has been made in arranging the series by considering types and style, but until inscriptions are discovered exact history is still impossible.

A good deal more is known about the Saka rulers who, after occupying Bactria about 135 B.C. and Seistan (Sakastena) broke into Sind and pushed up the Indus valley to Gandhara (South-east Afghanistan and Peshawar) and were later succeeded by Pahlavas from Persia. One of the latter was Gondo-

phares who, according to legend, caused the martyrdom of St. Thomas; the Saka and Pahlava rule of the Punjab lasted till about A.D. 50.

Some of the coins read by Prinsep are now known to have been struck by a dynasty called the Kushans, a tribe from Central Asia about whom a good deal has been gathered from Chinese annals, besides the information from their inscriptions and coins. They held power in the Punjab and Ganges valley during the first and second centuries A.D. and are mentioned in the *Rajatarangini* or chronicle of the Kings of Kashmir, which has now been shown to be accurate for about two centuries, but preserves traditions of much earlier date, though its early chronology is unreliable. A line of Satraps, whose names suggest Scythian or Parthian origin, ruled from the second to the fourth centuries A.D. in Western India, probably at first in subordination to the Kushans, and their history has been recovered almost entirely from their inscriptions and the coins which Prinsep had begun to read. Ptolemy indeed mentions a Tiastanes ruling at Ujjain who must be identified with Chashtana of the coins.

These Western Satraps were in conflict with the Andhras, a people mentioned in early Sanskrit literature (possibly 500 B.C.) and again in the edicts of Asoka (*ca.* 250 B.C.), and also included in the Puranas. They began to rule on the east coast of India and spread across the peninsula south of the Vindhyas, till about A.D. 125 they broke into the country north of the range as far as Gujarat and Central India. This dynasty is one of the few in which the lists of rulers given by the Puranas can be checked by coins and inscriptions over a long period. In the study of the material relating to the Andhra dynasty Vincent Smith (1848–1920) and E. J. Rapson (1861–1937) did excellent work.

After the Kushans the history of Northern India is less certain till the emergence of the Guptas, who use a new era, the beginning of which was variously dated between A.D. 78 and A.D. 319, till Fleet established the latter date fifty-five years ago. Though the Puranas merely give the name of the dynasty and later literature has references of doubtful value to one or two of the line, their history for more than two centuries has been recovered from their coins and inscriptions which show that their rule covered Northern India south of the Punjab from the sea to the Himalayas, with at least one raid into Southern India. Fa Hian passed through their empire in the fifth century, and though he does not give the name of the ruler he testifies to the stability of their realm. Edward Thomas and Vincent Smith made the first complete studies of their coinage, and Fleet of their inscriptions.

A struggle ensued between the Gupta empire and the Ephthalites, or White Huns, who entered Sind in the fifth century and whose early history is recorded in Chinese works and by a post-classical writer, Ammianus. They

penetrated to Bengal and then were repulsed and moved to Kashmir, where some account of them has survived in the chronicle. Sir A. Cunningham has woven together, largely from their coins, an account of them.

In the first half of the seventh century a ruler arose in the United Provinces whose early career is described in a Sanskrit historical romance, and who was also visited by the Chinese pilgrim Hwen Thsang (*ca.* A.D. 640). This was Harshavardhana, who at one time seemed likely to extend his dominion east, west and south. He was a patron of literature and more tolerant in his religious views, especially towards the Buddhists, than the Guptas had been.

The White Huns appear to have been accompanied by other tribes calling themselves Gurjaras, who gradually became absorbed into Hinduism. Some of them are believed to be represented by a few of the modern clans of Rajputs. A century of research has tested the tribal legends and records collected by Tod in his fascinating book on Rajasthan. We know now how the various dynasties in this area grew up, contested for supremacy and expanded north, east and south into other parts of India.

A similar pattern has been traced out for India south of the Vindhyas, where three important dynasties, each ruling for about two centuries, from the middle of the sixth to near the end of the twelfth centuries, have been described. Traditions of some of the more important rulers had survived, but most of the material is that of inscriptions.

In Bengal the Pala line of rulers, who were Buddhists, held sway from the eighth to the eleventh centuries and were followed by the Senas. Though many of their inscriptions have been found, their chronology is still not exactly determined, as they date in regnal years. But much has been done to settle it by references to them in the colophons of manuscripts and by the dates of contemporaries with whom they fought. A notable contribution was made by Hara Prasad Sastri (1853–1931) who discovered and edited *Ramacharita* (1910), an allegorical history of some of the Pala Kings. Hara Prasad was also successful in finding in Nepal early Bengali poems of the eighth and ninth centuries A.D., and a copy of *Saundarananda* by the great Buddhist poet Asvaghosha. Besides tracing the survival of Buddhist beliefs in Bengal, he edited many inscriptions and a number of works in *Bibliotheca Indica*. He was President of both the Asiatic Society of Bengal and the Bangiya Sahitya Parishad, a flourishing literary society.

When the history of these numerous lines of rulers merges in that of the Muslim invaders more certainty is arrived at. As the work of record progressed many writers contributed to piece the information together and to produce narratives. Soon after the middle of the nineteenth century official gazetteers were planned, and in these attempts were made to narrate the

history of each district and State in India. Notable names in this field are those of Sir R. G. Bhandarkar (1837–1925), whose *Peep into the Early History of India* described the story of Western India, Dr. Bhagvanlal Indraji for the history of Gujarat, and J. F. Fleet, who wrote on the Dynasties of the Kanarese Districts. Bhandarkar in particular was an all-round scholar who wrote on the ancient grammarians, on the religious history of Hinduism (1913) and many papers on archaeology. His eightieth birthday was marked by the foundation of the Bhandarkar Memorial Institute at Poona (1917), where the Bombay Government collection of Sanskrit MSS., in the search for which he took a prominent part, is housed. B. L. Rice (1837–1927) in a series of works on the very numerous inscriptions of Mysore and the far South did much to elucidate the history of that part of India, and R. Sewell (1845–1925) described the last great Hindu dynasty of Southern India in *A Forgotten Empire—Vijayanagar* (1900). V. A. Smith's *Early History of India* (1904) was, however, the first attempt to set out in readable form and with fair accuracy the results which had been obtained.

Sir W. W. Hunter (1840–1900) became director of a statistical survey of the Indian Empire in 1869, and in 1881 brought out an Imperial Gazetteer of India in 8 volumes, which had been expanded in the third edition of 1906 to 26 volumes. He had to a high degree the faculty of producing readable descriptions instead of the dreary annals which emerge from less skilful pens.

Muslim archaeology presented fewer difficulties but opened a very wide field. Sir Syed Ahmad Khan (1817–98), who belonged to a family settled at Delhi, is well known as the foremost social and educational reformer among Indian Muslims. He wrote in Hindostani descriptions of the Muslim buildings, palaces, forts and tombs at Delhi under the title of *Asar-us-Sanadid* (1847), which has formed the basis of many works in English published since and is still valuable. It was illustrated with drawings of prominent buildings and facsimiles of their inscriptions prepared by local artists, and was the first publication to contain facsimiles of Muslim inscriptions in India. In the journals of the societies other accounts are to be found, and the Archaeological Department has published a number of volumes on the splendid buildings which have survived at places like Jaunpur, Agra, Fatehpur Sikri, Ahmadabad and Bijapur, ranging from the fifteenth to the seventeenth centuries, besides shorter monographs. These give not only views of the buildings but also details of the architecture and illustrations of the beautiful decorative work in carving, inlay and occasionally in coloured fresco. In 1907 began the publication of *Epigraphia Indo-Moslemica*, which is gradually reproducing, with translations and historical notes, the numerous inscriptions surviving from the thirteenth century onwards.

Muslims began to enter India from the coast of Sind and by land through

Baluchistan early in the eighth century, and an account of the earliest Muslim occupation of Sind has survived in the *Chachnama*, a Persian translation of a lost Arabic original, which has been utilised by workers in the field of Indo-Moslem history.

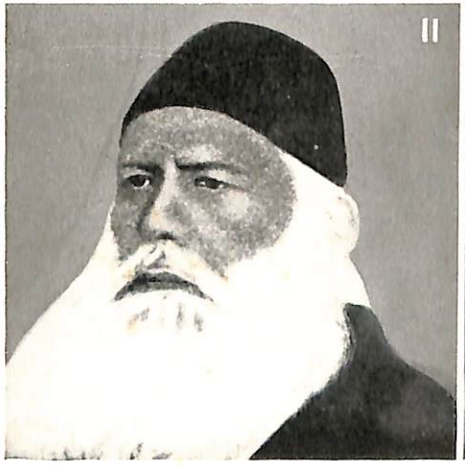
The knowledge of Persian acquired by the servants of the country soon led them to begin to make translations into English, as we have mentioned above. Sir Henry M. Elliot (1808–53), a gifted civilian, conceived the idea of printing in English translations or abstracts of all the principal authors who had written about India in Arabic or Persian. He had produced a bibliographical index of these before his early death, and his materials were later edited and published in 8 volumes (1867–77) by John Dowson (1820–81), who was a tutor at Haileybury and professor of Hindostani in University College, London, and at the Staff College. A supplementary volume containing the history of the Gujarat rulers was edited by Sir E. C. Bayley (1821–84). Elliot's work has been of the greatest value to students.

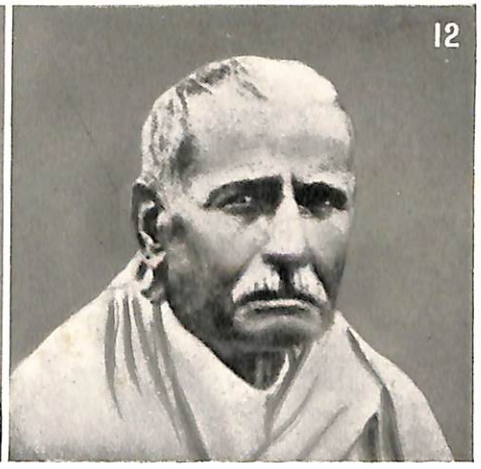
The earliest satisfactory *History of India* was published in 1841 by Mountstuart Elphinstone (1779–1859), who had a most distinguished career in widely different spheres, becoming Governor of Bombay in 1819, after the defeat of the Marathas. He twice refused the Governor-Generalship of India. A number of the histories translated by Elliot have later been edited and translated in full by various authors. The tangled story of the later Moguls in the eighteenth century was briefly related by H. G. Keene (1825–1915) in *The Fall of the Mogul Empire* (1876), and he also edited an *Oriental Biographical Dictionary*. A more complete account was compiled, after study of many unpublished sources, by W. Irvine (1840–1911). He also edited the Memoirs of Niccolo Manucci, a Venetian, who was in India 1656–1717, and whose account of the empire of Aurangzeb is most helpful. Vincent A. Smith, already mentioned, produced a study of Akbar, who established Mogul rule firmly in the northern half of India.

Akbar's son, Jahangir, like his great-grandfather Babur, left memoirs which have been translated and edited by A. Rogers (1825–1910), and Henry Beveridge (1837–1929). The latter, whose father had written a *History of British India*, and whose son is Sir William Beveridge, also made a literal translation of the very difficult *Akbarnama* or life of Akbar by his minister Abul Fazl.

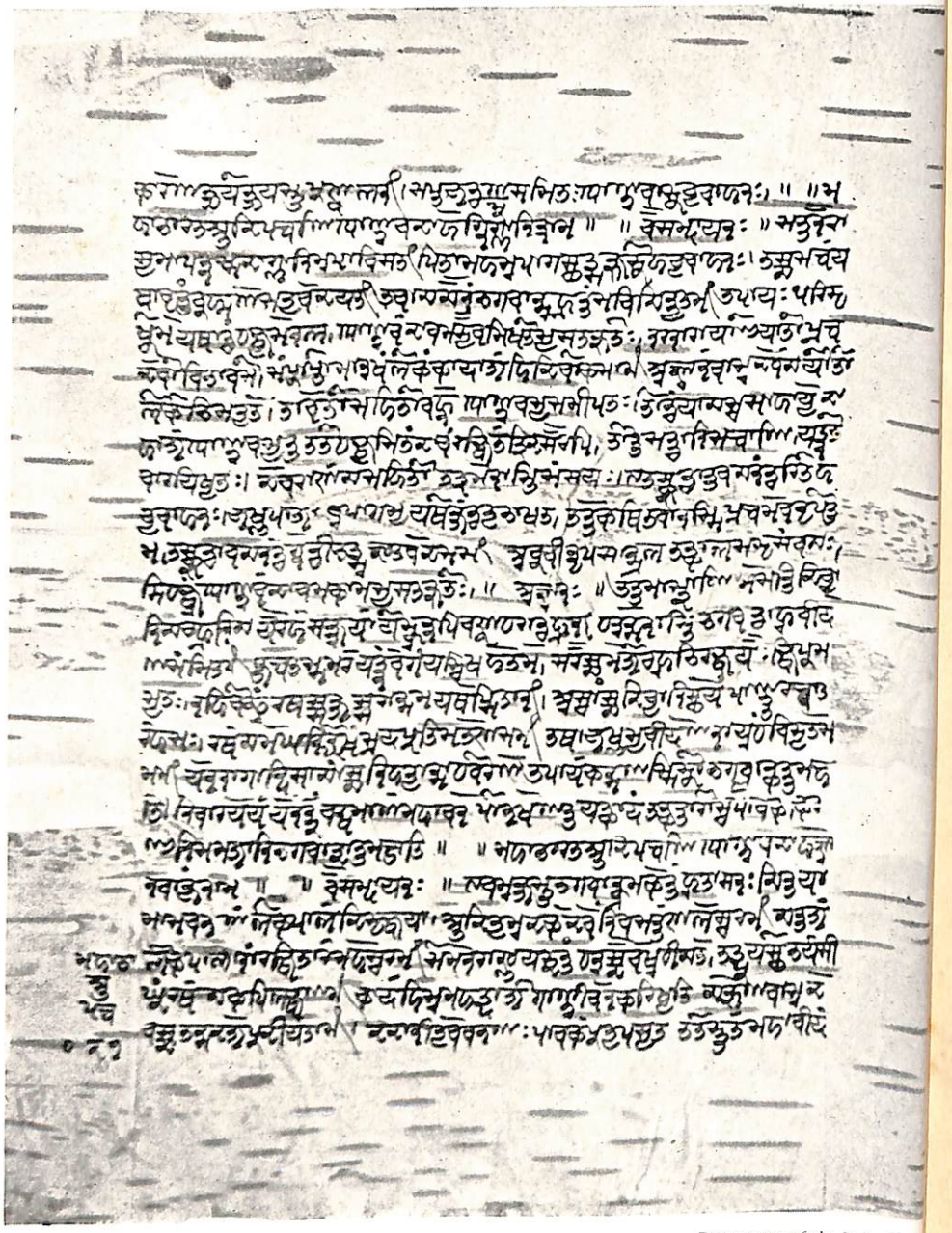
5. EDUCATIONAL INFLUENCES

Research in India was profoundly affected by educational policy. The Act of 1813 renewing the Company's charter allowed the Governor-General to direct an annual grant of not less than a lakh of rupees (£10,000) for :





7. Sir Henry Miers Elliot, 1808–53
8. Sir George Abraham Grierson, 1851–1941 (*Photograph by Frederick Robinson*)
9. Raja Rammohun Roy, 1772–1833
10. Sir Ramakrishna Gopal Bhandarkar, 1837–1925
11. Sir Syed Ahmed Khan, 1817–98
12. Haraprasad Sastri, 1855–1931



By courtesy of the India Offic

MS. on birchbark in Śāradā script. Mahabhārata

" The revival and improvement of literature and the encouragement of the learned natives of India and for the introduction or promotion of a knowledge of the sciences."

At that time indigenous schools were few in number and elementary in standard. Higher education was conducted in Persian, Arabic or Sanskrit in Bengal, and there were few vernacular text-books except the new productions of the missionaries.

The foremost worker at the time for the dissemination of Western languages and sciences among the Indian people was Raja Ram Mohun Roy (1772–1833). He was also a pioneer among those who made the knowledge of Eastern religion and philosophy accessible to Western readers. Ram Mohun belonged to a well-to-do Brahman family in the neighbourhood of Calcutta. Residence at Patna and Benares at an early age enabled him to acquire a sound knowledge of Arabic, Persian and Sanskrit. Later, he travelled in Tibet and studied the tenets and practice of Buddhism. Between 1802 and 1814, Ram Mohun served under different British officials of the East India Company and utilised the opportunity to acquire a remarkable knowledge of the languages, literatures, religions and institutions of Europe. He became deeply conscious of the necessity of educational, social and religious reforms in India, and from 1815 devoted himself energetically to these objects. What he accomplished in the social, political and religious spheres does not concern us here. But he was the earliest scholar to translate into English the *Upanishads*, the well-known philosophical supplements of the Vedas. Between 1816 and 1820 appeared his *Abridgement of the Vedanta* and the translations with commentaries of several of the Upanishads. These were published in the Sanskrit original with Bengali translations, and editions in English appeared in England between 1817 and 1832. Ram Mohun Roy wrote a number of original works in Bengali on social and religious topics and is deemed to have set the best standard in Bengali prose. He also founded periodicals in Bengali and Persian, and in 1826 he published a Bengali Grammar in the English language.

It was Ram Mohun Roy who persuaded Sir Hyde East, then Chief Justice of Bengal, to organise the movement for the establishment in 1816 of the Hindu College in Calcutta. When he found that his connection with that institution was likely to injure its popularity owing to the dislike of orthodox Hindus of his religious views, he voluntarily withdrew from any share in its management.

Ram Mohun Roy came to England in 1830 mainly with the object of giving evidence before the Parliamentary Committee which was considering the renewal of the Charter of the East India Company. He died at Bristol in 1833.

In 1823 he had addressed the Governor-General on the subject of education, pressing for the establishment of a college to teach Western science in preference to the perpetuation of merely traditional knowledge.

Education had not yet become a recognised function of government, and the efforts of the Indian Government were bounded by the appointment of committees to prepare text-books and foster the establishment of schools. Finally in 1823 a Committee of Public Instruction was nominated with H. H. Wilson as its secretary. Both the Calcutta Madrasa and the Benares College had languished but had begun to improve. The Committee opened a Sanskrit College at Calcutta in 1824 and a College at Delhi the next year for Arabic, Persian and Sanskrit. As time went on the members of the Committee became divided as to policy. It had become the practice to give stipends tenable for twelve or fifteen years to students of Sanskrit, Arabic, and Persian, and to spend large sums on the publication of works, chiefly translations into these languages of difficult and sometimes unsatisfactory English books on philosophy, economics and natural science. One party in the Committee maintained that higher education, with which alone the Committee was concerned, should continue to be in the classical languages, while the other asserted that English should be more widely taught, so as to introduce Indians to western literature of all classes and to science. Macaulay, by his celebrated minute of 2 February 1835, persuaded the Government to accept the second view.

It is easy now to criticise some of his arguments, e.g. when he doubted whether the Sanskrit literature, which he knew only by scanty and even faulty translations, was as valuable as that of the Saxons and Normans, and when he said that a single shelf of a good European library was worth the whole native literature of India and Arabia. Just as the methods of the Orientalists had damaged their cause by over-elaboration, so the swing in the other direction led to some neglect of Oriental classics. The new policy, however, met with public approval and certainly placed Indians in a position more quickly to benefit by Western learning. This was especially the case with the Hindus, as the bulk of educated Muslims were slower to take advantage of the colleges where instruction was given in English, because they preferred their traditional learning. For nearly half a century afterwards the best work done by Muslims was performed by men who knew little or no English.

One immediate result of Macaulay's minute was to change the nature of the help given by the Committee to Oriental publications. He pointed out that the Committee had spent more than £10,000 in printing Arabic and Sanskrit works which were not being sold. Government stopped all these publications, but the Asiatic Society of Bengal took over the task and were

able with outside assistance to complete nine of the eleven incomplete works, including the *Mahābhārata*, one of the two great epics of India, the *Rājatarangini* or chronicle of Kashmir, and the *Fatāwa-i-Alamgiri*, a collection of Muslim legal decisions of importance to lawyers. In 1838 the Directors sanctioned a payment of Rs. 6,000 a year for publication of texts approved by the Asiatic Society of Bengal. In 1847 the Society began a regular publication of such works under the title of *Bibliotheca Indica* which still continues and contains works of great value in all departments and translations of some of them into English. The series includes about 250 works in Sanskrit, Arabic, Persian and the vernaculars.

Another series of publications undertaken in England under the auspices of the Royal Asiatic Society was financed by the Oriental Translation Fund, which was discontinued after about fifty years and revived in 1891.

The use of lithography has been much greater in India than in Europe, where it has been chiefly employed for illustration. Introduced between 1820 and 1830, it was especially popular for books written in the Persian character, as the letters of that form when well written vary considerably in size, both in breadth and height. Many classics, besides newspapers and school books, have been published in that way, and recent improvements in technique have made it possible to produce larger editions than was formerly the case.

The use of vernacular prose was increased by the passing of an Act, in 1837, which authorised the Criminal and Civil Courts to replace Persian by vernaculars as the language of the Courts. It had already been the practice to record depositions in the language in which they had been made, but this change, carried out in 1839, and advocated in Bengal many years before by Halhed and Forster, was much more effective. It was pointed out to the officers in the present United Provinces that a clear and idiomatic style was needed, not merely the substitution of a vernacular for a Persian verb, and reference was made to the preference of the clerks for Persian and " their ignorance of the vernacular as a written language ". In Bengal a little later, stress was laid on " the adoption of a style equally removed from the colloquial and that employed by the Pandits " (which was too highly Sanskritised).

The foundations of vernacular prose composition having been thus laid, the earliest solid superstructure was devoted to literature and religion. H. H. Wilson, following Sir William Jones's example, translated the *Meghaduta* or " Cloud Messenger," a long lyrical poem by Kalidasa, who probably lived in the fifth century A.D. This was followed by a work on the Theatre of the Hindus. He was particularly interested in drama, was a capable performer himself, and married a grand-daughter of the English

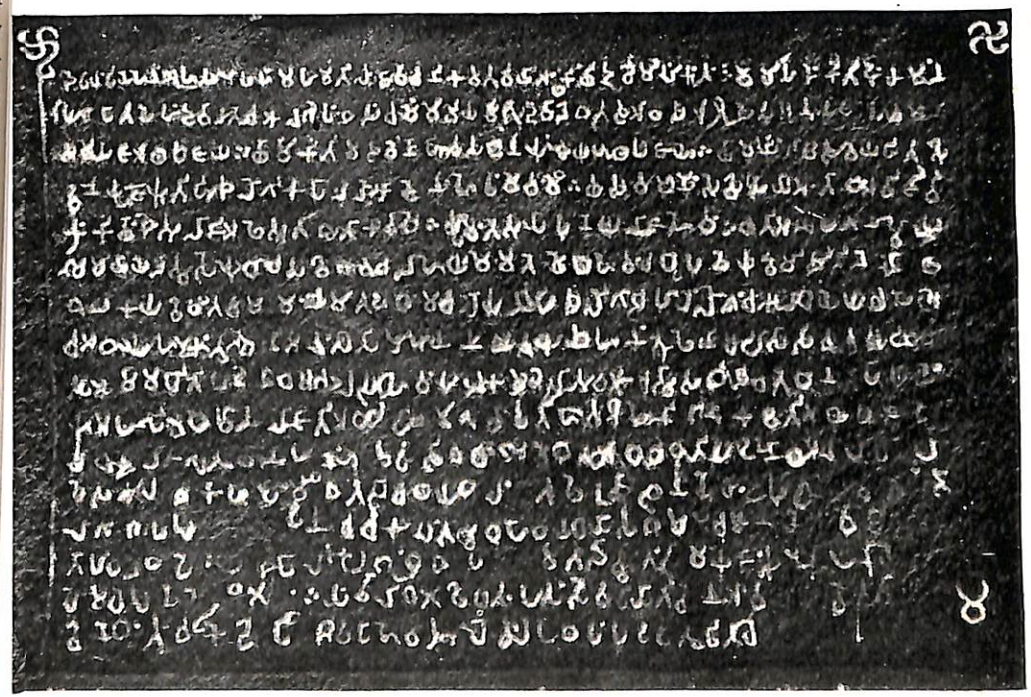
actress, Mrs. Siddons. Wilson on his retirement became, in 1833, the first holder of the Boden Professorship of Sanskrit at Oxford, a foundation left more than twenty years earlier by Colonel Boden. Wilson was also librarian to the East India Company in succession to Wilkins, President of the R.A.S. and a Visitor of Haileybury. These posts enabled him to make India more generally understood in England and to inspire the students at Haileybury with feelings of appreciation of Indian civilisation. His other works include a translation of the *Vishnu Purana*, *Lectures on the Religious and Philosophical System of the Hindus* and a translation of the *Rigveda*. This last is a work held in the greatest sanctity by all sects of Hindus. It may be briefly described as a collection of hymns in praise of various deities, while according to some interpretations, these deities were manifestations of one God. The hymns were probably composed about 1400 to 1200 B.C., though some authorities suggest an earlier date. The full text and a revised translation were published later by Max Müller (1823–1900), who came to England in 1846, settled at Oxford and became the first Professor of Comparative Philology there. The later works of Max Müller include *A History of Ancient Sanskrit Literature*, *The Science of Language*, and many publications on comparative mythology. From 1875 he was editor of the series of *Sacred Books of the East*, which included 51 volumes of translations by scholars of many countries. He became a naturalised Englishman and for his services to literature and science was made a Privy Councillor. In addition to accurate scholarship he possessed the faculty of presenting his results in a manner which attracted readers and thus spread them in circles which the specialists rarely reached.

John Muir (1810–82) was another early student of the Vedas. After education at Haileybury he went to India in the Civil Service in 1829 and for some years was Principal of the Queen's College at Benares which was an adjunct of the Sanskrit College. Chief among his many publications on the history and religion of India is the work *Original Sanskrit Texts on the Origin and History of the People of India*, in 5 volumes, which passed through more than one edition. After his retirement in 1862, he founded a Professorship of Sanskrit and Comparative Philosophy at Edinburgh University.

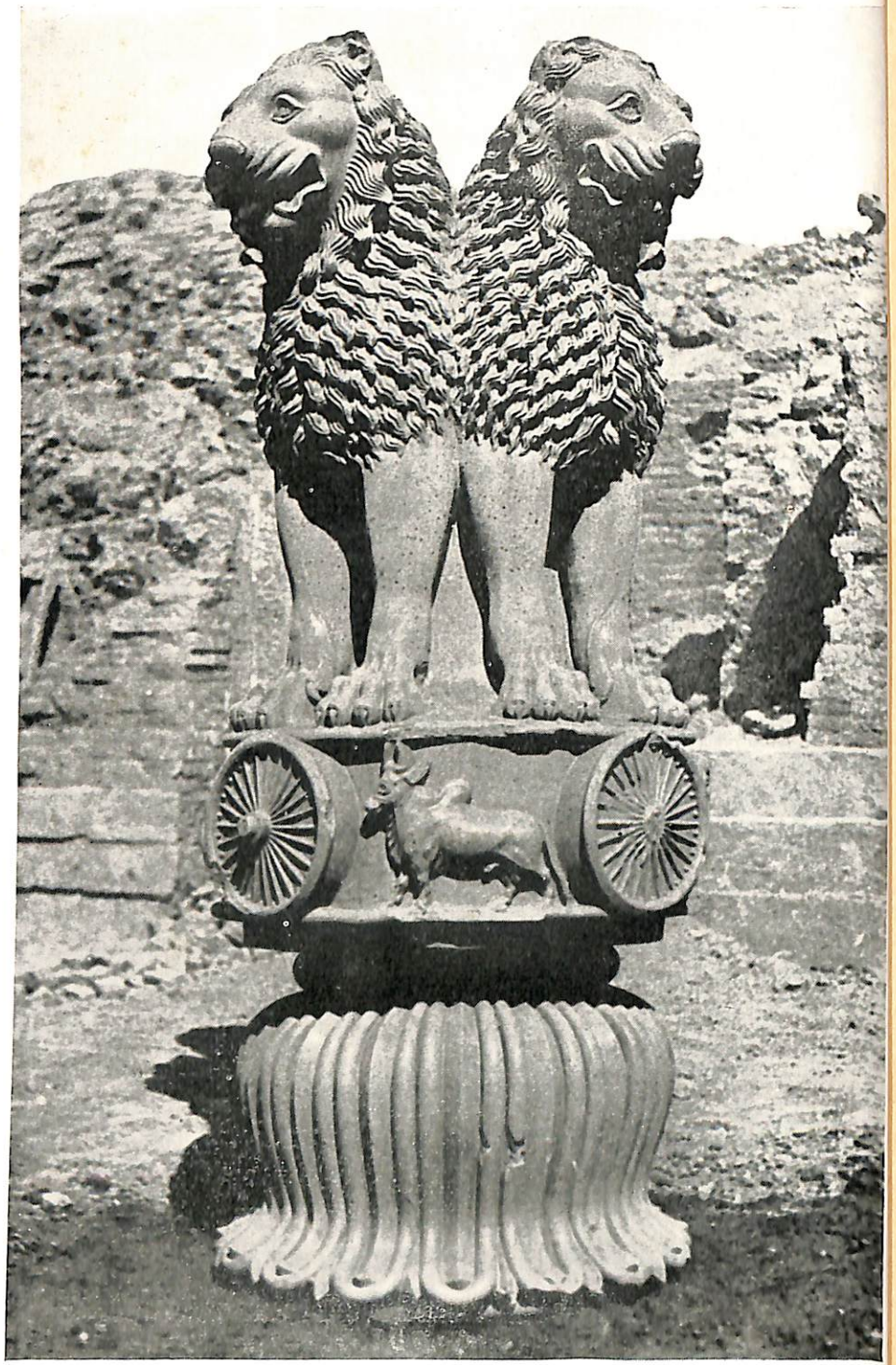
Wilson was succeeded in 1860 as Boden Professor at Oxford by Sir Monier Monier-Williams, who held that post for nearly forty years. His works include a Sanskrit grammar and English-Sanskrit and Sanskrit-English dictionaries. In literature he devoted special attention to the later Sanskrit works, and in a number of books expounded the modern phases of Hindu religious thought. He also founded the Indian Institute at Oxford in 1883, as a centre for the study of Indian culture. Its library is now a

By courtesy of the British Museum

Lion-capital, Mathurā, with inscription in Kharoshthi script



The Provincials' Edict of Asoka, from Jaugada in Brāhmī script



Lion-capital, Sarnath, of Asoka

branch of the Bodleian Library, and it is the centre for the teaching of Oriental languages in that University.

The traditions of the Boden Professorship have been worthily maintained by Macdonell (1854–1920), who worked chiefly in Vedic studies ; F. W. Thomas, who is happily still alive ; and E. H. Johnston, whose untimely death occurred while this booklet was being compiled.

Sir William Jones, when founding the Asiatic Society of Bengal, had made it a rule " that no qualification shall be necessary for membership beyond a love of knowledge and zeal for the promotion of it ". Indians began to join it about 1832, when Dwarka Nath Tagore became a member. He was a wealthy landowner and merchant, and an intimate friend and coadjutor of Ram Mohun Roy. Like the latter, Tagore was greatly interested in social and philanthropic movements, and it is interesting to observe that he was the grandfather of Rabindra Nath, the poet, and great-grandfather of Abanindra Nath, the artist. Another early member was Ram Kamal Sen, a friend of H. H. Wilson and James Prinsep. He published an English-Bengali dictionary and became Native Secretary. He was the grandfather of the great religious reformer, Keshab Chandra Sen.

The earliest Indian member of the Society to distinguish himself eminently in research was Rajendra Lal Mitra (1824–91), who after studying medicine and law applied himself to Sanskrit, Greek, Latin, French and German, and at an early age became assistant secretary and librarian. He contributed more than a hundred papers to the journal and was editor or part-editor of nearly a score of important works in the *Bibliotheca Indica* series. His studies included the later Vedic literature, the Purānas, grammar, the drama and Buddhist literature. He became President of the Society in 1885 and received the title of Raja for his eminent services.

Hindu philosophical thought had attracted less attention in Europe than the fields of comparative philology and literature. E. B. Cowell (1826–1903), who had been attracted to Oriental studies by reading Sir W. Jones's works when he was a boy, began life in business, but met H. H. Wilson and took up Sanskrit as well as Persian. After taking a degree at Oxford he went to Calcutta to teach history, and for six years was head of the Sanskrit College. Becoming the first Professor of Sanskrit at Cambridge in 1867 he specialised at first in philosophy, and also taught comparative philology and Persian. He wrote on all these subjects, edited and translated important texts, and above all was an inspiring and successful teacher.

Though Buddhism, which was originally a sect of Hinduism, had died out in India about A.D. 1200, nearly seventeen centuries after the birth of its founder, the creed was still a living force in Nepal, Tibet, Burma and Ceylon, besides the more distant countries of Siam, China and Japan. Sir William

Jones had found references to it, but the founder of its modern study was B. H. Hodgson (1800–94), who went to India in 1818 from Haileybury, and shortly afterwards became assistant resident in Nepal, where he remained almost continuously till 1843. He then resigned the service, but two years later returned to India and lived at Darjeeling till 1858, continuing his studies there and later in England. By his tact and perseverance, Hodgson was able to procure copies of rare and valuable Buddhist texts preserved in the temples and the royal library of Nepal. These he presented to the Asiatic Society of Bengal, while other copies were sent to London, Oxford and Paris. With the help of the Pandits he translated some of them and by 1828 was able to write in the Journal *A Sketch of Buddhism*, which attracted wide attention in Europe, and a demand for the original authorities. Hodgson had obtained in Nepal 60 volumes in Sanskrit, the very names of which were unknown in India, and he also procured 250 books in Tibetan, the key to which language had been obtained by the Hungarian Csoma de Körös. Hodgson's own publications include 184 philological and ethnological and 127 scientific papers.

Hodgson's researches into Buddhism were largely based on Sanskrit works, but a more considerable volume of scriptures exists in the Pali language, which was the spoken tongue as distinct from literary Sanskrit at the time of the Buddha. G. Turnour (1799–1843), who entered the Ceylon Civil Service in 1818, was the first to publish the great chronicle of rulers of Ceylon called the *Mahawanso* with a translation (1837), besides papers on Buddhism.

The Pali Text Society began to publish original works and translations in 1882, the principal British contributors being T. W. Rhys Davids (1843–1922) and his wife. Rhys Davids had served in Ceylon from 1866 to 1876 and later was honorary professor of Pali and Buddhist religion in London for thirty years. He founded the Society, produced a volume on Buddhism in 1876, followed by other works on the canon. Mrs. Rhys Davids (1858–1942) was the honorary secretary of the Society and succeeded her husband as president, and from 1917 to 1933 lectured on Buddhism at the School of Oriental Studies in London. She collaborated with her husband in several works and especially sought to recover the earliest principles of Buddha's teaching.

Research in Pali was much facilitated by the first dictionary of that language published in 1872–5 by R. C. Childers (1838–76), who had also served in Ceylon and edited Pali texts. A revised Pali dictionary was issued by the Text Society in 1921–5, edited by Rhys Davids and W. Stede.

Another notable contributor to Pali literature was Lord Chalmers (1858–1939), who had been attracted to Pali studies, while he was still a young clerk

in the Treasury, by Rhys Davids, from whom he took over the work of translating the Jatakas or stories of previous births of the Buddha. These narratives are of great importance for the early social, economic and religious history of India. E. B. Cowell, who had initiated the translation, and had started Pali classes about sixty-five years ago, has already been mentioned.

6. LINGUISTIC SURVEY

Among the original members of the Asiatic Society of Bengal was William Chambers, who was described as knowing the languages of the coast, i.e. Telugu, but the first notable English scholar in the field of the Dravidian group was Francis Whyte Ellis who joined the Company's service in Madras in 1796 and died in India in 1819. He was profoundly versed in the Tamil language and literature. Following him came C. P. Brown (1798–1884), who went to Madras in the Civil Service in 1817 and became Persian and Telugu translator to Government. He compiled a grammar (1840) and dictionaries Telugu-English and English-Telugu (1845–53). Similar work in Tamil was done by G. U. Pope (1820–1908), a missionary who published a Tamil grammar in Tamil (1842) and in 1895 re-issued it with an English translation. He also edited a number of Tamil classical works and began to catalogue Tamil books in the British Museum.

A fresh approach to the study of the languages of Southern India was made by Bishop R. Caldwell (1814–91) whose *Comparative Grammar of South Indian Languages* deals with Kanarese and Malayalam as well as Tamil and Telugu. But it must not be forgotten that a great deal of pioneer work had been done by the Portuguese and other missionaries, both Catholic and Protestant, in the sixteenth, seventeenth and eighteenth centuries.

Carey had projected a comparison of the northern languages and had prepared a treatise on the subject which unfortunately was destroyed by a fire at the Serampore press in 1812 and was never re-written. Both before and after that date notices of many of the modern vernaculars of Northern and Western India appeared in the *Journal of the Asiatic Society of Bengal*. These have grown out of ancient Prakrit dialects, earlier than Pali, as was first pointed out by James Prinsep. Besides notes on the modern languages, we find descriptions of works composed in the twelfth and later centuries, such as the long epic poem by Chand Bardai, who described the exploits of Prithiviraj, the last Hindu ruler of Delhi, and the destruction of his empire by Muhammad bin Sam. This is one of the few quasi-historical Hindu records which have survived, though it has perhaps more linguistic

than historic value. It was used by Tod in his *Annals of Rajasthan* and has since been edited.

The term Hindi had been loosely used to include a number of kindred dialects, spoken in the area from Rajputana to Bengal, as well as the particular dialect which formed the basis of Hindostani or Urdu. The name Hindi is applied in a more specific sense to the literary language developed out of Hindostani by the substitution of words of Sanskrit origin for the Persian and Arabic words characteristic of Urdu. The need for distinction was first pointed out in 1872 by A. F. R. Hoernle (1841–1918), an eminent scholar who became Principal of the Calcutta Madrasa, Philological Secretary, and later President, of the Asiatic Society of Bengal, and was distinguished in many branches of Oriental studies. His essays (1873–7) were incorporated in his *Comparative Grammar of the North Indian Vernaculars* (1878), which appeared about the same time as the *Comparative Grammar of the Aryan Languages* (1872–9) of John Beames, (1837–1902). These two works complete and supplement each other.

The greatest results in this field are, however, due to Sir G. A. Grierson (1851–1941) who went to India in 1873, began writing on languages four years later, and for nearly sixty years continued to produce work of the highest class. Much of his Indian service was rendered in Bihar, and his genius and skill in linguistic comparisons was displayed in his *Seven Grammars of the Bihari Dialects* (1883–7). A book on *Bihar Peasant Life* (1885) catalogues about 12,000 words descriptive of every aspect of the life of the people, agriculturists, traders or artisans. In 1889 appeared a book on *The Modern Vernacular Literature of Hindustan*, with a catalogue of 952 authors ranging from about A.D. 1150, and writing in the dialects current from Rajputana to the borders of Bengal. In 1898 Grierson was deputed by the Indian Government to carry out a comprehensive linguistic survey of India, a task that has been described as " the biggest thing of the kind that had ever been attempted in any part of the world ". Through the officials of the British districts and the Indian States a list of all the languages and dialects spoken in each unit area was first obtained. Through the same agency reliable and well-tested specimens of each language and dialect were then obtained. Every specimen was scrutinised by Grierson himself, and when a doubt occurred further enquiry was made.

This preliminary examination enabled Sir George to write for the report on the Census of 1901, a far more comprehensive chapter than had appeared in any earlier report, and to secure a systematic classification where previously much had been vague and unsatisfactory.

Thirty years after his first deputation, appeared the final volume of this great work in 20 quarto volumes containing nearly 8,000 pages.

Except a few of the earlier volumes, compiled by a Norwegian scholar, Dr. Sten Konow, the entire work was done by Grierson himself. Four separate families of languages are recognised, the Austro-Asiatic, the Sino-Tibetan, the Dravidian and the Aryan, including 179 languages, speakers of which would not be intelligible to each other, and 544 dialects.

Grierson's work throughout was marked by its thoroughness and accuracy, his modesty of assertion and his constant readiness to share his researches with other enquirers, even before he was ready to publish results. It has brought to light many interesting facts not previously suspected, and apart from its immense practical value has stimulated further enquiries. The grant of the Order of Merit, never previously awarded for Indian studies, was a fitting crown to the mass of honours conferred on him by universities and learned societies in many countries.

7. ANTHROPOLOGY

Servants of the East India Company were quick to notice the usages of Indians which differed from their own, and many notes on such matters are found in the early narratives. The customs of the people assumed practical importance for administrators when in their judicial capacity they were faced with such matters as the rules of inheritance or when their official duties concerned problems of land revenue and administration. Sir William Jones's annual addresses to the Asiatic Society of Bengal dealt in a general manner with some of the races of the East, and the *Asiatick Researches* and *Journal* of the Society began to contain articles on the subject, dealing especially with the more backward tribes in frontier districts or in the jungles of Central and Southern India. In recording such matters Brian Hodgson took a prominent part. Beginning with the castes and tribes of Nepal where his work lay, he produced a large number of essays in the *Journal* and followed these up with studies of the aboriginal tribes in other parts of India. Hodgson attached great importance to language as a key to affinity and drew up a specimen list of words by which languages could be compared, for the guidance of other enquirers.

In 1866 the material available was surveyed in the *Journal of the Asiatic Society of Bengal* by Sir George Campbell (1824–92), a distinguished civilian who had served in various parts of Northern India before becoming Lieutenant-Governor of Bengal. Campbell expressed his regret that he had little information about Bengal, but this was supplied later by Colonel E. T. Dalton (1815–80), whose early service was in expeditions against frontier tribes in Assam and who later became Commissioner of Chota Nagpur,

the home of many interesting and virile races. In 1872 Dalton published *The Descriptive Ethnology of Bengal*. The work of Campbell and Dalton excited interest and led to further advances. The volumes of the District Gazetteers, written by many men with local knowledge, contain much ethnological information on the subject; and land revenue reports, especially in Northern India, are full of descriptions of the agricultural castes. A glossary of the latter by Sir Henry Elliot had in fact been printed so far back as 1844, and it was reprinted in 1869 with additions by John Beames (1837–1902), with the title of *Memoirs of the Races of the North-Western Provinces*. A more detailed description of Hindu Castes was given by the Rev. M. A. Sherring (1826–80), who produced under that title three large volumes (1872, 1879 and 1881) which describe castes in all parts of India, and formed the first comprehensive book on the subject.

The first general census of India was taken in 1872, but enumerations had been made in several provinces at earlier dates, and much information was gathered in this connection about castes. Perhaps the most valuable of the early discussions in census reports is the chapter on Caste in the report on the Punjab census of 1881 by Sir D. J. F. Ibbetson (1847–1908) which was afterwards expanded and republished as *Outlines of Punjab Ethnography* (1883). A more scientific spirit was infused into the enquiry by Sir H. H. Risley (1851–1911), who had assisted Sir W. Hunter in work on the gazetteers of Bengal. Risley had been attracted towards anthropology by early service in Chota Nagpur and association with Dr. James Wise, who for ten years had been collecting information about the people of Eastern Bengal, supplementing a book he had printed privately in 1883. In 1891 Risley produced two volumes, *The Tribes and Castes of Bengal*, supplemented by two further volumes of anthropometric data. In selecting material for the latter he had the valuable advice of scientists in Europe, and this was the first comprehensive attempt at analysing, by this method, the racial components of a considerable area in India. The doyen of Indian ethnologists, Sarat Chandra Roy (1871–1942), has produced further descriptions of the tribes of Chota Nagpur. Risley's paper on " The Study of Anthropology " in India in the *Journal of the Anthropological Institute*, 1891, attracted much attention. A fellow-worker in the same field was W. Crooke (1848–1923), a civilian in the neighbouring province, who compiled a similar work on the *Tribes and Castes of the N.W.P. and Oudh* (now called United Provinces) (1896), and was the author of many papers.

Financial stringency stopped official support for some years, but when Risley was appointed, in 1900, Census Commissioner for India, Lord Curzon also created the appointment of Honorary Director of an Ethnographic survey, and the Census Superintendents in each province were instructed

to pay special attention to the subject. The Census report of 1901 for the whole of India, begun by Risley and completed by Sir E. A. Gait, a distinguished student who is still alive, contained unusually full material and was followed by provincial treatises on castes and tribes in most of the other provinces and some of the states. Later Risley republished separately, with revisions and additions, the anthropological portions of the report under the title of *The People of India* (2nd edition, revised by W. Crooke, 1915).

Folklore is an important branch of anthropology, and Indian folklore is the source of many of the most ancient tales still surviving. Some of these have indeed penetrated into Europe through Persia by translation from one tongue to another, as has been shown by N. M. Penzer in his edition of C. H. Tawney's translation of the Sanskrit work, the *Ocean of Stories*. Collections of ancient Indian stories in later recensions have been published by a number of authors. In 1883, Sir Richard (then Captain) Temple (1850–1931) founded a periodical devoted to folklore entitled *Punjab Notes and Queries*, which continued for four years and was revived later by W. Crooke as *North Indian Notes and Queries*. Temple became one of the editors of the *Indian Antiquary* in 1885, and that journal also is a valuable source for students of the subject. Two noteworthy works by him are the *Legends of the Punjab* (3 vols. 1884–1901), and a work on the *Nats* or spirits of Burma.

These researches into ethnology and anthropology have been widely used by students of comparative institutions, such as Sir Henry Maine (1822–88), whose works on *Ancient Law* (1861) and, after his service as Law Member of the Government of India (1862–9), on *Village Communities* (1871), *Early History of Institutions* (1875), and *Early Law and Customs* (1883) drew largely on Indian material and mark a new stage in the study of comparative law and custom.

The rigidity of caste restrictions on marriage and social custom has caused a series of enquirers to speculate on the origin of the system. Among these may be mentioned John Muir, whose Sanskrit Texts have been referred to above, Dr. John Wilson (1804–75), who was also an authority in Bombay on palaeography and the Parsee religion, Sir Denzil Ibbetson, whose census work has been mentioned, J. C. Nesfield, who wrote a *Brief View of the Caste System of the N.W. Provinces and Oudh*, based on the census report of 1881, and Sir H. H. Risley. An acute writer on kindred subjects was Sir A. C. Lyall (1835–1911). Before becoming Lieutenant-Governor of the N.W. Provinces and Oudh, he had served in Berar and Rajputana, where he compiled gazetteers. His *Asiatic Studies* (1882 and 1899), written in a very graceful style, cover a number of topics. One essay, showing

that though Hinduism is not a proselytising religious system it still continues to absorb tribes resident in India whose belief had been animistic, is of particular importance. This aspect of modern Hinduism had been overlooked in Europe, where it was generally thought that Hinduism was a closed fold.

8. OTHER SCIENCES

Indian astrology attracted the notice of some of the early servants of the Company, such as John Marshall, but serious study of Indian researches in astronomy and mathematics began later. Samuel Davis (1760–1819), who went to India as an Engineer officer and later became a civil servant, wrote an excellent paper in *Asiatick Researches* on " The Astronomical Computations of the Hindus " (1789). Similar work was done by Reuben Burrow (1747–92), who went to India to teach mathematics to the Engineers and was employed in the survey of Bengal, and by John Bentley, whose work on the *Antiquity of the Suryasiddhanta* (1799) was followed by a *Historical View of Hindu Astronomy* (1823). In this field, however, as in others, H. T. Colebrooke stands out for intimate knowledge, not only of mathematics, but also of Sanskrit, which enabled him " to form a clear idea of the progress which the Indians had made in this branch of knowledge, especially as regards indeterminate analysis ". At Ujjain, at Delhi, and at Benares, still exist massive astronomical instruments for taking observations, which were erected, with others at Muttra and Jaipur, by Raja Jai Singh of Jaipur early in the eighteenth century. They were described by Dr. William Hunter (1755–1812), who personally examined four of them, and more fully by G. R. Kaye (1866–1929) in a series of works.

When the principles of Hindu astronomy had been grasped, the question of the various eras in use in India was taken up, and Colonel Warren, of the 33rd Foot, employed in the Survey of India, produced a valuable study called *Kala Sankalita* (1825), which explains the systems recognised and gives tables equating dates in them with those of the Christian era. These were further improved by T. B. Jervis of the Bombay Engineers in *The Metrical System of India* (1832), which also deals with measures of length and weight. James Prinsep did valuable work in the same sphere in his *Useful Tables* (1835), and Alexander Cunningham's *Book of India Eras* (1885), led to further simplification. More recently, R. Sewell and S. B. Dikshit produced further tables on the same subject, in their work *Indian Chronology* (1894) and L. D. Swamikannu in *Indian Ephemeris* (7 vols. 1922–3), a most valuable compilation.

Colebrooke's early description of Hindu writings on mathematics was developed and extended by G. R. Kaye, who is mentioned above, in *Indian Mathematics* (1915), and *The Bakshali Manuscript* (1927), which had also been examined by A. F. R. Hoernle.

Economic enquiries into Indian conditions seriously began when the British took over the administration of Bengal. Here again H. T. Colebrooke made a notable contribution with *Remarks on the Husbandry of Bengal* (1795), in which he criticised the commercial monopoly of the Company. Many essays on agriculture, botany, manufactures and trade appeared in the *Journal of the Asiatic Society of Bengal*. For the settlement of land revenue it was necessary to ascertain the Indian regulations, and the translations of the *Ain-i-Akbari* or Institutes of Akbar were of assistance here.

More recently a great stimulus was given to the study of Indian economics by W. H. Moreland (1869–1938), whose official work as Director of Land Records and Agriculture in the United Provinces had been outstanding. Using freely the Persian, Dutch and Portuguese records, he produced, in *India at the Death of Akbar* (1920) and *India from Akbar to Aurangzeb* (1923), economic studies which are models of research. While in India he had written *An Introduction to Economics for Indian Students* (1913) which, though of an elementary character, had a very important effect on University teaching in India. Previously, the subject had generally been taught with illustrations drawn from European or American conditions, many of which were hardly applicable to India. His book on *The Agrarian System of Moslem India* (1929), which covered the period from the thirteenth century, was a great advance on previous knowledge, owing to his close knowledge of Indian conditions, as well as to his success in elucidating technical terms.

Medical science in India had a long history going back to the post-Vedic period, and some of the Indian treatises had been translated into Persian and Arabic as early as A.D. 800, and hence through Latin versions became known in Europe. A manuscript on birch bark, brought by Captain Bower from Central Asia, which may be dated in the fourth century A.D., was edited and translated (1893–1912) by A. F. R. Hoernle, who then made a profound study of Indian medicine and osteology, on which he published several works.

Numismatics serve as a handmaid to History and also Economics. Some account has already been given of the services of this study to History, of which full use was made by Prinsep, Thomas, Cunningham, Vincent Smith and many others. Thomas's work on *The Chronicles of the Pathan Kings of Delhi* (1847) also showed how valuable the subject was for the light

it threw on relative values of the metals used and for ascertaining weights and measures. His conclusions have been checked and modified by the late H. Nelson Wright in *The Coinage and Metrology of the Sultans of Delhi* (1936). Wright also was the founder of the Numismatic Society of India (1910), which has done much to foster interest in the subject and publishes a journal.

9. CULTURAL INSTITUTIONS AND ART

The beginning of the nineteenth century witnessed the foundation of three institutions which in their subsequent development have contributed very largely to the systematic and scientific study of Indian culture. As an adjunct of Fort William College in Calcutta a library was established with the twofold object of being a storehouse for printed books and a collecting centre for the many valuable manuscripts in the classical and modern languages of India that were coming into the possession of the Indian Government. Almost simultaneously, the Court of Directors of the East India Company founded at East India House in the City of London an "Oriental Repository", both as a library of books and manuscripts relating to India and as a museum to house objects of interest and study from the archaeological, artistic and scientific points of view. Very wisely, they appointed Charles Wilkins (whose work in India under Warren Hastings we have already described) as the first head of the new institution. This library was rapidly enriched by books and manuscripts sent from India and more particularly by valuable gifts and bequests from men who had served in India and had made large collections of their own. In addition the Company made several prudent purchases for their collection, among which may be mentioned the Mackenzie Manuscripts (described above), and the Johnson Albums, a priceless collection of beautiful and authentic Indian pictures. The library prospered under the careful management of Wilkins and, after his death in 1836, of Horace Hayman Wilson, whose work has also been referred to in previous sections. When India came under the Crown and the present India Office building was erected in Whitehall in the 'sixties of the nineteenth century, the library and the museum were installed in the new building. It was soon found that sufficient room was not available for both purposes. An attractive scheme for the foundation of an Indian Museum of Fine and Industrial Arts on a site facing the India Office, across King Charles Street, which has since been utilised for Home Government Offices, had to be abandoned for financial reasons. In the late 'seventies, the collections in the museum part of the

"Repository" were dispersed; the exhibits of industrial art went to the India section of the museum at South Kensington now called the Victoria and Albert Museum; the archaeological and sculptural and natural history exhibits were given to the British Museum, while the botanical specimens went to Kew. The South Kensington Museum has since then largely added to its collection of Indian artistic examples by judicious purchase, and the galleries have been remodelled and rearranged. The British Museum possesses, in addition to what it received from the India Office, a great collection of Indian books, manuscripts, coins and works of art. We may express the hope that an early opportunity will occur of bringing together in the centre of the Empire in suitable premises all the elements exhibiting Indian culture for which a student has to go to many different institutions at the present moment. Fortunately the library portion of the "Oriental Repository" was not scattered. With very valuable and continuous accessions and under the guidance of keen and talented librarians, it has afforded unique opportunities for study and research to all interested in Indian affairs and Indian culture.

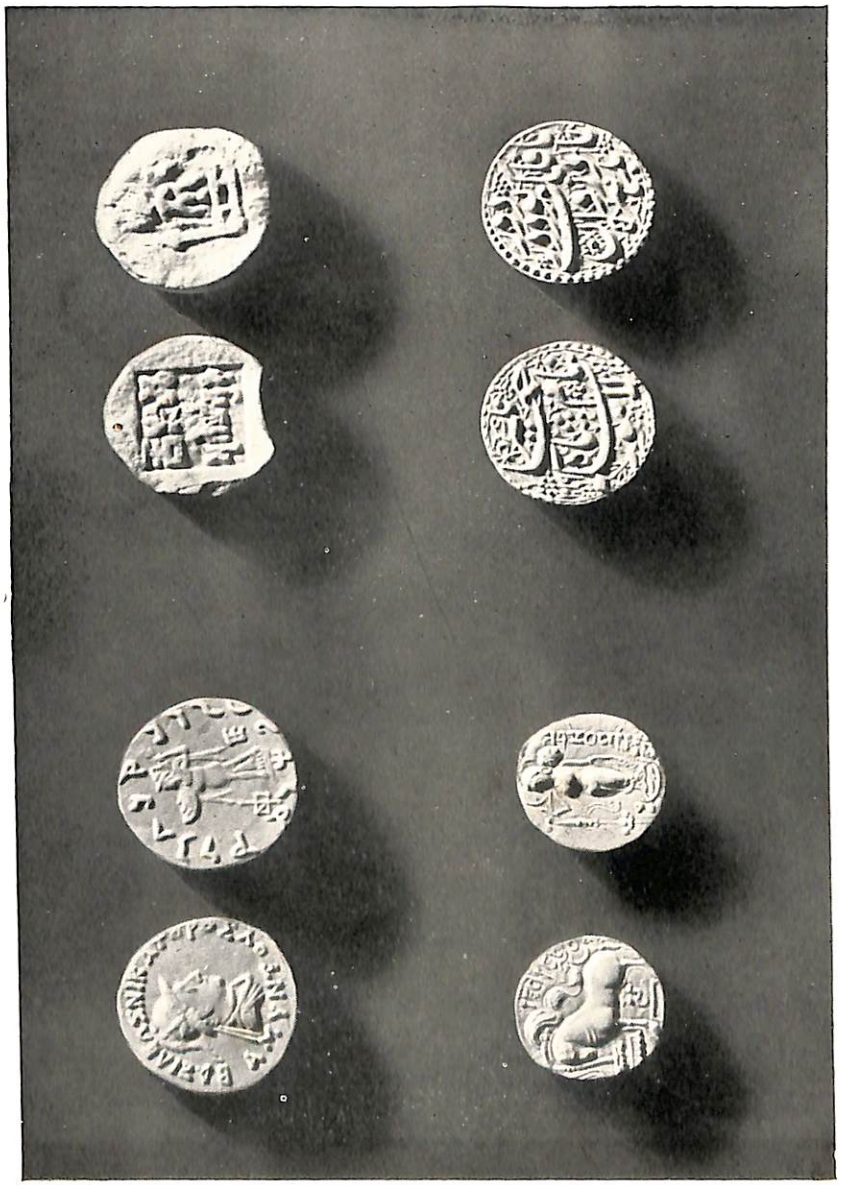
In India, the Asiatic Society of Bengal started in the early years of the nineteenth century a collection of books and manuscripts which has developed into a very valuable adjunct of its cultural work. When Fort William College was closed down in the 'thirties of the nineteenth century, a large proportion of the European books were made over to the Society's library. The whole of its Sanskrit, Persian, Arabic and Urdu works, mostly in MSS., were also given to the Society. Besides these, a vast number of Oriental manuscripts of great age and value, belonging to the Indian Government, are kept in the custody of the Society.

About 1815 the Society began the organisation of a museum covering a number of cultural and scientific subjects. This museum had many vicissitudes and received some financial aid from the Government. In 1856, the Economic Geology section of the museum was transferred to the recently established Geological Survey of India. The Society then pressed for the establishment of a National Museum in Calcutta under governmental auspices. After the appointment of Sir Alexander Cunningham as Director General of Archaeology (*see* p. 25, above), the Indian Government resolved to give effect to this recommendation, and the archaeological section of the India Museum in Calcutta housed the antiquities that belonged previously to the Asiatic Society of Bengal. The section was soon enriched by valuable collections from the Archaeological Survey. "To-day this unrivalled collection of Indian antiquities, illustrating the various phases of Indian culture, is presented in the most logical and attractive form to scholar and layman."

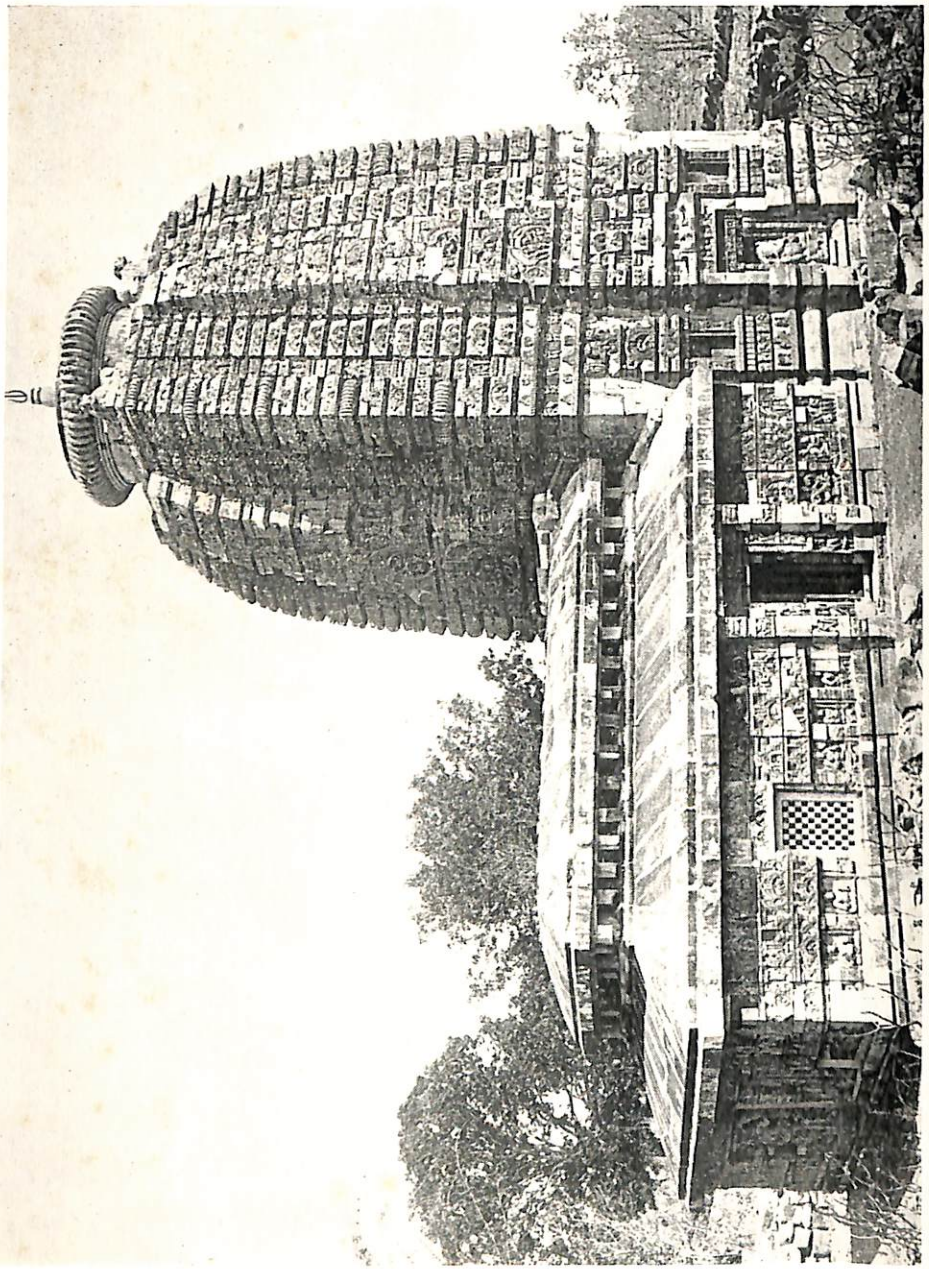
In later years, museums were established in the principal cities of India, such as Bombay, Madras, Lahore and Lucknow. During the viceroyalty of Lord Curzon, the museum movement in India received a most encouraging impetus, and now there are interesting and valuable museums in all centres in British India and in the states where it has been possible to collect suitable material. There is also a notable museum in New Delhi, housing the magnificent collections recovered by Sir Aurel Stein in his Central Asian expeditions in the early part of this century.

In respect of libraries also, India is much better equipped for the cultural student than it was fifty years ago. There are good and growing libraries in all the provincial capitals, while several Universities, notably Calcutta, have established their own libraries for books and manuscripts. The records of the Indian Government are available for study at Calcutta and Delhi, and some of the newer cultural institutions which will be described later are developing specialist libraries. Mention should also be made of a very valuable library, at Patna, of Oriental books and manuscripts established by the munificence of a cultured donor, Mr. Khuda Bakhsh.

All these libraries and the museums have provided students with books, manuscripts and plastic material for the study of Indian sculpture and architecture. For the study of the art of painting as practised in India in ancient and mediaeval times, the facilities are now much ampler. Apart from mural pictures, which will be referred to below, there are few or no survivals of any Indian pictures of a large size, such as one sees in Europe. Manuscripts of literary or ethical value were enriched by relevant illustrations, and there were portraits also in book size or in miniatures. The art, which was extensively practised in the Mughal and Hindu Courts, became decadent in the eighteenth century and practically died out in the nineteenth century, except perhaps in the remoter tracts of the Himalayan and sub-Himalayan region. William Moorcroft (1765–1825), a veterinary surgeon, who had been employed in the Indian Army, travelled in these parts in the early decades of the nineteenth century. The account of his journeys published by H. H. Wilson in 1841 described how the so-called "Kangra" or Pahari School survived in that region. During the period of the fall of the Mughal empire many libraries belonging to princes and noblemen were destroyed or were dismantled and scattered. Discerning and speculative Europeans in India often purchased the available manuscripts and albums, and many have found their way to England, the Continent of Europe and America, where, fortunately, a large proportion are now in the national collections in London, Paris, Berlin and Vienna, Boston and Washington. Many still survive in India, in temples or among the libraries of



Above (left) : AR. Amyntas, Greek and Kharoshthi inscriptions, *ca* First Century B.C.
Above (right) : AR. Agnimitra of Panchāla, Brāhmi inscription, *ca* Second or First Century B.C.
Below (left) : AV. Samudra Gupta, Brāhmi inscription, *ca* A.D. 370.
Below (right) : AV. Jahangir, Persian inscription, A.D. 1600.



Parasurāmeśvara Temple, Bhuvaneśvar, Orissa (early Ninth Century)

Indian princes and noblemen, and latterly in public libraries and museums, where they are usually accessible for study.

Mural paintings must have been fairly common in Indian palaces and temples during the pre-Muslim period, but most of them perished owing to climate or civil turmoil. The most notable survivals are in the cave temples of Ajanta and Ellora (in the dominions of the Nizam of Hyderabad) and of Bagh (in Gwalior territory). Other fragmentary pieces have been found in Ceylon and in recent years in several parts of South India. The celebrated caves of Ajanta were discovered in 1819 by a company of British troops who were practising manœuvres in the neighbourhood. J. E. Alexander furnished the first account in 1829 in the *Journal of the Royal Asiatic Society*, and at about the same time appeared, in the same journal, the first descriptions of the cave temples of Ellora. Led by James Fergusson, the Society persuaded the East India Company to employ Major Robert Gill to make facsimile copies of the pictures at Ajanta. The result of the labours of Major Gill over a period of nearly twenty years perished during the course of a fire at the Crystal Palace near London in 1866. Five copies which survived are in the Indian section of the South Kensington Museum.

A similar fate at that Museum overtook most of the copies subsequently made at the instance of the Indian Government by Mr. J. Griffiths, with the help of students from the Bombay School of Arts. From the residue, Mr. Griffiths edited for the Indian Government his work *The Paintings in the Buddhist Cave Temples at Ajanta* (London 1896). Some of the copies made by Mr. Griffiths are hung in the Indian Section of the South Kensington Museum.

In 1915 the India Society published a magnificent volume of copies made, between 1909 and 1911, by Lady Herringham with the assistance of British and Indian artists. In the last few years the Government of Hyderabad have published, under the supervision of Mr. G. Yazdani, most valuable coloured photographs of all the pictures as a permanent memorial. Reproductions of the pictures at Bagh, with able commentaries by recognised authorities, have been published by the India Society with the help of the Gwalior Government. Copies are also available now in various works and periodicals of the fragmentary frescos discovered at Ellora and in South India.

As the study of the treasures of Indian art became facilitated by their collection in museums, libraries, or in private hands, it became possible for expert authorities to classify them historically, and to appraise them according to artistic or aesthetic standards. This study was begun, mainly in respect of what was found in the so-called " Gandhara " area, by Masson,

James Prinsep, E. C. Bayley and Alexander Cunningham, and was pursued by James Fergusson.

We have already described the work of Fergusson and Cunningham for Northern Indian architecture and sculpture, and of Burgess for Western and Southern India. The first systematic and historical treatment of the available material was published by V. A. Smith in an article on " Graeco-Roman Influence and Civilisation of Ancient India " in the *Journal of the Asiatic Society of Bengal* in 1889. In 1911, Smith published his *History of Fine Art in India and Ceylon*, where he displayed his customary erudition and thoroughness. The writings of later authorities (most of them happily still alive) have proved a corrective to many theories and opinions propounded by Smith.

Meanwhile, attention was being devoted to the study of the industrial arts of India, of which many fine examples were transferred from the India Office to the Indian section of the South Kensington Museum. In 1880 was published *The Industrial Arts of India* by Sir George Birdwood (1832–1917), who had lived for many years in India and was an acknowledged authority on this branch of Indian Art. The book was illustrated by a great number of excellent woodcuts. During a number of years a very useful *Journal of Indian Art and Industry* was issued by an enterprising publisher in London. In 1881 the Government of Jaipur in Rajputana, the well-known centre of art manufactures in that area, established an Art Museum and an Art School, both of which have for many decades done valuable work. An exhibition in connection with these activities was held at Jaipur in 1883, and, under the superintendence of T. H. Hendley, the Jaipur Darbar (Government) published four sumptuous volumes containing reproductions of some of the most beautiful exhibits. The fourth volume contains facsimiles from the authentic copy of the *Razmnameh* in the possession of the Darbar. The *Razmnameh* was an abridged Persian translation of the Sanskrit epic *Mahabharata*, carried out under the orders of Akbar the Great. This publication prominently drew the attention of connoisseurs to the treasures of Indian painting—of which other collections, as has been said before, were becoming available for study in Europe.

In the second half of the nineteenth century government schools of art were established in the principal cities of India, but unfortunately the teaching in these schools was ill conceived, and produced only very poor copyists of Occidental art. Perhaps the best representative of the Europeanised school of Indian artists was Raja Ravivarma of Travancore. His work had a great vogue in India about fifty years ago, but his fame has been eclipsed by the exponents of the more modern schools of Indian art. Credit for the beginning of the new movement must be given

to E. B. Havell (1861–1934). As Principal of the Calcutta School of Art, he reorganised the Calcutta Art Gallery, and placed the teaching of Indian art on a proper footing by directing the attention of his students to examples of ancient and medieval Indian art. He also broke new ground in his *Indian Sculpture and Painting* (London 1908), and in several subsequent works, by examining Indian art from fresh angles. In 1910, several eminent British artists and critics published in *The Times* a declaration that they found " in the best art of India a lofty and adequate expression of the religious emotion of the people and of their deepest thoughts on the subject of the divine," and they urged their fellow craftsmen and students in India to remain true to themselves. This declaration was followed by the foundation of the India Society, of which the principal promoters were (Sir) William Rothenstein, (Sir) Thomas Arnold (1864–1930), Laurence Binyon (1869–1943), E. B. Havell and T. W. Rolleston. The object of the Society was to bring home to the people, of India as well as Europe, the beauty and interest which underlie the aesthetic culture of India and of the adjacent countries and islands. This work the Society has continued to perform with great success by means of publications (a few have been named above), lectures, exhibitions and a journal.

Meanwhile in India the various art schools have been remodelled on the lines advocated by Havell, and schools of painting and other arts of great vitality are now to be found in different parts of the country. That their work is well appreciated in Europe has been proved by very successful exhibitions in Paris, London and other large centres. Societies (e.g. the Indian Society of Oriental Art in Calcutta) have been publishing fine and authoritative journals such as *Rupam* and its successor, and many exhibitions are also held in India at intervals.

Other fine arts, e.g. music and dancing, have also had a renaissance in India, and there is now an adequate understanding in the West of Eastern methods of expression in these arts. Pioneer work in the explanation of Indian theories of these arts has been done by A. H. Fox-Strangways, in the *Music of Hindustan* (1914), and Dr. Coomaraswany and G. R. Duggivala in the *Mirror of Gesture* (1917), both issued by the India Society.

10. EPILOGUE

Indian culture is now being studied with renewed vigour in the fifteen universities of British India and two in Hyderabad and Mysore State, several of which publish learned series. Since 1936 the Asiatic Society of Bengal has been graciously permitted to use the title Royal. In several

provinces of India, historical or research societies have been formed which issue journals. A spirit of research has thus been aroused and has done much to increase the number of students, quicken thought and change the old methods of mere repetition of waning traditions. In 1916 a School of Oriental and African Studies was opened in London and is a recognised School in the London University. Here provision is made for the teaching of many Oriental languages, and also for the history of the countries in which they are spoken. Under Sir E. Denison Ross as its first Director it rapidly justified its foundation.

In this brief survey of wide fields of research it has been possible to mention only landmarks and a few of the most original pioneers. Most of the latter were men who had a full day's work in their ordinary avocations ; they lived in a trying climate, without the amenities of the present day, and had no access to libraries or works of reference. Some of them may be said to have sacrificed their lives in the pursuit of knowledge. Sir William Jones died at the age of forty-six ; Leyden was not thirty-six, and Prinsep was forty when softening of the brain, due to overwork, carried him off.

Though this review is concerned only with the British contribution to these studies, it is right to recognise the work of men of other nations. At the first International Oriental Congress held after the war of 1914–18, at Oxford in 1928, a speaker said : " The field of Oriental learning was no man's peculiar prerogative ; it was the common heritage of men of learning, irrespective of race . . . The work was international in the highest sense, and all the workers were co-workers in the great cause of national unity." Great names could be quoted from every country in Europe, from Norway in the north to Greece in the south, and from Portugal (which came first in the field) in the west to Russia in the east, and from America, Japan and China.

It has been observed by the editor of the Silver Jubilee volume of the Bhandarkar Oriental Research Institute (Poona, 1942) that " the work done in the field of Indology during the last quarter of a century is thus the result of the labours of Indian as well as Western scholars ".

One result of these studies has been the growth of a mutual respect between British and Indian students. In an address at Cambridge, Professor E. B. Cowell said :

" The several generations of members pass away, but they are continuously linked together by their common aim ; and the former and the present members are all parts of one long series. *Et quasi cursores, vitaï lampada tradunt.*"