came to establish itself and ultimately to extend its sphere over stems with *i-* and *u*-vowels, but that, on meeting here with more resistance@@1 than in the *a* (*ĕ*)-vowel, the stem-gradation then took the shape of a raising of the simple vowel, in the “ strong ” cases and verb-forms, by that same *a*-element which constituted the distinctive element of those cases in the other variable stems? In this way the above equation would still hold good, and the corresponding vowel-grades, though of somewhat different genesis, would yet be strictly analogous. At all events in the opinion of the present writer, the last word has not yet been said on the important point of Indo-Germanic vowel-gradation.

The accent of Sanskrit words is marked only in the more important Vedic texts, different systems of notation being used in different works. Our knowledge of the later accentuation of words is entirely derived from the statements of grammarians. As in Greek, there are three accents, the *udātta* (“ raised,” *i.e.* acute), the *αnudαttα* (“ not raised,” *i.e.* grave), and the *svarita* (“ sounded, modulated,” *i.e.* circumflex). The last is a combination of the two others, its proper use being confined almost entirely to a vowel preceded by a semivowel *y* or *v,* repre­senting an original acuted vowel. Hindu scholars, however, also include in this term the accent of a grave syllable preceded by an

acuted syllable, and itself followed by a grave.

The Sanskrit and Greek accentuations present numerous coincidences. Although the Greek rule, confining the accent within the last three syllables, has frequently obliterated the original likeness, the old features may often be traced through the later forms. Thus, though augmented verb-forms in Greek cannot always have the accent on the augment as in Sanskrit, they have it invariably as little removed from it as the accentual restrictions will allow; *e.g. ábharam, eφeρov*: *ábharãma, eφepoμtev*: *ábharāmahi, eφeρδμeθα.*

The most striking coincidence in noun declension is the accentual distinction made by both languages between the “ strong ” and “ weak ” cases of monosyllabic nouns—the only difference in this respect being that in Sanskrit the accusative plural, as a rule, has the accent on the case-ending, and consequently shows the weak form of the stem; *e.g.* stem *pad, ποδ*: *pádam, πόδα: padās,* ttoÔós: *padí, ττοδί: pádas,* tódes: *padas, πδδαsl Padám, ποδών*: *patsu, πoσl.* In Sanskrit a few other classes of stems (especially present participles in *ant, at*), accented on the last syllable, are apt to yield their accent to heavy vowel (not consonantal) terminations; compare the analogous accentuation of Sanskrit and Greek stems in *tär: pitáram,* πατέρα: *pitré, πaτρ6s'. pitáras, πaτeρes*: *pitṝshu,* **τrαrρ(á)σt.**

The vocative, when heading a sentence (or verse-division), has invariably the accent on the first syllable; otherwise it is not accented.

Finite verb-forms also, as a rule, lose their accent, except when standing at the beginning of a sentence or verse-division (a vocative not being taken into account), or in dependent (mostly relative) clauses, or in conjunction with certain particles. Of two or more co-ordinate verb-forms, however, only the first is unaccented.

In writing Sanskrit the natives, in different parts of India, generally employ the particular character used for writing their own vernacular.

The character, however, most widely understood and employed by Hindu scholars, and used invariably in European editions of Sanskrit works (unless printed in

Roman letters) is the Nãgarî, or “ town-script,” also commonly called *Devanāgarī,* or *nāgarī* of the gods.

The origin of the Indian alphabets is still enveloped in doubt. The oldest hitherto known specimens of Indian writing are a number of rock-inscriptions, containing religious edicts in Pali (the Prakrit used in the southern Buddhist scriptures), issued by the emperor Aśoka (Piyadasi) of the Maurya dynasty, in 253-251 B.c., and scattered over the area of northern India from the vicinity of Pesha- war, on the north-west frontier, and Girnar in Gujarat, to Jaugada and Dhauli in Katak, on the eastern coast. The most western of these inscriptions—those found near Kapurdagarhi or Shāhbāz- garhi, and Mansora—are executed in a different alphabet from the others. It reads from right to left, and is usually called the Arian Pali alphabet, it being also used on the coins of the Greek and Indo-Scythian princes of Ariana; while the other, which reads from left to right, is called the Indian Pali alphabet. The former—also called *Kharoshṭhī* or *Gāndhāra* alphabet (*lipi*)*—*which is manifestly derived from a Semitic (probably Aramaean) source, has left no traces on the subsequent development of Indian writing. The Indo- Pāli (or *Brāhmī*) alphabet, on the other hand, from which the modem Indian alphabets are derived, is of more uncertain origin. The similarity, however, which several of its letters present to those of the old Phoenician alphabet (itself probably derived from the Egyptian hieroglyphics) suggests for this alphabet also the probability of a Semitic origin, though, already at Aśoka’s time, the Indians had worked it up to a high degree of perfection and wonder­

@@@1 We might compare the different treatment in Sanskrit of *an* and ***in*** bases (*mūrdháni-mūrdhná*; *vādíní-vādínā)*; for, though the latter are doubtless of later origin, their inflection might have been expected to be influenced by that of the former. Also a comparison of such forms as (*devá*) *devánām* (*agní*) *agriïnâm,* and *(dhenú) dhenūnám,* tells in favour of the 1- and *u*-vowels, as regards power of resistance, inasmuch as it does not require the accent in order to remain intact.

fully adapted it to their peculiar scientific ends. The question as to the probable time and channel of its introduction can scarcely be expected ever to be placed beyond all doubt. The late Professor Bühler has, however, made it very probable that this alphabet was introduced into India by traders from Mesopotamia about 800 **B.c.** At all events, considering the high state of perfection it exhibits in the Maurya and Andhra inscriptions, as well as the wide area over which these are scattered, it can hardly be doubted that the art of writing must have been known to and practised by the Indians for various purposes long before the time of Aśoka. The fact that no reference to it is found in the contemporary literature has probably to be accounted for by a strong reluctance on the part of the Brahmans to commit their sacred works to writing.

As regards the numeral signs used in India, the Kharoshṭhī inscriptions of the early centuries of our era show a numerical system in which the first three numbers are represented by as many vertical strokes, whilst 4 is marked by a slanting cross, and 5-9 by 4(.+) 1, &c., to 4(+)4(+)1; then special signs for 10, 20 and 100, the intervening multiples of 10 being marked in the vigesimal fashion, thus 50=20(+)20(+)10. This system has been proved to be of Semitic, probably Aramaic, origin. In the Brāhmī in­scriptions up to the end of the 6th century of our era, another system is used in which 1-3 are denoted by as many horizontal strokes, and thereafter by special syllabic signs for 4-9, the decades 10-90, and for 100 and 1000. T his system was most likely derived from hieratic sources of Egypt. The decimal system of cipher notation, on the other hand, which **is** first found used on a Gujarat inscription of **.A.D.** 595, seems to be an invention of Indian astronomers or mathematicians, based on the existing syllabic (or word) signs or equivalents thereof.

The first two Sanskrit grammars published by Europeans were those of the Austrian Jesuit Wesdin, called Paulinus a Sancto Bartholomaeo (Rome, 1790-1804). These were followed by those of H. C. Colebrooke (1805; based on Pāṇini’s system), Carey (1806), Wilkins (1808), Forster (1810), F. Bopp (1827), H. H. Wilson, Th. Benfey, &c. These, as well as those of Max Müller, Monier Williams and F. Kielhorn, now most widely used, deal almost exclusively with classical Sanskrit; whilst that of W. D. Whitney treats the whole language historically; as does also J. Wackernagel’s not yet completed *Altindische Grammatik.*

The first Sanskrit dictionary was that of H. H. Wilson (1819; 2nd ed., 1832), which was followed by the great Sanskrit-German *Wōrterbuch,* published at St Petersburg in 7 vols, by Professors Böhtlingk and Roth. Largely based on this great thesaurus are the Sanskrit-English dictionaries by Sir M. Williams (2nd ed., 1899), Th. Benfey, A. A. Macdonell, &c. On the history of the Indian alphabets, cf. G. Bühler, *Indische Paläographie* (1896); A. C. Burnell, *Elements of South Indian Palaeography* (2nd ed., 1878), R. Cust’s résumé in *Jour. Roy. As. Soc.,* n.s. vol. xvi.

II. Sanskrit Literature

The history of Sanskrit literature labours under the same disadvantage as the political history of ancient India from the total want of anything like a fixed chronology. In that vast range of literary development there is scarcely a work of importance the date of which scholars have fixed with absolute certainty. The original composition of most Sanskrit works can indeed be confidently assigned to certain general periods of literature, but as to many of them, and these among the most important, scholars have but too much reason to doubt whether they have come down to us in their original shape, or whether they have not undergone alterations and additions so serious as to make it impossible to regard them as genuine witnesses of any one phase of the development of the Indian mind. Nor can we expect many important chronological data from new materials brought to light in India. Though by such discoveries a few isolated spots may be lighted up here and there, the real task of clearing away the mist which at present obscures our view, if ever it can be cleared away, will have to be performed by patient research and a more minute critical examination of the multitudinous writings which have been handed down from the remote past. In the following sketch it is intended to take a rapid view of the more important works and writers in the several departments of literature.

In accordance with the two great phases of linguistic develop­ment referred to, the history of Sanskrit literature readily divides itself into two principal periods—the Vedic and the classical. These periods partly overlap, and some of the later Vedic work are included in that period on account of the subjects with which they deal, and for their archaic style, rather than for any just claim to a higher antiquity than may have to be assigned to the oldest works of the classical Sanskrit.