

PREFACE

TO THE FIRST EDITION.

The present grammar, which is chiefly intended for beginners, is believed to contain all the information that a student of Sanskrit is likely to want during the first two or three years of his reading. Rules referring to the language of the Vedas have been entirely excluded, for it is not desirable that the difficulties of that ancient dialect should be approached by any one who has not fully mastered the grammar of the ordinary Sanskrit such as it was fixed by Pāṇini and his successors. All allusions to cognate forms in Greek, Latin, or Gothic, have likewise been suppressed, because, however interesting and useful to the advanced student, they are apt to deprive the beginner of that clear and firm grasp of the grammatical system peculiar to the language of ancient India, which alone can form a solid foundation for the study both of Sanskrit and of comparative philology.

The two principal objects which I have kept in view while composing this grammar have been clearness and correctness. With regard to clearness, my chief model has been the grammar of Bopp; with regard to correctness, the grammar of Colebrooke. If I may hope, without presumption, to have simplified a few of the intricacies of Sanskrit grammar which were but partially cleared up by Bopp, Benfey, Flecchia, and others, I can hardly flatter myself to have reached, with regard to correctness, the high standard of Colebrooke's great, though unfinished work. I can only say in self-defence that it is far more difficult to be correct on every minute point, if one endeavours to rearrange, as I have done, the materials collected by Pāṇini, and to adapt them to the grammatical system current in Europe, than if one follows so closely as Colebrooke the system of native grammarians, and adopts nearly the whole of their technical terminology. The grammatical system elaborated by native grammarians is, in itself, most perfect; and those who have tested Pāṇini's work will readily admit that there is no grammar in any language that could vie with the wonderful mechanism of his eight books of grammatical rules. But unrivalled as that system is, it is not suited to the wants of English students, least of all to the wants of beginners. While availing myself therefore of the materials collected in the grammar of Pāṇini and in later works, such as the *Prakriyā-Kaumudī*, the *Siddhānta-Kaumudī*, the *Sārasvatī Prakriyā*, and the *Mādhavīya-dhātu-vṛtti*, I have abstained, as much as possible, from introducing any more of the peculiar system and of the terminology of Indian

grammarians¹ than has already found admittance into our Sanskrit grammars; nay, I have frequently rejected the grammatical observations supplied ready to hand in their works in order not to overwhelm the memory of the student with too many rules and too many exceptions. Whether I have always been successful in drawing a line between what is essential in Sanskrit grammar and what is not, I must leave to the judgement of those who enjoy the good fortune of being engaged in the practical teaching of a language the students of which may be counted no longer by tens, but by hundreds.² I only wish it to be understood that where I have left out rules or exceptions, contained in other grammars, whether native or European, I have done so after mature consideration, deliberately preferring the less complete to the more complete, but, at the same time, more bewildering statement of the anomalies of the Sanskrit language. Thus, to mention one or two cases, when giving the rules on the employment of the suffixes *vat* and *mat* (§187), I have left out the rule that bases ending in *m*, though the *m* be preceded by other vowels than *a*, always take *vat* instead of *mat*. I did so partly because there are very few bases ending in *m*, partly because, if a word like *kim-vān* should occur, it would be easy to discover the reason why here too *v* was preferred to *m*, viz. in order to avoid the clashing of two *m*'s. I passed over, for very much the same reason, the prohibition given

¹ The few alterations that I have made in the usual terminology have been made solely with a view of facilitating the work of the learner. Thus instead of numbering the ten classes of verbs, I have called each by its first verb. This relieves the memory of much unnecessary trouble, as the very name indicates the character of each class; and though the names may at first sound somewhat uncouth, they are after all the only names recognized by native grammarians. Knowing from my experience as an examiner how difficult it is to remember the merely numerical distinction between the first, second, or third preterites, or the first and second futures, I have kept as much as possible to the terminology with which classical scholars are familiar, calling the tense corresponding to the Greek imperfect, *imperfect*; that corresponding to the perfect, *reduplicated perfect*; that corresponding to the aorist, *aorist*; and the mood corresponding to the optative, *optative*. The names of *periphrastic perfect* and *periphrastic future* tell their own story; and if I have retained the merely numerical distinction between the first and second aorists, it was because this distinction seemed to be more intelligible to a classical scholar than the six or seven forms of the so-called *multiform preterite*. If it were possible to make a change in the established grammar nomenclature, I should much prefer to call the *first* the *second*, and the *second* the *first aorist*; the former being a secondary and compound, the latter a primary and simple tense. But *first* and *second aorists* have become almost proper names, and will not easily yield their place to mere argument.

² In the University of Leipsig alone, as many as fifty pupils attended every year the classes of Professor Brockhaus in order to acquire a knowledge of the elements of Sanskrit, previous to the study of comparative philology under Professor Curtius.

in Pāṇini 3.8.3, viz. that bases ending in *m* are not allowed to form denominatives. It is true, no doubt, that the omission of such rules or exceptions may be said to involve an actual misrepresentation, and that a pupil might be misled to form such words as *kim-mān* and *kim-yati*. But this cannot be avoided in an elementary grammar; and the student who is likely to come into contact with such recondite forms will no doubt be sufficiently advanced to be able to consult for himself the rules of Pāṇini and the explanations of his commentators.

My own fear is that, in writing an elementary grammar, I have erred rather in giving too much than in giving too little. I have therefore in the table of contents marked with an asterisk all such rules as may be safely left out in a first course of Sanskrit grammar,³ and I have in different places informed the reader whether certain portions might be passed over quickly, or should be carefully committed to memory. Here and there, as for instance in §103, a few extracts are introduced from Pāṇini simply in order to give to the student a foretaste of what he may expect in the elaborate works of native grammarians, while lists of verbs like those contained in §332 or §462 are given, as everybody will see, for the sake of reference only. The somewhat elaborate treatment of the nominal bases in *ī* and *ū*, from §220 to §226, became necessary partly because in no grammar had the different paradigms of this class been correctly given, partly because it was impossible to bring out clearly the principle on which the peculiarities and apparent irregularities of these nouns are based without entering fully into the systematic arrangement of native grammarians. Of portions like this I will not say indeed, *μωμήσεται τις μᾶλλον ἢ μιμήσεται*, but I feel that I may say, यत्ने कृते यदि न सिध्यति कीदृत्न दोषः; and I know that those who will take the trouble to examine the same mass of evidence which I have weighed and examined will be the most lenient in their judgement, if hereafter they should succeed better than I have done in unravelling the intricate argumentations of native scholars.⁴

But while acknowledging my obligations to the great grammarians of India, it would be ungrateful were I not to acknowledge as fully the

³ In the second edition all these paragraphs are printed in smaller type.

⁴ To those who have the same faith in the accurate and never swerving argumentations of Sanskrit commentators, it may be a saving of time to be informed that in the new and very useful edition of the *Siddhānta-Kaumudī* by Śrī Tārānātha-tarkavā-caspati there are two misprints which hopelessly disturb the order of the rules on the proper declension of nouns in *ī* and *ū*. On page 136, line 7, read श्रीवत् instead of स्त्रीवत्; this is corrected in the *Corrigenda*, and the right reading is found in the old edition. On the same page, line 13, insert न after विना, or join विनास्त्रीबोधकत्वं.

assistance which I have derived from the works of European scholars. My first acquaintance with the elements of Sanskrit was gained from Bopp's grammar. Those only who know the works of his predecessors, of Colebrooke, Carey, Wilkins, and Forster, can appreciate the advance made by Bopp in explaining the difficulties, and in lighting up, if I may say so, the dark lanes and alleys of the Sanskrit language. I doubt whether Sanskrit scholarship would have flourished as it has, if students had been obliged to learn their grammar from Forster or Colebrooke, and I believe that to Bopp's little grammar is due a great portion of that success which has attended the study of Sanskrit literature in Germany. Colebrooke, Carey, Wilkins, and Forster worked independently of each other. Each derived his information from native teachers and from native grammars. Among these four scholars, Wilkins seems to have been the first to compose a Sanskrit grammar, for he informs us that the first printed sheet of his work was destroyed by fire in 1795. The whole grammar, however, was not published till 1808. In the mean time Forster had finished his grammar, and had actually delivered his MS to the Council of the College of Fort William in 1804. But it was not published till 1810. The first part of Colebrooke's grammar was published in 1805, and therefore stands first in point of time of publication. Unfortunately it was not finished, because the grammars of Forster and Carey were then in course of publication, and would, as Colebrooke imagined, supply the deficient part of his own. Carey's grammar was published in 1806. Among these four publications, which as first attempts at making the ancient language of India accessible to European scholars, deserve the highest credit, Colebrooke's grammar is *facile princeps*. It is derived at first hand from the best native grammars, and evinces a familiarity with the most intricate problems of Hindu grammarians such as few scholars have acquired after him. No one can understand and appreciate the merits of this grammar who has not previously acquired a knowledge of the grammatical system of Pāṇini, and it is a great loss to Sanskrit scholarship that so valuable a work should have remained unfinished.

I owe most, indeed, to Colebrooke and Bopp, but I have derived many useful hints from other grammars also. There are some portions of Wilson's grammar which show that he consulted native grammarians, and the fact that he possessed the remaining portion of Colebrooke's⁵ MS gives to his list of verbs, with the exception of the *bhū* class, which was

⁵ See Wilson's *Sanskrit and English Dictionary*, first edition, preface, p. xlv.

published by Colebrooke, a peculiar interest. Professor Benfey in his large grammar performed a most useful task in working up independently the materials supplied by Pāṇini and Bhaṭṭoji Dikṣita; and his smaller grammars too, published both in German and in English, have rendered good service to the cause of sound scholarship. There are besides, the grammars of Boller in German, of Oppert in French, of Westergaard in Danish, of Flecchia in Italian, each supplying something that could not be found elsewhere, and containing suggestions, many of which have proved useful to the writer of the present grammar.

But while thus rendering full justice to the honest labours of my predecessors, I am bound to say, at the same time, that with regard to doubtful or difficult forms, of which there are many in the grammar of the Sanskrit language, not one of them can be appealed to as an ultimate authority. Every grammar contains, as is well known, a number of forms which occur but rarely, if ever, in the literary language. It is necessary, however, for the sake of systematic completeness to give these forms; and if they are to be given at all, they must be given on competent authority. Now it might be supposed that a mere reference to any of the numerous grammars already published would be sufficient for this purpose, and that the lists of irregular or unusual forms might safely be copied from their pages. But this is by no means the case. Even with regard to regular forms, whoever should trust implicitly in the correctness of any of the grammars hitherto published would never be certain of having the right form. I do not say this lightly or without being able to produce proofs. When I began to revise my manuscript grammar which I had composed for my own use many years ago, and when on points on which I felt doubtful, I consulted other grammars, I soon discovered either that, with a strange kind of sequacity, they all repeated the same mistake, or that they varied wildly from each other without assigning any reason or authority. I need not say that the grammars which we possess differ very much in the degree of their trustworthiness; but with the exception of the first volume of Colebrooke and of Professor Benfey's larger Sanskrit grammar, it would be impossible to appeal to any of my predecessors as an authority on doubtful points. Forster and Carey, who evidently depend almost entirely on materials supplied to them by native assistants, give frequently the most difficult forms with perfect accuracy, while they go wildly wrong immediately after, without, it would seem, any power of controlling their authorities. The frequent inaccuracies in the grammars of Wilkins and Wilson have been pointed out by

others; and however useful these works may have been for practical purposes, they were never intended as authorities on contested points of Sanskrit grammar.

Nothing remained, in fact, in order to arrive at any satisfactory result, but to collate the whole of my grammar with regard not only to the irregular but likewise to the regular forms, with Pāṇini and other native grammarians, and to supply for each doubtful case, and for rules that might seem to differ from those of any of my predecessors, a reference to Pāṇini or to other native authorities. This I have done, and in so doing I had to rewrite nearly the whole of my grammar; but though the time and trouble expended on this work have been considerable, I believe that they have not been bestowed in vain. I only regret that I did not give these authoritative references throughout the whole of my work,⁶ because, even where there cannot be any difference of opinion, some of my readers might thus have been saved the time and trouble of looking through Pāṇini to find the *sūtras* that bear on every form of the Sanskrit language.

By this process which I have adopted, I believe that on many points a more settled and authoritative character has been imparted to the grammar of Sanskrit than it possessed before; but I do by no means pretend to have arrived on all points at a clear and definite view of the meaning of Pāṇini and his successors. The grammatical system of Hindu grammarians is so peculiar that rules which we should group together are scattered about in different parts of their manuals. We may have the general rule in the last, and the exceptions in the first book, and even then we are by no means certain that exceptions to these exceptions may not occur somewhere else. I shall give but one instance. There is a root जागृ *jāgr*, which forms its aorist by adding इषम् *iṣam*, ईः *iḥ*, ईत् *īt*. Here the simplest rule would be that final ऋ *r* before इषम् *iṣam* becomes र् *r* (Pāṇini, 6.1.77). This, however, is prevented by another rule which requires that final ऋ *r* should take guṇa before इषम् *iṣam* (Pāṇini, 7.3.84). This would give us अजागरिषम् *ajāgar-iṣam*. But now comes another general rule (Pāṇini, 7.2.1) which prescribes vṛddhi of final vowels before इषम् *iṣam*, i.e. अजागरिषम् *ajāgāriṣam*. Against this change, however, a new rule is cited (Pāṇini, 7.3.85), and this secures for जागृ *jāgr* a special exception from vṛddhi, and leaves its base again as जागृ *jāgar*. As soon as the base has been changed to जागृ *jāgar*, it falls under a new rule (Pāṇini, 7.2.3), and is forced to take vṛddhi until this rule is again nullified by Pāṇini 7.2.4, which does not allow vṛddhi in

⁶ They have been in the second edition.

an aorist that takes intermediate इ *i*, like अजागरिषम् *ajāgarīṣam*. There is an exception, however, to this rule also for bases with short अ *a* beginning and ending with a consonant may optionally take vṛddhi (Pāṇini, 7.2.7). This option is afterwards restricted, and roots with short अ *a*, beginning with a consonant and ending in र् *r*, like जागर् *jāgar*, have no option left, but are restricted afresh to vṛddhi (Pāṇini, 7.2.2). However, even this is not yet the final result. Our base जागर् *jāgar* is after all not to take vṛddhi, and hence a new special rule (Pāṇini, 7.2.5) settles the point by granting to जागृ *jāgr* a special exception from vṛddhi and thereby establishing its guṇa. No wonder that these manifold changes and chances in the formation of the first aorist of जागृ *jāgr* should have inspired a grammarian, who celebrates them in the following couplet:

गुणो वृद्धिर्गुणो वृद्धिः प्रतिषेधो विकल्पनं ।
पुनर्वृद्धिर्निषेधोऽतो यणपूर्वाः प्राप्रयो नव ॥

“Guṇa, vṛddhi, guṇa, vṛddhi, prohibition, option, again vṛddhi and then exception, these, with the change of र् into a semivowel in the first instance, are the nine results.”

Another difficulty consists in the want of critical accuracy in the editions which we possess of Pāṇini, the *Siddhānta-Kaumudī*, the *Laghu-Kaumudī*, the *Sārasvatī*, and Vopadeva. Far be it from me to wish to detract from the merits of native editors, like Dharaṇīdhara, Kāśīnātha, Tārānātha, still less from those of Professor Boehtlingk, who published his text and notes nearly thirty years ago, when few of us were able to read a single line of Pāṇini. But during those thirty years considerable progress has been made in unravelling the mysteries of the grammatical literature of India. The commentary of Sāyaṇa to the Rīgveda has shown us how practically to apply the rules of Pāṇini; and the translation of the *Laghu-Kaumudī* by the late Dr Ballantyne has enabled even beginners to find their way through the labyrinth of native grammar. The time has come, I believe, for new and critical editions of Pāṇini and his commentators. A few instances may suffice to show the insecurity of our ordinary editions. The commentary to Pāṇini 7.2.42, as well as the *Sārasvatī* 2.25.1, gives the benedictive ātmanepada चरीषीष्ट *varīṣīṣṭa* and स्तरीषीष्ट *stariṣīṣṭa*; yet a reference to Pāṇini 7.2.39 and 40 shows that these forms are impossible. Again, if Pāṇini (8.3.92) is right—and how could the Infallible be wrong?—in using अग्रगामिनि *agraḡāmini* with a dental *n* in the last syllable, it is clear that he extends the prohibition given in 8.4.34, with regard to *upasargas*, to other compounds. It is useless to inquire whether in doing so he was right or

wrong, for it is an article of faith with every Hindu grammarian that whatever word is used by Pāṇini in his *sūtras* is *eo ipso* correct. Otherwise, the rules affecting compounds with *upasargas* are by no means identical with those that affect ordinary compounds; and though it may be right to argue *a fortiori* from प्रगामिनि *pragāmini* to अग्रगामिनि *agragāmini*, it would not be right to argue from अग्रयान *agrayāna* to प्रयान *prayāna*, this being necessarily प्रयाण *prayāṇa*. But assuming अग्रगामिनि *agragāmini* to be correct, it is quite clear that the compounds स्वर्गकामिणौ *svargakāmiṇau*, वृषगामिणौ *vṛṣagāmiṇau*, हरिकामाणि *harikāmāṇi*, and हरिकामेण *harikāmeṇa*, given in the commentary to 8.4.13, are all wrong, though most of them occur not only in the printed editions of Pāṇini and the *Siddhānta-Kaumudī*, but may be traced back to the MSS of the *Prakriyā-Kaumudī*, the source, though by no means the model, of the *Siddhānta-Kaumudī*. I was glad to learn from my friend Professor Goldstücker, who is preparing an edition of the *Kāśikāvṛtti*, and whom I consulted on these forms, that the MSS of Vāmana which he possesses carefully avoid these faulty examples to Pāṇini 8.4.13.

After these explanations I need hardly add that I am not so sanguine as to suppose that I could have escaped scot free where so many men of superior knowledge and talent have failed to do so. All I can say is that I shall be truly thankful to any scholar who will take the trouble to point out any mistakes into which I may have fallen; and I hope that I shall never so far forget the regard due to truth as to attempt to represent simple corrections, touching the declension of nouns or the conjugation of verbs, as matters of opinion, or so far lower the character of true scholarship as to appeal, space on such matters, from the verdict of the few to the opinion of the many.

Hearing from my friend Professor Bühler that he had finished a Sanskrit syntax, based on the works of Pāṇini and other native grammarians, which will soon be published, I gladly omitted that portion of my grammar. The rules on the derivation of nouns by means of *kṛt*, *uṇādi*, and *taddhita* suffixes do not properly belong to the sphere of an elementary grammar. If time and health permit, I hope to publish hereafter, as a separate treatise, the chapter of the *Prakriyā-Kaumudī* bearing on this subject.

In the list of verbs which I have given as an appendix, pp. 245–299, I have chiefly followed the *Prakriyā-Kaumudī* and the *Sārasvatī*. These grammars do not conjugate every verb that occurs in the *Dhātupāṭha*, but those only that serve to illustrate certain grammatical rules. Nor do they adopt, like the *Siddhānta-Kaumudī*, the order of the verbs as given in Pāṇini's *Dhātupāṭha*, but they group the verbs of each class according to their

voices, treating together those that take the terminations of the paras-
maipada, those that take the terminations of the ātmanepada, and, lastly,
those that admit of both voices. In each of these subdivisions, again, the
simple verbs are so arranged as best to illustrate certain grammatical rules.
In making a new selection among the verbs selected by Rāmachandra and
Anubhūtiśvarūpāchārya, I have given a preference to those which occur
more frequently in Sanskrit literature and to those which illustrate some
points of grammar of peculiar interest to the student. In this manner I
hope that the appendix will serve two purposes: it will not only help the
student, when doubtful as to the exact forms of certain verbs, but it will
likewise serve as a useful practical exercise to those who, taking each verb
in turn, will try to account for the exact forms of its persons, moods, and
tenses by a reference to the rules of this grammar. In some cases refer-
ences have been added to guide the student, in others he has to find by
himself the proper warranty for each particular form.

My kind friends Professor Cowell and Professor Kielhorn have revised
some of the proof-sheets of my grammar, for which I beg to express to
them my sincere thanks.

F. MAX MÜLLER.

PARIS,
5th April, 1866.

PREFACE

TO THE SECOND EDITION.

The principal alterations in the new edition of my Sanskrit grammar con-
sist in a number of additional references to Pāṇini, in all cases where an
appeal to his authority seemed likely to be useful, and in the introduction
of the marks of the accent. I have also been able to remove a number
of mistakes and misprints which, in spite of all the care I had taken, had
been overlooked in the first edition. Most of these I had corrected in
the German translation of my grammar, published at Leipzig in 1868;
some more have now been corrected. I feel most grateful to several of my
reviewers for having pointed out these oversights, and most of all to Pandit
Rājārāmaśāstrī, whose list of notes and queries to my grammar has been of
the greatest value to me. It seems almost hopeless for a European scholar
to acquire that familiarity with the intricate system of Pāṇini which the
Pandits of the old school in India still possess; and although some of their

refinements in the interpretation of Pāṇini's rules may seem too subtle, yet there can be no doubt that these living guides are invaluable to us in exploring the gigantic labyrinth of ancient Sanskrit grammar.

There is, however, one difficulty which we have to contend with, and which does not exist for them. They keep true throughout to one system, the system of Pāṇini; we have to transfer the facts of that system into our own system of grammar. What accidents are likely to happen during this process I shall try to illustrate by one instance. Rājārāmaśāstrī objects to the form पुंसु *punsu* as the locative plural of पुमान् *pumān*. From his point of view, he is perfectly right in his objection, for according to Pāṇini the locative plural has anusvāra, पुंसु *pumsu*. But in our own Sanskrit grammars we first have a general rule that स् is changed to ष after any vowel except अ, in spite of intervening anusvāra (see §100); and it has even been maintained that there is some kind of physiological reason for such a change. If then, after having laid down this rule, we yet write पुंसु *punsu*, we simply commit a grammatical blunder; and I believe there is no Sanskrit grammar, except Colebrooke's, in which that blunder has not been committed. In order to avoid it, I wrote पुन्सु *punsu*, thus, by the retention of the dental न *n*, making it grammatically and physically possible for the स् *s* to remain unchanged. It may be objected that on the same ground I ought to have written instrumental पुन्सा *punsā*, genitive पुन्सः *punsah*, &c.; but in these cases the स् *s* is radical, and would therefore not be liable to be changed into ष after a vowel and anusvāra (Pāṇini, 8.3.59). Professor Weber had evidently overlooked these simple rules, or he would have been less forward in blaming Dr Keller for having followed my example in writing पुन्सु *punsu*, instead of पुंसु *pumsu*. In Pāṇini's grammar (as may be seen from my note appended to §100) the rule on the change of स् *s* into ष is so carefully worded that it just excludes the case of पुंसु *pumsu*, although the सु *su* of the locative plural is preceded by an anusvāra. I have now, by making in my second edition the same reservation in the general rule, been able to conform to Pāṇini's authority, and have written पुंसु *pumsu*, instead of पुन्सु *punsu*, though even thus the fact remains that if the dot is really meant for anusvāra, and if the सु *su* is the termination of the locative plural, the स् *s* would be sounded as ष, according to the general tendency of the ancient Sanskrit pronunciation.

I have mentioned this one instance in order to show the peculiar difficulties which the writer of a Sanskrit grammar has to contend with in trying to combine the technical rules of Pāṇini with the more rational principles of European grammar; and I hope it may convince my readers,

and perhaps even Professor Weber, that where I have deviated from the ordinary rules of our European grammars, or where I seem to have placed myself at variance with some of the native authorities, I have not done so without having carefully weighed the advantages of the one against those of the other system.

F. MAX MÜLLER.

PARKS END, OXFORD,
August, 1870.

CHAPTER I. THE ALPHABET.

§ 1. Sanskrit is properly written with the Devanāgarī alphabet; but the Bengali, Grantha, Telugu, and other modern Indian alphabets are commonly employed for writing Sanskrit in their respective provinces.

Note—*Devanāgarī* means the *Nāgarī* of the gods, or, possibly, of the Brāhmins. A more current style of writing, used by Hindus in all common transactions where Hindi is the language employed is called simply *Nāgarī*. Why the alphabet should have been called *Nāgarī* is unknown. If derived from *nagara*, city, it might mean the art of writing as first practised in cities (Pāṇini, 4.2.128). No authority has yet been adduced from any ancient author for the employment of the word *Devanāgarī*. In the *Lalitavistara* (a life of Buddha, translated from Sanskrit into Chinese 76 a.d.), where a list of alphabets is given, the *Devanāgarī* is not mentioned, unless it be intended by the *Deva* alphabet. (See *History of Ancient Sanskrit Literature*, p. 518.) Al-Biruni, in the 11th century, speaks of the *Nagara* alphabet as current in Malva (Reinaud, *Mémoire sur l'Inde*, p. 298).

Beghrām (*bhagārāma*, abode of the gods) is the native name of one or more of the most important cities founded by the Greeks, such as Alexandria ad Caucasum or Nicæa. (See Mason's *Memoirs* in Prinsep's *Antiquities*, ed. Thomas, vol. 1. pp. 344–350.) Could Devanāgarī have been meant as an equivalent of Beghrāmi?

No inscriptions have been met with in India anterior to the rise of Buddhism. The earliest authentic specimens of writing as the inscriptions of king Priyadarśi or Aśoka, about 250 b.c. These are written in two different alphabets. The alphabet which is found in the inscription of Kapurdigiri, and which in the main is the same as that of the Arianian coins, is written from right to left. It is clearly of Semitic origin, and most closely connected with the Aramaic branch of the old Semitic or Phoenician alphabet. The Aramaic letters, however, which we know from Egyptian and Palmyrenian inscriptions, have experienced further changes since they served as the model for the alphabet of Kapurdigiri, and we must have recourse to the more primitive types of the ancient Hebrew coins and of the Phoenician inscriptions in order to explain some of the letters of the Kapurdigiri alphabet.

But while the transition of the Semitic types into this ancient Indian alphabet can be proved with scientific precision, the second Indian alphabet, that which is found in the inscription of Girnar, and which is the real source of all other Indian alphabets, as well as of those of Tibet and Burma, has not as yet been traced back in a satisfactory manner to any Semitic prototype (Prinsep's *Indian Antiquities* by Thomas, vol. 2, p. 42). To admit, however, the independent invention of a native Indian alphabet is impossible. Alphabets were never invented, in the usual sense of that word. They were formed gradually, and purely phonetic alphabets always point back to earlier, syllabic or ideographic, stages. There are no such traces of the growth of an alphabet on Indian soil; and it is to be hoped that new discoveries may still bring to light the intermediate links by which the alphabet of Girnar, and through it the modern Devanāgarī, may be connected with one of the leading Semitic alphabets.

§ 2. Sanskrit is written from left to right.

Note—*Saṁskṛta* (संस्कृत) means what is rendered fit or perfect. But Sanskrit is not called so because the Brāhmins, or still less, because the first Europeans who became acquainted with it, considered it the most perfect of all languages. *Saṁskṛta* meant what is rendered fit for sacred purposes; hence purified, sacred. A vessel that is purified, a sacrificial victim that is properly dressed, a man who has passed through all the initiatory rites or *saṁskāras*; all these are called *saṁskṛta*. Hence the language which alone was fit for sacred acts, the ancient idiom of the Vedas, was called *Saṁskṛta*, or the sacred language. The local spoken dialects

received the general name of *prākṛta*. This did not mean originally vulgar, but derived, secondary, second-rate, literally 'what has a source or type,' this source or type (*prakṛti*) being the Saṁskṛta or sacred language. (See Vararuci's *Prākṛta-Prakāśa*, ed. Cowell, p. xvii.)

The former explanation of *prākṛta* in the sense of 'the natural, original continuations of the old language (*bhāṣā*),' is untenable, because it interpolates the idea of continuation. If *prākṛta* had to be taken in the sense of 'original and natural,' a language so called would mean, as has been well shown by D'Alwis (*An Introduction to Kaccāyana's Grammar*, p. lxxxix), the original language, and *saṁskṛta* would then have to be taken in the sense of 'refined for literary purposes.' This view, however, of the meaning of these two names, is opposed to the view of those who framed the names, and is rendered impossible by the character of the Vedic language.

§ 3. In writing the Devanāgarī alphabet, the distinctive portion of each letter is written first, then the perpendicular, and lastly the horizontal line. Ex. X, X, क *k*; X, X, ख *kh*; X, X, ग *g*; X, X, घ *gh*; X, उ *u*, &c.

Beginners will find it useful to trace the letters on transparent paper till they know them well and can write them fluently and correctly.

§ 4. The following are the sounds which are represented in the Devanāgarī alphabet:

	Hard, (tenues.)	Hard and aspi- rated, (tenues aspiratae.)	Soft, (mediae.)	Soft and aspi- rated, (mediae aspiratae.)	Nasals.	Liq- uids.	Sibi- lants.	Vowels Long Short	Diph- thongs.
1. Gutturals,	क <i>k</i>	ख <i>kh</i>	ग <i>g</i>	घ <i>gh</i>	ङ <i>ṅ</i>	ह <i>h</i> ⁷	X ⁸ (<i>χ</i>)	अ <i>a</i> आ <i>ā</i>	ए <i>e</i> ऐ <i>ai</i>
2. Palatals,	च <i>c</i>	छ <i>ch</i>	ज <i>j</i>	झ <i>jh</i>	ञ <i>ñ</i>	य <i>y</i>	श <i>ś</i>	इ <i>i</i> ई <i>ī</i>	
3. Linguals,	ट <i>ṭ</i>	ठ <i>ṭh</i>	ड <i>ḍ</i> ⁹	ढ <i>ḍh</i>	ण <i>ṇ</i>	र <i>r</i>	ष <i>ṣ</i>	ऋ <i>ṛ</i> ॠ <i>ṝ</i>	ओ <i>o</i> औ <i>au</i>
4. Dentals,	त <i>t</i>	थ <i>th</i>	द <i>d</i>	ध <i>dh</i>	न <i>n</i>	ल <i>l</i>	स <i>s</i>	ल् <i>ḷ</i> (ल् <i>ḹ</i>)	
5. Labials,	प <i>p</i>	फ <i>ph</i>	ब <i>b</i>	भ <i>bh</i>	म <i>m</i>	व <i>v</i> ¹⁰	X (<i>φ</i>)	उ <i>u</i> ऊ <i>ū</i>	

Unmodified nasal or *anusvāra*, ◌: *m̐* or ◌ X.

Unmodified sibilant or *visarga*, ◌: *ḥ*.

Students should be cautioned against using the Roman letters instead of the Devanāgarī when beginning to learn Sanskrit. The paradigms should be impressed on the memory in their real and native form, otherwise their first impressions will become unsettled and indistinct. After some

⁷ ह *h* is not properly a liquid, but a soft breathing.

⁸ The signs for the guttural and labial sibilants have become obsolete, and are replaced by the two dots ◌: *ḥ*.

⁹ In the Veda ड *ḍ* and ढ *ḍh*, if between two vowels, are in certain schools written ढ *ḍ̄* and .

¹⁰ व *v* is sometimes called *dento-labial*.

progress has been made in mastering the grammar and in reading Sanskrit, the Roman alphabet may be used safely and with advantage.

§ 5. There are fifty letters in the Devanāgarī alphabet: thirty-seven consonants and thirteen vowels, representing every sound of the Sanskrit language.

§ 6. One letter, the long ऌ, is merely a grammatical invention; it never occurs in the spoken language.

§ 7. Two sounds, the guttural and labial sibilants, are now without distinctive representatives in the Devanāgarī alphabet. They are called *jihāmūliya*, the tongue-root sibilant, formed near the base of the tongue; and *upadhmāniya*, i.e. *afflandus*, the labial sibilant. They are said to have been represented by the signs XXX (called *vajrākṛti*, having the shape of the thunderbolt) and XXX (called *gajakumbhākṛti*, having the shape of an elephant's two frontal bones). (See Vopadeva's *Sanskrit Grammar*, 1. 18; *History of Ancient Sanskrit Literature*, p. 508.) Sometimes the sign XXX, called *ardhavisarga*, half-visarga, is used for both. But in common writing these two signs are now replaced by the two dots, the *dvivindu*, ∴, (*dvi*, two, *vin*du, dot) properly the sign of the unmodified visarga. The old sign of the visarga is described in the *Kātantra* as like the figure 4; in the *Tantrābhidhāna* as like two ʈ's. (See Princep, *Indian Antiquities*, vol. 1. p. 75.)

§ 8. There are five distinct letters for the five nasals, ण्, ञ्, ण्, न्, म्, as there were originally five distinct signs for the five sibilants. When, in the middle of words, these nasals are followed by consonants of their own class, (ṇ by *k, kh, g, gh*; ñ by *c, ch, j, jh*; ṇ by *ṭ, ṭh, ḍ, ḍh*; n by *t, th, d, dh*; m by *p, ph, b, bh*), they are often, for the sake of more expeditious writing, replaced by the dot, which is properly the sign of the unmodified nasal or anusvāra. Thus we find

अंकिता instead of अङ्किता *aṅkitā*

अंचिता instead of अञ्चिता *añcitā*

कुंदिता instead of कुण्डिता *kuṇḍitā*

नंदिता instead of नन्दिता *nanditā*

कंपिता instead of कम्पिता *kampitā*

The pronunciation remains unaffected by this style of writing. अंकिता must be pronounced as if it were written अङ्किता *aṅkitā*, &c.

The same applies to final म् *m* at the end of a sentence. This too, though frequently written and printed with the dot above the line, is to be pronounced as म् *m*. अहं, I, is to be pronounced like अहम् *aham*. (See preface to *Hitopadeśa*, in M. M.'s *Handbooks for the Study of Sanskrit*, p. viii.)

Note—According to the Kaumāras final म् *m* in *pausā* may be pronounced as *anusvāra*; cf. *Sārasvatī-prakriyā*, ed. Bombay, 1829,¹¹ pp. 12 and 13. कौमारास्त्ववसानेऽप्पनुस्वारमिच्छति । अवसाने वा । अवसाने सकारस्यानुस्वारो भवति २३. । देवं । देवम् ।। The Kaumāras are the followers of Kumāra, the reputed author of the Kātantra or Kalāpa grammar. (See Colebrooke, *Sanskrit Grammar*, preface; and page 315, note.) Śarvavarman is sometimes quoted by mistake as the author of this grammar, and an unnecessary distinction is made between the Kaumāras and the followers of the Kalāpa grammar.

§ 9. Besides the five nasal letters, expressing the nasal sound as modified by guttural, palatal, lingual, dental, and labial pronunciation, there are still three nasalized letters, the यँ, लँ, वँ, or यं, लं, वं, XXX, XXX, XXX, which are used to represent a final म् *m*, if followed by an initial य् *y*, ल् *l*, व् *v*, and modified by the pronunciation of these three semivowels (Pāṇini, 8.4.59).

Thus instead of तं याति *taṁ yāti* we may write तय्याति *taX yāti*;

instead of तं लभते *taṁ labhate* we may write तल्लभते *taX labhate*;

instead of तं वहति *taṁ vahati* we may write तव्वहति *taX vahati*.

Or in composition,

संयानं *saṁyānaṁ* or सयानं *saXyānaṁ*;

संलब्धं *saṁlabdhaṁ* or सलब्धं *saXlabdhaṁ*;

संवहति *saṁvahati* or सर्वहति *saXvahati*.

But never if the म् *m* stands in the body of a word, such as काम्यः *kāmyaḥ*; nor if the semivowel represents an original vowel, e.g. Rigveda 10. 132, 3. सम् उ आरन् *sam u āran*, changed to सम्वारन् *samvāran*.

§ 10. The only consonants which have no corresponding nasals are र् *r*, श् *ś*, ष् *ṣ*, स् *s*, ह् *h*. A final म् *m*, therefore, before any of these letters at the beginning of words can only be represented by the neutral or unmodified nasal, the *anusvāra*.

तं रक्षति *taṁ rakṣati*. Or in composition, संरक्षति *saṁrakṣati*.

तं श्रणोति *taṁ śṛṇoti*.

संश्रणोति *saṁśṛṇoti*.

तं षकारं *taṁ ṣakāraṁ*.

संष्ठीवति *saṁṣṭhīvati*.

तं सरति *taṁ sarati*.

संसरति *saṁsarati*.

तं हरति *taṁ harati*.

संहरति *saṁharati*.

§ 11. In the body of a word the only letters which can be preceded by *anusvāra* are श् *ś*, ष् *ṣ*, स् *s*, ह् *h*. Thus अंशः *aṁśaḥ*, धनूषि *dhanūṣi*, यशांसि *yaśāṁsi*, सिंहः *siṁhaḥ*. Before the semivowels य् *y*, र् *r*, ल् *l*, व् *v*, the म् *m* in

¹¹ This edition, which has lately been reprinted, contains the text—asccribed either to Vāṇī herself, i.e. Sarasvatī, the goddess of speech (MS Bodl. 386), or to Anubhūti-svarūpa-āchārya, whoever that may be—and a commentary. The commentary printed in the Bombay editions is called महीधरी, or in MS Bodl. 382 मैदासी, i.e. महीदासी. In MS Bodl. 382 Mahīdhara or Mahīdāsabhaṭṭa is said to have written the *Sārasvata* in order that his children might read it, and to please Īśa, the Lord. The date given is 1634, the place Benares (Śivarājadhani).

the body of a word is never changed into anusvāra. Thus गम्यते *gamyate*, नमः *namrah*, अम्लः *amlaḥ*. In शंयोः *śamyoh* (Rv. 1. 43, 4, &c.) the *ṁ* stands 'padānte,' but not in शाम्यति *śāmyati*. (See §9.)

§ 12. With the exception of *jihvāmūliya* X *χ* (tongue-root letter), *upadhmāniya* X *φ* (to be breathed on), anusvāra *ṁ* (after-sound), visarga *ḥ* (emission, see Taitt.-Brāhm. iii. p. 23 a), and *repha* *r* (burring), all letters are named in Sanskrit by adding *kāra* (making) to their sounds. Thus अ *a* is called अकारः *akārah*; क *ka*, ककारः *kakārah*.

§ 13. The vowels, if initial, are written,
अ, आ, इ, ई, ऋ, ॠ, ए, ऐ, ओ, औ;

a, ā, i, ī, ṛ, ṝ, l, l̄, u, ū, e, ai, o, au;

if they follow a consonant, they are written with the following signs—

ः, ा, ि, ी, ृ, ॄ, ॆ, ै, ॊ, ै, ो, ौ.

a, ā, i, ī, ṛ, ṝ, l, l̄, u, ū, e, ai, o, au.

There is one exception. If the vowel ऋ *r* follows the consonant र *r*, it retains its initial form, and the *r* is written over it. Ex. निरृतिः *nirṛtiḥ*.

In certain words which tolerate an hiatus in the body of a word, the second vowel is written in its initial form. Ex. गोअग्र *goagra*, adj. preceded by cows, instead of गोऽग्र *go'gra* or गवाग्र *gavāgra*; गोअश्व *goasvaṁ*, cows and horses; प्रउग *prauḡa*, yoke; तितउ *titaü*, sieve.

§ 14. Every consonant, if written by itself, is supposed to be followed by a short *a*. Thus क is not pronounced *k*, but *ka*; य not *y*, but *ya*. But क *k* or any other consonant, if followed by any vowel except *a*, is pronounced without the inherent *a*. Thus

का *kā*, कि *ki*, की *kī*, कृ *kr*, कृ *kṛ*, क्ल *kl*, (क्ल *kl̄*), कु *ku*, कू *kū*, के *ke*, कै *kai*, को *ko*, कौ *kau*.

The only peculiarity is that short ि *i* is apparently written before the consonant after which it is sounded. This arose from the fact that in the earliest forms of the Indian alphabet the long and short *i*'s were both written over the consonant, the short *i* inclining to the left, the long *i* inclining to the right. Afterwards these top-marks were, for the sake of distinctness, drawn across the top-line, so as to become कि and की, instead of X and X. (See Prinsep's *Indian Antiquities*, ed. Thomas, vol. ii. p. 40.)

§ 15. If a consonant is to be pronounced without any vowel after it, the consonant is said to be followed by *virāma*, i.e. stoppage, which is marked by ्. Thus *ak* must be written अक्; *kar*, कर्; *ik*, इक्.

§ 16. If a consonant is followed immediately by another consonant, the two or three or four or five or more consonants are written in one group (*saṃyoga*). Thus *akta* is written अत्क; *alpa* is written अल्प; *kārtsnya* is written कार्त्स्न्य. These groups or compound consonants must be learnt by practice. It is easy, however, to discover some general laws in their formation. Thus the perpendicular and horizontal lines are generally dropt in one of the letters: क् + क = क्क *kka*; न् + द = न्द *nda*; त् + व = त्व *tva*; स् + ख = स्ख *skha*; च् + य = च्य *cya*; प् + त = प्त *pta*; क् + त = क्त *кта*; क् + त् + व = क्त्व *ktva*; क् + त् + य = क्त्य *ktya*.

§ 17. The र् preceding a consonant is written by XXX placed at the top of the consonant before which it is to be sounded. Thus अर् + क = अर्क *arka*; वर् + ष् + म = वर्ष्म *varṣma*. This sign for र् *r* is placed to the right of any other marks at the top of the same letter. Ex. अर्क *arkam*; अर्केण *arkeṇa*; अर्केन्दू *arkendū*.

क् *k* followed by ष् *ṣ* is written क्ष or XXX *kṣa*.

ज् *j* followed by ण *ṇ* is written ज्ञ *jña*.

झ *jh* is sometimes written XXX.

र् *r* followed by उ *u* and ऊ *ū* is written रु *ru*, रू *rū*.

द् *d* followed by उ *u* and ऊ *ū* is written दु *du*, दू *dū*.

श *ś*, particularly in combination with other letters, is frequently written XXX. Ex. शु *śu*; शू *śū*; श्र *śra*.

§ 18. The sign of *virāma* ् (stoppage), which if placed at the foot of a consonant, shows that its inherent short *a* is stopped, is sometimes, when it is difficult to write (or to print) two or three consonants in one group, placed after one of the consonants: thus युङ्क्ते instead of युङ्क्ते *yukṭe*.

§ 19. The proper use of the *virāma*, however, is at the end of a sentence, or portion of a sentence, the last word of which ends in a consonant.

At the end of a sentence, or of a half-verse, the sign । is used; at the end of a verse, or of a longer sentence, the sign ।।

§ 20. The sign ऽ (*avagraha* or *arddhākāra*) is used in most editions to mark the elision of an initial अ *a*, after a final ओ *o* or ए *e*. Ex. सोऽपि *so'pi* for सो अपि *so api*, i.e. सस् अपि *sas api*; तेऽपि *te'pi* for ते अपि *te api*.

List of Compound Consonants

Numerical Figures

§ 21. The numerical figures in Sanskrit are

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

These figures were originally abbreviations of the initial letters of the Sanskrit numerals. The Arabs, who adopted them from the Hindus, called them Indian figures; in Europe, where they were introduced by the Arabs, they were called Arabic figures.

Thus १ stands for ए of एकः *ekah*, one.
 २ stands for द्व of द्वौ *dvau*, two.
 ३ stands for त्र of त्रयः *trayah*, three.
 ४ stands for च of चत्वारः *catvārah*, four.
 ५ stands for प of पञ्च *pañca*, five.

The similarity becomes more evident by comparing the letters and numerals as used in ancient inscriptions. See Woepcke, *Mémoire sur la Propagation des Chiffres Indiens*, in *Journal Asiatique*, vi série, tome i; Prinsep's *Indian Antiquities by Thomas*, vol. ii. p. 70; *Chips from a German Workshop*, vol. ii. p. 289.

Pronunciation.

§ 22. The Sanskrit letters should be pronounced in accordance with the transcription given page 4. The following rules, however, are to be observed:

1. The vowels should be pronounced like the vowels in Italian. The short अ *a*, however, has rather the sound of the English *a* in 'America.'
2. The aspiration of the consonants should be heard distinctly. Thus ख *kh* is said, by English scholars who have learnt Sanskrit in India, to sound almost like *kh* in 'inkhorn;' थ *th* like *th* in 'pothouse;' फ *ph* like *ph* in 'topheavy;' घ *gh* like *gh* in 'loghouse;' ध *dh* like *dh* in 'madhouse;' भ *bh* like *bh* in 'Hobhouse.' This, no doubt, is a somewhat exaggerated description, but it is well in learning Sanskrit to distinguish from the first the aspirated from the unaspirated letters by pronouncing the former with an unmistakable emphasis.
3. The guttural ङ *ṅ* has the sound of *ng* in 'king.'
4. The palatal letters च *c* and ज *j* have the sound of *ch* in 'church' and of *j* in 'join.'
5. The lingual letters are said to be pronounced by bringing the lower surface of the tongue against the roof of the palate. As a matter of fact the ordinary pronunciation of *t*, *d*, *n* in English is what Hindus would call lingual, and it is essential to distinguish the Sanskrit dentals by bringing the tip of the tongue against the very edge of the upper front-teeth. In transcribing English words the natives naturally repre-

sent the English dentals by their linguals, not by their own dentals; e.g. ड़िरेक्टर् *Direktar*, गवर्णमेण्ट् *Gavarṇment*, &c.¹²

6. The visarga, jihvāmūliya and upadhmānīya are not now articulated audibly.
7. The dental स *s* sounds like *s* in 'sin,' the lingual ष *ṣ* like *sh* in 'shun,' the palatal श *ś* like *ss* in 'session.'

The real anusvāra is sounded as a very slight nasal, like *n* in French 'bon.' If the dot is used as a graphic sign in place of the other five nasals it must, of course, be pronounced like the nasal which it represents.¹³

CHAPTER II.

RULES OF SANDHI OR THE COMBINATION OF LETTERS.

§ 1. In Sanskrit every sentence is considered as one unbroken chain of syllables. Except where there is a stop, which we should mark by interpunction, the final letters of each word are made to coalesce with the initial letters of the following word. This coalescence of final and initial letters, (of vowels with vowels, of consonants with consonants, and of consonants with vowels,) is called *Sandhi*.

As certain letters in Sanskrit are incompatible with each other, i.e. cannot be pronounced one immediately after the other, they have to be modified or assimilated in order to facilitate their pronunciation. The rules, according to which either one or both letters are thus modified, are called *the rules of Sandhi*.

As according to a general rule the words in a sentence must thus be glued together, the mere absence of Sandhi is in many cases sufficient to mark the stops which we have to mark in English by interpunction. Ex. अस्त्वग्निमाहात्म्यं इन्द्रस्तु देवानां महत्तमः *astvagnimāhātmyaṃ, indrastu devānāṃ mahattamaḥ*, Let there be the greatness of Agni; nevertheless Indra is the greatest of the gods.

¹² Bühler, *Madras Literary Journal*, February, 1864. Rajendralal Mitra, *On the Origin of the Hindvī Language, Journal of the Asiatic Society*, Bengal, 1864, p. 509.

¹³ According to Sanskrit grammarians the real anusvāra is pronounced in the nose only, the five nasals by their respective organs and the nose. Siddh.-Kaum. to Pāṇini 1.1.9. अमङ्गनानां नासिका च (चकारेण खखवर्गोच्चारानुकूलं ताल्वादि समुच्चीयते) ॥ The real anusvāra is therefore *nāsikya*, nasal; the five nasals are *anunāsika*, nasalized, i.e. pronounced by their own organ of speech, and uttered through the nose.

Distinction between External and Internal Sandhi.

§ 2. It is essential, in order to avoid confusion, to distinguish between the rules of Sandhi which determine the changes of final and initial letters of words (*padas*), and between those other rules of Sandhi which apply to the final letters of verbal roots (*dhātu*) and nominal bases (*prātipadika*) when followed by certain terminations or suffixes. Though both are based on the same phonetic principles and are sometimes identical, their application is different. For shortness' sake it will be best to apply the name of *External Sandhi* or *Pada Sandhi* to the changes which take place at the meeting of final and initial letters of words, and that of *Internal Sandhi* to the changes produced by the meeting of radical and formative elements.

The rules which apply to final and initial letters of words (*padas*) apply, with few exceptions, to the final and initial letters of the component parts of compounds, and likewise to the final letters of nominal bases (*prātipadika*) when followed by the so-called *Pada*-terminations (भ्यां *bhyām*, भिः *bhiḥ*, भ्यः *bhyaḥ*, सु *su*), or by secondary (*taddhita*) suffixes beginning with any consonants except य् *y*.

The changes produced by the contact of incompatible letters in the body of a word should properly be treated under the heads of declension, conjugation, and derivation. In many cases it is far easier to remember the words ready-made from the dictionary, or the grammatical paradigms from the grammar, than to acquire the complicated rules with their numerous exceptions which are generally detailed in Sanskrit grammars under the head of Sandhi. It is easier to learn that the participle passive of लिह् *lih*, to lick, is लीढः *liḍhaḥ*, than to remember the rules according to which ह् + त् *h + t* are changed into ढ् + त् *ḍh + t*, ड् + ध् *ḍ + dh*, and ड् + ढ् *ḍ + ḍh*; ड् *ḍ* is dropt and the vowel lengthened; while in परिवृत् + तः *parivṛt + taḥ*, the vowel, under the same circumstances, remains short: *parivṛt + taḥ* = *parivṛd + taḥ*, *parivṛd + dhah* = *parivṛd + dhah* = *parivṛdhaḥ*. In Greek and Latin no rules are given with regard to changes of this kind. If they are to be given at all in Sanskrit grammars, they should, to avoid confusion, be kept perfectly distinct from the rules affecting the final and initial letters of words as brought together in one and the same sentence.

Classification of Vowels.

§ 3. Vowels are divided into short (*hrasva*), long (*dīrgha*), and protracted (*pluta*) vowels. Short vowels have one measure (*mātrā*), long vowels two, protracted vowels three (Pāṇini, 1.2.27). A consonant is said to last half the time of a short vowel.

1. Short vowels: अ *a*, इ *i*, उ *u*, ऋ *r*, ॠ *l*.
2. Long vowels: आ *ā*, ई *ī*, ऊ *ū*, ॠ *r*, ए *e*, ऐ *ai*, ओ *o*, औ *au*.
3. Protracted vowels are indicated by the figure ३ 3; अ३ *a3*, आ३ *ā3*, इ३ *i3*, ई३ *ī3*, ए३ *e3*, औ३ *au3*. Sometimes we find अ३इ *a3i*, instead of ए३ *e3*; or आ३उ *ā3u*, instead of औ३ *au3*.

§ 4. Vowels are likewise divided into

1. Monophthongs (*samānākṣara*): अ *a*, आ *ā*, इ *i*, ई *ī*, उ *u*, ऊ *ū*, ऋ *r*, ॠ *l*.
2. Diphthongs (*sandhyakṣara*): ए *e*, ऐ *ai*, ओ *o*, औ *au*.

§ 5. All vowels are liable to be nasalized, or to become *anunāsika*: X X, X X.

§ 6. Vowels are again divided into light (*laghu*) and heavy (*guru*). This division is important for metrical purposes.

1. Light vowels are अ *a*, इ *i*, उ *u*, ऋ *r*, ॠ *l*, if not followed by a double consonant.
2. Heavy vowels are ए *e*, ऐ *ai*, ओ *o*, औ *au*, and any short vowel, if followed by more than one consonant.

§ 7. Vowels are, lastly, divided according to accent, into *acute* (*udātta*), *grave* (*anudātta*), and *circumflexed* (*svarita*). The acute vowels are pronounced with a raised tone, the grave vowels with a low, the circumflexed with an even tone (Pāṇini, 1.2.29–32). Accents are marked in Vedic literature only.

Guṇa and Vṛddhi.

§ 8. Guṇa is the strengthening of इ *i*, ई *ī*, उ *u*, ऊ *ū*, ऋ *r*, ॠ *l*, by means of a preceding अ *a*, which raises इ *i* and ई *ī* to ए *e*, उ *u* and ऊ *ū* to ओ *o*, ऋ *r* and ॠ *l* to अर् *ar*, ॠ *l* to अल् *al* (Pāṇini, 1.1.1).

By a repetition of the same process the vṛddhi (increase) vowels are formed, viz. ऐ *ai* instead of ए *e*, औ *au* instead of ओ *o*, आर् *ār* instead of अर् *ar*, and आल् *āl* instead of अल् *al* (Pāṇini, 1.1.1).

Vowels are thus divided again into:

- | | | | | | |
|-------------------|---------------------------|-----------------------------------|-----------------------------------|---------------------------|-----------------|
| 1. Simple vowels: | अ <i>a</i> , आ <i>ā</i> , | इ <i>i</i> , ई <i>ī</i> , | उ <i>u</i> , ऊ <i>ū</i> , | ऋ <i>r</i> , ॠ <i>l</i> , | ॠ <i>l</i> . |
| 2. Guṇa vowels: | — | ए <i>e</i> (<i>a + i</i>), | ओ <i>o</i> (<i>a + u</i>), | अर् <i>ar</i> , | अल्. |
| 3. Vṛddhi vowels: | आ <i>ā</i> | ऐ <i>ai</i> (<i>a + a + i</i>), | औ <i>au</i> (<i>a + a + u</i>), | आर् <i>ār</i> , | आल् <i>āl</i> . |

§ 9. अ *a* and आ *ā* do not take guṇa, or, as other grammarians say, remain unchanged after taking guṇa. Thus in the first person singular of the reduplicated perfect, which requires guṇa or vṛddhi, हन् *han* forms with guṇa जघन *jaghana*, or with vṛddhi जघान *jaghāna*, I have killed.

Combination of Vowels at the end and beginning of words.

§ 10. As a general rule, Sanskrit allows of no hiatus (*vivṛtti*) in a sentence. If a word ends in a vowel, and the next word begins with a vowel, certain modifications take place in order to remove the hiatus.

§ 11. For the purpose of explaining the combination of vowels, they may be divided into two classes:

1. Those which are liable to be changed into semivowels, इ *i*, ई *ī*, उ *u*, ऊ *ū*, ऋ *r*, ॠ *r*; also the diphthongs, ए *e*, ऐ *ai*, ओ *o*, औ *au*.
2. Those which are not, अ *a*, आ *ā*.

Calling the former liquid,¹⁴ the latter hard vowels, we may say: If the same vowel (long or short) occurs at the end and beginning of words, the result is the long vowel (Pāṇini, 6.1.101). Thus

¹⁴ The *Prātiśākhya* calls them *nāmin*, for a different reason; see *Rig-veda-prātiśākhya*, ed. M. M., p. xxiii.