

world would have been saved from many inundations of theological lore. Had these writers put their works to the torture and removed the error, the church would have been saved from many delusions. We hazard nothing in saying that, to a theologian, the kind of mental discipline afforded by the study of the natural sciences, is eminently important. He who can bring to the study a mind thus trained, even if it may lack brilliancy, will accomplish much.

The late Dr. Chalmers laid the foundation for a fame which has ranked him among the noblest intellects of earth, by bringing to the study of the Scriptures a mind well disciplined by reading the book of nature. The germ of his astronomical discourses was the germ of his fame, a fame which will live as long as science and Christianity are known. His preaching became the power of God to the salvation of sinners, when his well stored mind laid all its acquisitions at the feet of the Saviour, and his soul melted in love to him who blends in one glorious personage the Creator and the Crucified.

ARTICLE IV.

THE SANSKRIT LANGUAGE.

On the Grammatical Structure of the Sanskrit.

Translated and somewhat abridged from v. Bohlen's "Das Alte Indien." By W. D. Whitney, Northampton, Mass.

THE language in which are written the classic works of the ancient Hindoos bears the name *Sanskrita*, literally *composite, concrete* (from *sam* together, and *kri* to make), but in its common acceptation signifying *perfect*, as distinguished from the popular dialects, which have grown out of it. In some districts of India it has entirely passed out of knowledge, so that in the Deccan, for instance, it is enough to say of any illegible inscription, "it is Sanskrit," to put a stop to all attempts at deciphering it. It may be regarded as extinct throughout the whole country ever since the times of the Mohammedans, although still learned by the Brahmins, in order to the understanding of the sacred books, and even occasionally made use of in learned composition. And had nothing come down to us from Ancient India saving the grammar of their admirable language, and of this only the verb,

with its regularity of structure, its copiousness in respect to moods and tenses, the multitude of meanings it can convey with the help of a few prefixes, and its capability of being stripped of all adjuncts down to the naked root, we should still have been in a condition to judge with considerable accuracy of the spirit of the old Hindoo people. But apart from its value as an index of the intellectual character of those who spoke it, and as affording means for tracing historically the development of that character, the circumstance which gives to the study of the Sanskrit in our eyes its crowning importance is this : it is, to a remarkable degree, the most perfect and complete of a rich family of languages, embracing the Greek, Latin, Gothic, Lithuanic, and Persian. Analytical investigations by Bopp, Humboldt, and others, have led to the following conclusions : the Sanskrit must have already attained its philosophic precision and elegance when the Grecian, German, and Italian colonies were sent forth, for it exhibits regular forms analogous to most of the irregular and obsolete cases and inflections of the other languages named ; but, on the other hand, as the latter have retained much that has become obsolete in the Sanskrit, we should not be justified in considering this the mother of the family. In order that the proof of these propositions may be placed within the reach of those who are not versed in philological analysis, I will endeavor to present a brief sketch of the structure of the Sanskrit, so far as it is possible to do so without offering a great array of examples. But first of all, to lay firm ground for further progress, we must consider the written character, and the classification of the sounds. Of hieroglyphics we find no trace in India ; the oldest inscriptions are written with a character which resembles more or less closely that of the manuscripts, or, even when illegible, gives evidence of its affinity therewith, and in its roughest forms is plainly an immediate invention, and not derived through the medium of any picture-writing. The antiquity of manuscripts will give us as little help in ascertaining the time of the origin of writing among the Hindoos as among the Greeks : the oldest we have are of but a little later date than the codices of Homer. With the oldest deciphered inscriptions, also, of the fifth century, we lose all evidence of the earlier existence of an alphabetic character derivable from monuments, and are obliged to betake ourselves to internal probabilities and the testimony of foreigners. The perishable nature of the ordinary writing material, cotton paper, rendered frequent transcription necessary ; and not only the immense body of the literature itself, but more particularly the great variety of popular running-hands, which may all be traced back to the original alphabet, prove that in no country was there ever more written than in India.

It is impossible to fix historically the date of the invention of cotton paper ; this only is well known, that as early as A. D. 650 the Arabians found a fine article of it in Samarcand, and Ali Ibn Mohammed, who gives us the information, adds that it was then in use only there and in China. Earlier than this was the use of silk paper, which the Chinese claim to have invented about 108 B. C. ; those versed in Chinese antiquities, however, conjecture that the art of writing with paper and ink was introduced into China from India in the train of the religion of Fo. But the most ancient mode is undoubtedly that still practised in Malabar, of scratching with an iron point on green palm leaves ; the method always employed in the native drama, when the scene is laid in the open air. The Sanscrit word *likh*, to paint, made use of in the epics to express writing, supposes a liquid material ; in all the ancient works, reading and writing, when reference is had to the Vedas, are taken for granted as universally known ; the Bhagavadgita mentions the first letter in the alphabet ; and accordingly it is not true of India as of other countries, that the art of writing was born and grew up with the prose literature. It must, moreover, have been pretty generally familiar at the time of the Macedonians ; else those guide-boards by the road-sides, marked with names and distances, were wholly useless. Finally, we conclude that the written character, though unknown at the time of separation of the kindred tribes, (for otherwise the Greeks would hardly have adopted the imperfect Phœnician alphabet, which so fettered their language,) must yet, at a comparatively early period, have allied itself with the Sanskrit ; since the latter, in its euphonic changes, is so often governed by it : and above all, that it was not introduced from abroad, but must be deemed independent Indian origin ; that learned and accurate palaeographer, Kopp, having failed to establish any affinity between it and the Phœnician alphabet.

The Sanskrit alphabet, whose invention, as an act of immediate inspiration, the Indians attribute to Brahma, is called Devanâgarî, or writing of the gods ; and, like all its derivatives, reads from left to right. It is arranged according to the organs of utterance, and is so complete, that any language may be spelt with its forty-nine signs. Among its vowels, numbering with the diphthongs fourteen, we miss only short o and short e ; that is to say, these sounds have no peculiar representatives in the written language ; both, however, are included in the short a, and may often be traced out or guessed at by the aid of the kindred tongues ; e. g. *ashin*, a bone, ὀστέον ; *aris*, enemy, ἔρις. But it is unsafe attempting to fix, by such means, the pronunciation of a dead language ; and the sound of a, in the Sanskrit, may have been

pretty uniform. Peculiar to the Devanāgarī, on the other hand, are the vowel-like letters *ri* and *lri*; the latter, pronounced somewhat like the Polish *l*, is introduced merely for the sake of uniformity, in order that the semi-vowels, *ya*, *ra*, *la*, *va*, which are subject to conversion into vowels, may have each its corresponding element, *i*, *ri*, *lri*, *u*. The *ri*, however, or vowel *r*, is essential to the Sanskrit, though appearing in the sister languages as a consonant, in its Guna-form, as the Indian would say; e. g. *kri* or *kr*, *creare*; *vrit*, *vertere*; *stri*, *sternere*; *trip*, *εἰρησθῆναι*. Moreover, there is a separate sign for the lengthened sound of each vowel, and we have *a* and *â*, *i* and *î*, *u* and *û*, *ri* and *rî*, *lri* and *lrî*. *A* unites with *i*, whether either be long or short, to form the diphthong *e* (*e* as in *there*); *a* and *e* become *ai* (*our long i*), which is, as it were, a triphthong. In like manner comes *o* from *a* and *u*, and *au* (*ou* in *our*) from *a* and *o*. It is not for the sake of euphony only that this union takes place, when, either in composition, or to avoid the hiatus, the final vowel of a word is blended with the initial of the next following (e. g. *hitopadesa* for *hita-upadesa*, *nai va* for *na eva*); a similar change takes place, also, in the formation of derivatives, by the addition of an *a* to the primitive vowel; for instance, *i* is strengthened into *e*, *u* into *σ*, which first increment is called by the grammarians Guna, coloring; again, *s* becomes *ai*; *σ*, *au*; this is termed *Wriddhi*, growth. By attention to these changes, we are always enabled to recognize the derivative, and refer it back to its primitive. So *prauda*, *proud*, leads us to the root, *prud*, to be proud; *yauvana*, *youth*, to *yuvan*, a young man. Applying the same process to the cognate languages, we have from *cupere*, first *copa*, then *cauponari*; so likewise are the Norse *raudr*, *red*, or the Lithuanian *raudonas*, strengthened forms, the Sanskrit *rudhiras*, and *ῥουθρός*, being simpler. Every consonant of the Devanāgarī is supposed to include and be followed by a short *a*, as its soul or particle (*mâtrâ*), unless its place is supplied by some other vowel expressed; just as, according to some authorities, in the old Roman, *krus* was written for *karus*, *kra* for *cera*. This *a* was originally signified by the perpendicular line in each consonant, which is therefore omitted when the *a* is silent, or doubled when it is lengthened. The exactness and consistency of this mode of vocalization, show that it could have been but once invented; its peculiarities are lost in the rounded current-hands, and are wanting even in a number of the Devanāgarī letters themselves, which may be later additions to the alphabet, being, as they are, merely modifications of other sounds. A horizontal line above the letters unites them calligraphically into words, but it is an unessential part of the character, and rarely found in ancient inscriptions.

After the vowels and diphthongs come the consonants, arranged in five classes, and in such an order that, the classes being written above one another, the first perpendicular line will include the smooth mutes, the second their aspirates, the third the middle mutes, the fourth their aspirates, and the fifth the nasals. These latter are not in other languages, as here, denoted by separate signs, although the guttural *n* in *angle*, for instance, is obviously quite distinct from the dental in *enter*. A point written above the calligraphic line, termed *anusvara*, may stand instead of any one of the nasals. The five classes are as follows. First, the Gutturals; *ka*, *kha*, *ga*, *gha*, *nga*. Second, the Palatals; *cha* (*ch* in church), *chha*, *ja* (*j* in James), *jha*, *na*. This class is of special importance with respect to comparative investigations. *Cha*, even in Sanskrit, is convertible into *ka*; from *vach*, to speak, comes *vâk*, a word, *vox*; and in Latin *qu* often supplies its place: *pancha*, five, *quinque*; *chatur*, four, *quatuor*. In the classic languages, *g* stands for *ja*, and in all probability originally had the same pronunciation, as it still has in their dialects; *râj*, to rule, *rajan*, king, *regere*, *rex* (for *regs*); Italian, *il rege*; *jânu*, knee, *γόνυ*, *genu*; French, *genou*; etc. Third, the Linguals or Cerebrals, called in Sanskrit, head-tones; *ta*, *tha*, *da* *dha*, *na*; peculiar to this language, and uttered back in the throat. These exhibit a tendency to pass into *r*. Fourth, the Dentals, *ta*, *tha*, *da* *dha*, *na*. Fifth, the Labials, *pa*, *pha*, *ba*, *bha*, *ma*. Next follow the semivowels, *ya*, *ra*, *la*, *va*; then the sibilants, *sa* palatal, *sa* dental, and *sha*; and last of all, the aspirate, *ha*. The first *sa* varies to *k*, even in the Sanskrit, and yet more readily in the cognate languages; *dis*, to point, *indicare*, *δείκνυμι*; *das*, to bite, *δάκω*; *dris*, to see, *δέρκεσθαι*; *pasu*, beast (from *pas*, to tie), *pecus*; *satam*, hundred, *centum*; *dasa*, ten, *decem*, *δέκα*; *svan*, dog, *κύνων*. The *f* is wanting among the Sanskrit elements, and the aspirated *bha*, performs its office; *as*, *bhu*, to be, *γίω*, *suo*; *bhri*, to bear, *φέρω*. This system of arrangement is of high antiquity, for we find it observed in the earliest lists of roots, and it is followed by all the vocabularies, as well as by the derived dialects. The extended use of the Devanâgarî agrees precisely in point of time with the spread of Buddhism, which during the fifth century before Christ and later, gradually made its way out of India over all the islands and through China, Japan, and northern Tibet. It has been preserved nearly pure in the written character of Cashmere, and of a northern dialect in India; is but little corrupted among the Hindostanees about Agra and Delhi, as also among the Sikhs of Punjab and the Mahrattas. The alphabet of the Bengalee dialect along the Ganges, likewise used by the inhabitants of Assam on the Brahmaputra, is

sharper and slighter. As we go southward, we find a tendency to a rounded hand more and more prevailing. Besides the systems still in use, there are many which may be regarded as dead stereotypes; as, among others, the triple character of the Pali, in which are written the sacred books of the Buddhists about Ava and Pegu.

In order now to arrive at some degree of acquaintance with the internal structure and peculiarities of the Sanskrit, we must go back to the so-called *roots* of the language. The Indian, naturally inclined to speculate upon every subject, has ever made his own language a special study, because it was the holy tongue in which Brahma himself revealed the sacred writings. He has, in truth, made himself thoroughly master of the process of its development, as nothing better shows than that profound and remarkable step, his attempt to strip the verbs of their subjectivity, in order to arrive at the naked elements of the language; and thus, what so late as Schlozer was declared to be a useless folly, the endeavor, namely, to trace out the original beginnings of a language, he has long since effected with regard to the Sanskrit. For next after the interjection, that mere animal utterance, which seeks to express feeling only by sounds of a higher or lower key, these stems (*dhâtavas*) plainly constitute the first attempts to clothe with form the fleeting breath, when pantomime was found no longer sufficient. If the vowels may properly be styled the soul of language, the consonants supply its peculiar physiognomy; they are the characteristic part, and they are more or less imitations of natural sounds, in proportion as a sensual observation of Nature, or a cultivated reason, have borne the more prominent part in the formation of a language. Among the Sanskrit elements are to be found very few such imitations; instances are, *tup*, to strike, *ṭṭṭṭṭṭ*; *pat*, to fall; expressions for speaking, knowing, teaching, meditating, are comparatively very numerous; and rarest of all those for struggling and fighting; facts which bear strong testimony to the early earnest and peaceful character of the Indian; indeed, as Humboldt remarks, many and varied evidences of his propensity to abstraction and pious seclusion are traceable in his language. The roots being formed by the addition of consonants to a simple breathing, they must of course be all monosyllabic, whether containing one consonant or more; as, *mâ*, to measure; *smi*, to smile; *skand*, to ascend. Simple vowel roots, Grimm disallows, and in this the acute philologist is fully borne out by the Sanskrit, which in such apparent cases shows that it has itself lost a consonant, or that the other languages have corrupted the stems; as the Greek *ἀῖω*, comes from the Sanskrit *av* and *va*, to blow. As to the signification of the roots, we gather from their development that they form a descriptive

part of speech, intermediate between an interjection and an adjective, and therefore the verbal stem appears generally in its purest form in the imperative, or as the final member of an adjective compound; e. g. dharmavid, skilled in law; vid being the root, meaning to *understand*; compare armiger, frugifer, etc. So also is the Latin termination *brum* to be referred to bhri, to bear; as, candelabrum, light-bearer. The Indian grammarians regard their verbal-stems as germs, or material (prākṛiti), which become verbs only when invested with intellectual predicaments, when the relation to the attribute and the existence of the subject in respect to quantity and quality are expressed; when, in short, a complete sentence is formed: for instance, *tupāmi*, I strike, properly contains the predicate *tup*, the copula *as* (to be), and the subject *mi*; *striking am I*. They therefore define the roots by abstract ideas, as speech and motion, which they regard as original categories; and moreover express the definition in a case which has the least direct connection with an object, namely, the locative; e. g. *î*, to go, is explained by *kāuti-gati-vyâpti-kshepa-prajana-khadaneshu*, in *loving, going, obtaining, throwing, begetting, biting*, a single compound, whose last member bears the case-ending. There are about five hundred roots of motion; next in number are those of sound; but not until they become organized and inflected verbs, do they come within the province of general usage, which limits more narrowly the nature of the motion or sound; e. g. *ling*, to move, inflected or united with a prefix, means to embrace, *umschillingen*; *ag*, to set in motion, *agere*, applies particularly to fire; hence *agnis*, fire, *ignis*: *valg*, to move, is as a verb modified to express wry or crooked motion; compare the Latin *valgus*, the Greek *φελγῶ*, *flecto*, the English to walk; the latter, however, has lost the accessory idea. So *tus*, to sound, in common use, becomes to cough, *tussire*; *vrih*, to sound, properly refers to the cry of the elephant; and thus all these lighter shades of meaning lie dormant, as it were, in the roots, and are waked into life by being brought forth into the actual language. It is easy to see how much this analysis of the verbs must facilitate our researches into the inmost structure of the language, and a similar treatment of the classic tongues were a thing much to be desired, in order that by closely comparing the roots of kindred dialects, we might be enabled to trace out their historical development. The Latin and Lithuanian seem more to resemble the Sanskrit in keeping fast hold of their verbal stems than does the Greek, because the noble tongue of the Hellenes, earlier left to itself, concealed its Asiatic physiognomy under the veil of Grecian individuality; but even here, with the aid of the Sanskrit, we find it possible to trace and separate a great number of pure roots.

Almost every native Indian grammar contains, in the form of an appendix, a catalogue of roots (dhâtupâta), and of these, two in particular are highly esteemed for completeness; that of Kasinatha, which has been edited by Wilkins; and that of Vopadeva (Kavikal-padruma), which Carey embodied in his Grammar. Rosen's learned and accurate work, with examples from the ancient writings, is made up from them both. The number of verbal-stems is 2352; to these are to be added the so-called Sautra-roots, which are assumed by the grammatical rules (sûtrâni), in order to furnish a derivation for the few nouns which cannot be referred back to the others. This number might be reduced one half, if roots of similar signification, but differently conjugated, were to be reduced to the same original. The common usage of the language seems to content itself with a much less number; there are more than 1800 for which Rosen fails to find examples, and therefore in the earlier productions of Sanskrit literature, only five hundred appear to be commonly used; these, however, with the aid of prefixes, suffice to express an inexhaustible variety of meanings. These prefixes, eighteen in number, are all of them related to the prepositions of the allied languages, as for instance pra (pro), pari (περί), upa (ὑπό), etc.; they are mostly inseparable in the Sanskrit, and are only elevated to the rank of distinct prepositions in the kindred dialects, as the case-endings go out of use; so the Slavonian needs no *with* or *by* to express the instrument, for he has his instrumental case. Examples of the manner in which the prefixes modify the verbs are: pat, to fall; utpat, to fly up, πέτεσθαι; âpat, to fall headlong; lambh, to obtain, upalambh, to understand, to take upon one's self, as it were, ὑπολαμβάνειν; svas, to breathe, âsvas, to console, to give free breath; nirsvas, to sigh, expire, visvas, to be quiet, etc. Rosen's investigations show that no root receives four prefixes; instances of the addition of two and three are, however, frequent.

If we now take a general view of the verbal-stems of the Sanskrit, we shall conclude that they were reduced at a time when the language was still fresh and vigorous, but after it had begun in some measure to extend and modify itself with respect to these its fundamental elements. It is, perhaps, still possible to follow these efforts of the language toward a more copious development, for we can detect among the roots certain classes of modifying changes which could hardly have been suddenly effected. The first attempt was to acquire a new supply of roots, by rejecting a final consonant, and lengthening the radical vowel; this change is evidently of very ancient date, for the cognate languages often divide the double roots among them, and now find their point of union in the Sanskrit; examples are, gam

and gâ, to go; bhas and bhâ, to shine, compare φάσκαω and φάω; sthal and sthâ, to stand, to put, compare στελλειν and stare; ir and î, to go, compare ἱέναι and ir-e; dru, drav, and drâ, to run; all still in use in the Sanskrit; the latter corresponds to δράω; dhri, dhar, and dhâ, to set; compare τίθημι (dadhâmi); from dhar comes dhârâ, earth, while terra cannot be traced to a Latin root; pal and pâ, to rule, to spread abroad; compare pellere; the former appears again in the Causal, and in pallis, seat of government, as appended to the name of a city; this throws light on the hitherto unexplained derivation of πόλις. Again, the language sought to multiply its roots by increasing their vowels with Wriddhi; as, gî and gai, to sing; dhî and dhyai, to meditate, etc.; or by changing them into the corresponding semi-vowels, in which case the other languages of the family have often retained the purer form; as, sud, sved, to sweat, sudare; sun, svan, to sound, sonare; sup, svap, to sleep, sopire. Still further, we find a tendency in the roots to become dissyllabic; thirteen such exceptions to the general rule are enumerated, and the mode of their origin illustrates the efforts of the language to enrich itself. Its further development would assuredly have afforded us more of such roots; they would in part form denominatives, (as from duskha, pain, has come a verb dukh, to be in pain, and as katha, to relate, is derived from the interrogative katham, how? and so properly means, to make known the grounds of a matter; a derivation hardly recognizable in inquit and the English quoth,) and in part would arise from the blending of prefixes with the root, as has been the case with the few dissyllabic roots. The last step was to relinquish the radical vowel, of which the Sanskrit presents us comparatively few instances. It never allows of such changes as, for instance, in brach, brechen, brich, gebrochen, bruch, but holds fast to its vowel at all events, and at the most only allows of a strengthening by Guna and Wriddhi. Yet the interchange of â and î is frequent and of ancient date; e. g. pâ, piv, and pî, to drink, which explains the common origin of πόω bibere, and πίνω; again, âp and îp, to obtain, ad-ip-isci; with the prefix abhi it means, to hope, op-tare; with pari, to be handy, ap-tum esse.

Before leaving this part of my subject, which is evidently of the highest importance to the thorough investigation of the classic languages, and, as relating to the very ground work of the Sanskrit, seems to require a degree of detail in its treatment, I must make reference to those stems which, in some of their inflected forms, introduced a nasal, because they furnish a common origin and point of union to the corresponding Latin and Greek verbs; as lih, and linh, to lick, λείχειν and lingere; chhid and chhind, to split, σχίζειν and

scindere; ud and und, to flow, *ῥδωρ* and unda; labh and lambh, to attain, *λάβω* and *λαμβάνω*; yuj and yunj, to unite (yuktas), jungere and jugum; pij and pinj, to paint (piktas), pingere and pictus; and sak and sank, to be holy, which explains sacer and sanctus, for which Kärcher and others, of late, could find no root. The Latin, in particular, gains from the Sanskrit a fixedness and certainty in its etymology, which none other of the kindred languages furnish it; would we settle the dispute among grammarians, as to whether vehemens should be spelt with an h, the Sanskrit stem vah, to carry, vehere, decides it in the affirmative; would we trace to a root aevum and *αἰών*, we find it in the Sanskrit iv, to endure; dies is in Sanskrit dyâ (like the Cretan *Δία*), and comes from div, to shine; proelium, is pralaya, dissolution, from pra-li; the teeth, *ὀδόντας*, dentes, are adantas, the eaters, from ad, edere; the Sanskrit likewise assures us that the old derivation of vidua from the Etrurian iduare, is incorrect; widow here is vidhava, literally, without a husband (dhavas); and so in innumerable other cases. But it is time to leave these naked stems, the germs of the verbs, and turn our attention to the verbs themselves.

The division into the so-called conjugations is based upon the different methods in which the personal endings are united to the root. There are ten of them, but they differ only in respect to the first four tenses. The first introduces an a between the root and the termination; pach, to cook, pach-a-ti, he cooks; analogous to the Greek *λείπ-ο-μεν*, for *λείπμεν*. Nearly half the whole number of verbs belong to this conjugation. The second is properly the primitive conjugation, for it adds the personal endings immediately to the root; ad-mi, I eat, ved-mas, we know; Doric *ἴδμεσ*; pâ, to rule, pâmi, pâsi, pâti, declined precisely like *φάμι*. The number of roots in this conjugation is some sixty or seventy; in the Greek and Latin it is still less. The third takes a reduplication; dâ, to give, dadâmi, like *δίδωμι*; dhâ, to set, dadhâmi, *τίθημι*. The fourth introduces a y; vas, to clothe, vasy-anti, they clothe; we may find formations analogous to this in the Gothic and Althochdeutsch, though not in the Greek. The fifth adds nu to the root; ap-nu-mas, we obtain; compare *δείκνυμι*. The sixth is much like the first, but is uncommon. The seventh includes the stems already mentioned, which admit a nasal; yuj and yunj, to unite. The eighth adds u; as tan, to stretch, tan-u-mas, we stretch; so *ταρ-ύ-ω*. In the Latin tendere, a d is introduced, as in pro-d-ire, and other words. The Greek sometimes prefixes a d; e. g. Sanskrit raras, dew, ros; Greek, *δρόσος*; Sanskrit asru, tear; Greek, *δάκρυον*, etc. The ninth appends ni; lû, to loosen, lu-ni-mas, we loosen; compare *δάκνω*, *ἰδακνω*. The tenth agrees with the fourth in introducing a y.

Every verb is either transitive (*parasmaipadam*, passing over to another) or reflexive (*âtmanepadam*, returning upon the actor). From the first are formed passives, which have the inflexions of the middle. Likewise are found modifications of the roots into Causals, Frequentatives, and Desideratives; the latter formed by reduplication, as in Greek; e. g. *pîpâs*, to wish to drink; compare *πιπράσκω, διδράσκω*. The moods and tenses are ten, arranged as follows. The Present; the Potential, corresponding to the Subjunctive and Optative; e. g. from *pâ*, to rule, *pâyâm, pâyâs, pâyât*, I might or could rule, etc.; compare *φαίησ, φαίης, φαίη*; *dadyâm*, I would give, *διδόησ*. The Imperative; *pâtu*, let him rule; *dadatu*, let him give; like *φάτω, δίδότηω*. The Imperfect with an augment; *apâm, apâs, apât*, I ruled; *ἔφασ, ἔφασ*; *adadam*, I gave, *εἰδίδων*. The Perfect with a reduplication; *tutopa*, I have struck, *τέτυπα*. Two Futures, one periphrastic, formed with help of the auxiliary, to be; *datâsmi*, for *data-asmi*, a giver am I; the other regular, with the character *s*: *dasyami*, I will give; compare *δωσω*. The Precative; this, with the other tenses following, is of rare occurrence: *dâyasam*, I would give, *δοίησασ*. The Conditional, used in hypothetical propositions; *adâsyat*, if he gives. Lastly, an Aorist, with an augment: *adam*, like *ἔδων*. Each tense has a singular, a dual, and a plural, and in the dual a first person, which all the other members of the family, save the Lithuanian, have lost. It may be remarked, however, that the Indian regards our first person as the third, because the *I* is last taken cognizance of by consciousness; and so their declension runs; he loves, thou lovest, I love. Finally, from every mood and tense are formed participles, entirely analogous to those of the classic languages. I shall not, however, enlarge further upon the nature and inflection of the verb, as what I have already said will suffice to give some idea of its structure, and this part of the subject has been learnedly and thoroughly treated of by Bopp. Neither will it be necessary to take up the declension of the noun, however interesting would be its comparison with that of the kindred tongues, upon which moreover it casts much light. There are eight cases; namely, besides the classic six, an instrumental and a locative. The latter ends in *i*, which, with final *a* of the root, becomes *e*: *deve*, in God. In *domi, ruri*, this character is still perceptible; in *ρομη, Romae*, and the like, it has become confounded with the genitive and dative. Both noun and pronoun have also a complete dual. The Indian grammarians treat the noun as they treat the verb, inasmuch as they assume for it a fundamental form, which only becomes a noun by the addition of case endings; accordingly we find in a vocabulary not *Devas*, God, but *deva*, as the nominative is formed

by affixing an s : not nama, name, but naman, the n, rejected to form the nominative, appearing again in the declension. It is as if the Latin were to give homin, and pulver, as fundamental forms for homo and pulvis. These forms are mostly traceable to the verbal-stems, and are very variously derived from them : by the before-mentioned strengthening of the vowel (Guna and Wriddhi) ; as from yuj, to unite, yoga, union ; or by simply adding a vowel ; as from tal, to count, comes tâla, number ; or by the addition of an infinite number of derivative syllables, suffixes, which give to this language a copiousness such as belongs to no other. I will name here but a few of them : âlas, â, am, form general nouns ; from sthâ, to stand, sthâla, anything that stands, a dish, a stool, etc. ; from pi, to drink, piyâla (name of a tree), compare *πιᾶλη* ; from chand, to shine, candidum esse, chandala, lamp, chandelle : tra indicates the instrument ; pâ, to drink, pâtra, cup ; bhas, to shine, bhâstra, window, old Latin, festra ; vas, to clothe, vastra, clothing, Greek *ἔφαστρις* : tri denotes the actor ; sù, to sew, sutri, the sewer, sutor ; kri, to make, kartri (kartaram), creator ; jan, to beget, janitri, genitrix : ras, â, am, forms adjectives ; madhu, honey, *μέθυ*, meth, mead ; thence madhuras, sweet, ripe, maturus : ikas has the same office, vasantikas, spring-like ; compare *ποιητικός*, etc. : înas, â, am, signifies a relation ; kula, family, kulinas, belonging to a family ; compare leoninus, *ξύλινος* : tas, not inflected, serves to express, adverbially, a relation of place ; devatas, from God ; compare coelitus, divinitus ; tas, â, am, or nas, nâ, nam, form past passive participles ; dâtas, â, am, given, dânam, gift, donum ; the same suffix makes of aris, enemy, arina, discord ; compare *ἐριννύς*.

The final means by which the Sanskrit arrives at great copiousness and elegance is composition. The various methods of composition are reduced by the native grammarians to fixed classes, and of some of these classes only single examples are to be found in the classic languages, so limited in comparison is their capacity for forming them. Most frequent is that class of which a limiting adjective constitutes the first member, a substantive the second, Bahuvrihi, which Schlegel terms qualitative composition ; e. g. mahâtman, of lofty spirit, like magnanimus, *ροδοδάκτυλος*. Another class is Tatpuruṣa, the energetic composition, whose first member is dependent on the second in a way usually expressed by a case ; devadânam, God's gift, for dânam devasya ; Râmâyana, Rama's adventures ; analogous to *πατροκτόνος*, aurifaber. A compound whose first member is a numeral is called Dviga ; panchânâvas, having five ships, like *πενταετής*, septicollis. Another, Avyayibhâva, unites a particle with a substantive ; anugangam, what is along the Ganges, like *παράκοιτις*, confinis. When a

qualifying adjective is connected with a substantive, the compound is termed Karmadhāraya; mahārāja, the great king; *Μεγαλόπολις*; the Latin affords no examples. The last class unites two or more, often many, substantives as asyndeta; e. g. pānipādan, hands and feet; so Aristophanes forms Tisameneophaiuippus, and perhaps the Latin suovetaurilia is of the same character. All these compounds are easily recognized in Sanskrit, because the case ending is only applied to the final member, all the others retaining the ground-form. Some have, however, ignorantly mistaken the euphonic connection of words for composition, and maintained accordingly that there were to be found words of several hundred syllables. For the Sanskrit, having only regard to euphony, adapts the final consonant of one word to the initial of the next, and writes both together; as if the Greek were to write the sentence *τὴν πόλιν καὶ τὴν ἀρχὴν λαμβάνειν, τημπολιγιατην αρχηγλαμβανειν.*

This grammatical sketch may suffice to enable us to judge in some measure of the character of the Sanskrit; that this character is of high antiquity, we are assured not merely by the close and minute analogy discernible between it and the kindred languages, particularly the classical (and that this is not a casual resemblance, the entire diversity of structure of the Semitic family proves), but also by the fact that the productions which Solomon obtained from India are called by names which admit of a regular derivation from roots of this language, and that all geographic appellations, and more especially Indian words, which we receive from Alexander's Greeks, are, however much corrupted they may be, explainable in Sanskrit. One more very remarkable circumstance tends to prove the same thing, and moreover corroborates our theory of the influence of Indian on Egyptian civilization, namely, that the ancient Egyptian names allow of an easy and natural explanation by the Sanskrit, while the etymologies which Jablonsky, Loega, Champollion, and others, have attempted from the Coptish, vary widely from one another, although their signification ought to be but one, and of evident probability. It is, however, but an uncertain matter at best, to guess at the derivation of names whose meaning is not given, and such attempts have ever constituted the most slippery ground of etymology.

The Indians regard Panini as their oldest grammarian; yet he compiled from still earlier works his short aphorisms or sutras, 3996 in number, and the Bhagavadgita makes mention of grammatical forms, thus showing that abstract grammar even then had an existence. Katyayanā wrote a commentary on Panini's sutras; a brother of Vikramaditya also applied himself to their elucidation, and during the

century before Christ the grammatical rules were woven into a remarkable poem, the *Bhāṭikāvya*, by *Bhartrihari*. The professed subject of this poem of twenty cantos is the adventures of Rama, but its main purpose is to furnish practical illustrations of theoretical grammar, to which end it introduces the greatest variety of forms, anomalies, and words rarely used, yet without becoming either obscure or inelegant. *Panini's* dark oracular sayings were likewise interpreted by a great commentary, the *Mahabhashya*, which is regarded as a standard authority, and ascribed to *Patanjali*, the founder of the *Yoga-philosophy*; and this again has found its commentators. The *sutras* themselves, with such explanations as seemed most necessary, have been published at Calcutta. The work of *Ramachandra*, called *Prakriyakaumudi*, is shorter, and on a systematic plan; it, too, has undergone revision, and has appeared at Calcutta. From this was derived a popular grammar, the *Sarasvata*. One of the most recent, but highly esteemed in Bengal, is that of *Vopadevas*, styled *Mugdabodha*; its use, however, is rendered difficult by its new terminology. From these originals were drawn the first Sanskrit grammars of the Europeans; they were arranged in strict accordance with the native method, which was not calculated to facilitate the study of the language. The *Jesuit Hanxleden* had picked up and committed to paper some scanty particulars touching the language; and from his collection the *Carmelite Paulinus*, likewise a German, made up the first Sanskrit grammar, abounding in the grossest errors, which he nevertheless struggled stoutly to defend against the English. These latter are the true founders of Sanskrit grammar, and first among them comes *Colebrooke*, whose work, unfortunately, was not completed and is very rare; *Carey* followed, and *Wilkins*, who excels all others in the simplicity and perspicuity of his arrangement; then *Forster*, who by the completeness of his paradigms did much to aid investigations into the structure of the language; the second part of his grammar, broken off by his death, was to have contained a translation of that of *Vopadevas*, a prosody, and such a treatise on the roots, with full references to the classic authors, as *Rosen* has since furnished us. Finally, *Yates* published a grammar according to the occidental system, which however is not entirely applicable to the Sanskrit, even had *Yates's* work been less inaccurate; its most valuable part is a list of grammatical terms and a brief treatise on prosody. The latter subject is often handled by the Indians in their own writings, and has engaged the attention of some of the greatest poets. After these English, the first German grammar made its appearance, viz. that of *Othmar Frank*; in it some progress was made, particularly with reference to the syntax,

which had before been neglected ; but Wilkins's clear arrangement it abandoned, and its lack of paradigms is an embarrassing defect, which however finds its excuse in the fact that Frank, for want of types, was compelled to make use of lithographs, at considerable trouble and expense. Bopp's complete grammar needs only to be mentioned, as the name of the author is a guarantee of the learning and accuracy of the work ; it has been translated into Latin, and an abridged edition, adapted to general use, has also been published.

The subject of Sanskrit lexicography will demand less of our attention, as we have already mentioned the lists of roots, and as little has here been done by Europeans to help the student. The Indians possess an infinite number of native works in this department, commonly called *koshas*, *thesauri* ; Wilson had met with seventy-six of them ; but they are on the whole of less practical use than the catalogues of roots, for either they contain nothing but obscure glosses, or they are otherwise incomplete, and all, at the fancy of the collector, are homonymically or synonymically arranged in metrical stanzas. The best and most complete dictionary, in the estimation of the Indians, is the *Amarakosha* of *Amarasinha*s. The poems and other works of this author were destroyed during the persecution of the Buddhists, to which sect he belonged ; but his useful and not heretical lexicon was spared, and others labored to perfect and complete it. With its supplements, but without a word of explanatory matter, it was published at Calcutta in 1807 ; but here again came to our aid that same scholar who, with so varied and profound learning, had illustrated the Vedas, the religious ceremonies, the sects of the Buddhists and Jainas, the philosophy, laws, astronomy, mathematics, grammar, and prosody, of India, Henry Thomas Colebrooke, now (1830), in his old age, the worthy President of the Royal Asiatic Society in London. He republished the *Amarakosha* with a translation and explanations, and facilitated its use by a register or concordance as ample as the work itself, for the latter was formed on the plan of arranging together synonymous words, as for instance all forms of expression for God, for heaven, etc., and so, being intended to be learned by heart by the studious Hindoo, was utterly useless to a European. For this reason Paulinus mistook the work for a collection of traditions and liturgies, and Anquetil Dupéron for a treatise on the Phallus (its opening subject being *linga*, gender, of words, that is to say), and both defended their opinion against the English with indecorous vehemence. From these and many other original word-books, eighteen in all, and ten commentaries on the *Amarakosha*, was made up the first and only Sanskrit dictionary (now, unfortunately, out of print), by Wilson, containing about

sixty thousand words, but spite of its copiousness, still far from complete, and an insufficient guide through the Sanskrit literature. A great desideratum, namely, a Glossary to the episodes and extracts which have been published in Germany, has been furnished to beginners by Bopp himself.

ARTICLE V.

SPIRITUALITY OF THE BOOK OF JOB AS EXHIBITED IN A COMMENTARY ON CHAPTER XIV, EXAMINED IN CONNECTION WITH OTHER PASSAGES.

By Taylor Lewis, LL. D., Professor of Greek in the University of the City of New York.
(Concluded from p. 229.)

Verse 13. *כי רתן בשאול תצטנני*. The apparent utter despondency of the preceding expressions is succeeded by the language of agonizing prayer, as though the gloomy conception had suggested and even impelled the cry for deliverance. The idea of annihilation, when dwelt upon, becomes intolerable. The earnestness of the petition shows that the seemingly despairing statement had not been the language of denial, but of a soul seeking in it a confirmation to faith as the only refuge from the intolerable darkness of the opposing view. *Oh that thou wouldst lay me up in Hades.* *צָפַן* means not simply to conceal generally, like *סָתַר* or *הִסְתִּיר*, but also to *lay away in security as a precious deposit*. Compare Ps. 27: 5 *He will hide me in his pavilion, in the secret of his tabernacle*. Hence the righteous are called *צְפוּנֵי יְהוָה*, *clientes Jehovah*, as Gesenius gives it—more properly—*His hidden ones*.

שְׂאוּל. This word alone is sufficient proof that the ancient Hebrews, from the earliest periods of their language, believed in a separate world of souls, a realm of the dead, distinct from the grave, for which they had another distinct and well known term. Although regarded as denoting a subterranean habitation, or as a region to which the grave might seem the local entrance, yet almost every use of the word, from Genesis to Malachi, indicates a conception clearly distinct from that of the mere earthly receptacle of the body. This, indeed, seems conceded both by Herder and Rosenmüller. There can be no better proof than the account of the transaction between Saul and the