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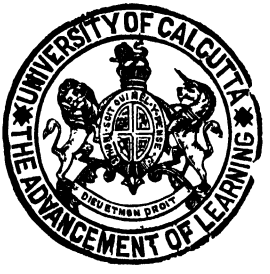
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THE CONCEPTION OF POSITIVE LAW IN ANCIENT INDIA.

"The law, which moved the admiration of Sir William Jones has ceased, in one sense, to be living law, and must be sought at the present day, not in our books of report, but in the texts of our sages, and in the writings of the successive Jurisconsults by whom Hindu Law was gradually moulded into system. Legal antiquities ought to engage our special attention as India offers a rich and varied field for such enquiries. The harvest has long been ripening for the sickle, but as yet, to our reproach, the reapers are few in number, and that wealth of materials which should be our pride is now our disgrace."—(*Sir Rashbehari Ghosh.*)

The Conception of Positive Law in Ancient India

The greatest obstacle to a comparative study of the legal history of ancient India is the influence of the Analytical School of Jurists of which John Austin was the most conspicuous representative. The present generation has consciously or unconsciously imbibed the Austinian doctrine—that Law is a command of a determinate political superior to an inferior enforced by sanction. Every serious student of comparative legal history who studies the evolution of law, from the earliest germination of legal consciousness in ancient societies, realises the various inconsistencies in the doctrine of the great jurist. The main plank in Austin's theory—that sovereignty must reside in a determinate body—is inconsistent with the modern conception of popular sovereignty, ignores the power of public opinion and takes no account of "political sovereignty." His theory has been criticised by a formidable array of distinguished historical jurists like Maine, Clark, Sidgwick, Lowell, and others. As Sir Henry Maine has pointed out, it is a historical fact that sovereignty has often been in the hands of persons not determinate. The Austinian theory of law as a command emanating from a determinate superior—has been criticised on the ground that it ignores the great body of customary law which has never had its origin in the will of a determinate political superior. It errs in treating law as merely command. It identifies sovereignty with legal despotism. It exaggerates the single element of force in law to the neglect of all other historical facts and the forces and influences which contribute to the evolution of legal norms.

But Austin's theory is not wholly defective. The contents of legal systems may be complex and variable, but the idea of law is comparatively simple. Despite all criticism, Austin's main position is unassailable, regarded as a summary of existing facts. What the State wills, that the individual can be compelled to obey by means of coercive sanctions.

When the evolution of Jurisprudence reached a comparatively mature stage in ancient India, we find that amidst the labyrinths of secular and ceremonial rules and rituals positive law gradually differentiated itself from religious and semi-religious injunctions. When the state became the determining factor in the administration of law and justice, positive law secured for itself a definite position and established its sway by virtue of the punishment which the State would inflict in case of its infringement.

In the later Smṛitis the main principles of Austinian theory are noticeable :—

Smṛity-āchāra-vyapetena mārgeṇ-ādharshitaḥ paraiḥ
Āvedayati ched-rājñe vyavahāra padaṁ hi tat.[1]

"If a person, molested by others in the way which contravenes the Smṛiti or established usage, complains to the King, that gives rise to a topic for judicial proceeding." As pointed out by Dr. P. N. Sen,[2] this injunction of Yājñavalkya implies three elements, *viz.* :

1.—transgression of law as laid down in the Smṛiti or established by usage,

2.—injury to some one other than a transgressor, and

3.—intervention of the King in his judicial capacity. The Hindu conception of positive law was not very different from the Austinian theory thereof.

(1) It emphasises that "law was added because of transgressions."

[1] Yājñavalkya, II, 5., Stenzler's Edition (1849), p. 45.

[2] "Hindu Jurisprudence" (Tagore Law Lectures, 1909), p. 29.

(2) It shows that the intervention of the King is called for because and in so far as these transgressions cause injury to people other than the transgressors.

(3) It indicates that whether a transgression be of some rule of action laid down in the Smṛitis or of some established usage, in either case it is the intervention of the King, who is the protector of the people and dispenser of justice, that converts religious or customary law into positive law.

This comparison also shows some points of difference as well. According to Austin, law, in its normal form, consists of commands emanating from the Sovereign in the State and the duty of enforcing the same is a self-imposed duty. But according to the great Hindu jurist Law issues from a source superior to the Sovereign and the duty of enforcing the same is cast upon him from above. Thus the Bṛihadāraṇyaka-Upanishad lays down :—

"Sa n-aiva vyabhavat-tach-chhreyorūpam-atyasṛijat
dharmam
Tad-etat kshatrasya kshatraṁ yad-dharmas-tasmād-
dharmāt-paraṁ n-āsti
Atho abalīyān balīyāṇsam āśaṁsate dharmeṇa yathā
rājñ-aivaṁ
Yo vai sa dharmaḥ satyaṁ vai tat
Tasmāt satyaṁ vadantam-āhur-dharmaṁ vadat-iti
dharmaṁ vā vadantaṁ satyaṁ vadat=īti
Etad-dhy-ev-aitad-ubhayaṁ bhavati.[1]

"He.....created still further the most excellent Law (dharma). Law is the Kshatra (power) of the Kshatra, therefore there is nothing higher than the Law. Thenceforth even a weak man rules a stronger with the help of the Law, as with the help of a King. Thus the Law is what is called the true. And if a man declares what is true, they say he

[1] I, 4, 14; Sacred Books of the Hindus, Vol. XIV, p. 93.

declares the Law, and if he declares the Law, they say he declares what is true. Thus both are the same." [1]

In the Dharma-Sūtras we find that the protection of all created beings as well as the infliction of lawful punishments was the primary duty of a King.[2] Manu went so far as to identify the King with Punishment and laid down that the enforcement of coercive sanctions was a Dharma :—

Sa rājā purusho daṇḍaḥ sa netā śāsitā cha saḥ
Chaturṇām-āśramāṇāṁ cha dharmasya pratibhūḥ smṛitaḥ
Daṇḍaḥ śāsti prajāḥ sarvā daṇḍa ev-ābhirahshati
Daṇḍaḥ supteshu jāgarti daṇḍaṁ dharmaṁ vidur-budhāḥ.[3]

"Punishment is (in reality) the King (and) the male, that the Manager of affairs, that the ruler, and that is called the surety for the four orders' obedience to the law.

"Punishment alone governs all created beings, punishment alone protects them, punishment watches over them while they sleep; the wise declare punishment (to be identical with) the Law." (S. B. E., Vol. XXV, p. 219.)

The author of the Śukranīti like the earlier Smṛiti writers also enjoins the King to administer justice by the infliction of punishment :—

Dushṭa-nigrahaṇaṁ kuryyād-vyavahār-ānudarśanaiḥ.
Sv-ājñayā varttituṁ śaktā sv-ādhīnā cha sadā prajā.[4]

"The King should punish the wicked by administering justice. The subjects who are made to observe his orders are always under his authority." (S. B. H., Vol. XIII, p. 183.)

[1] Sacred Books of the East, Vol. XV, p. 89.

[2] Gautama, X, 7, 8; and XI, 28. Āpastamba, II, 5, 10, 6. Vaśishṭha, XIX, 1. *Cf.* Vishṇu, III, 2.

[3] VII, 17 and 18; *Cf.* VII, 27.

[4] IV, 5, 1.

Thus the idea of sanction[1] as an essential element of law was emphasised by the Hindu Jurists, specially by the author of the later Dharma-Śāstras.

The system of law prevalent in ancient India grew not out of legislation but was based on religion. The old Roman definition which the jurisconsults preserved even up to the time of Justinian—*Jurisprudentia est rerum divinarum atque humanarum notitia*—also points to the same conception. Like other ancient people, the ancient Indians believed that their laws came from the gods. The divine origin is referred to in the above passage of the Bṛihadāraṇyaka. The ideal King in ancient India was also accounted semi-divine.

Arājake hi loke-smin sarvato vidrute bhayāt
Rakshārtham-asya sarvasya rājānam-asṛijat prabhuḥ
Indr-Ānila-Yam-Ārkāṇām-Agneś-cha Varuṇasya cha
Chandra-Vitteśayoś-ch-aiva mātrā nirhṛitya śāśvatiḥ.[2]

"For, when these creatures, being without a King, through fear dispersed in all directions, the Lord created a King for the protection of this whole (creation), taking (for that purpose) eternal particles of Indra, of the Wind, of Yama, of the Sun, of Fire, of Varuṇa, of the Moon and of the Lord of Wealth (Kubera)." (S. B. E., Vol. XXV., p. 216.)

The ancient Cretans attributed their laws, not to Minos, the actual law-giver, but to Jupiter. The Lacedaemonians believed that their legislator was not Lycurgus, but Apollo. The Romans believed that Numa wrote under the inspiration of the celebrated Goddess Egeria. The Etruscans believed that they had received their laws from the god Tages. The

[1] The Hindu Jurists, however, constantly reminded the King to administer justice and to enforce coercive sanctions with great circumspection and with an eye to all the surrounding circumstances, like the status of the criminal, the nature of the crime, etc.; *e.g.*, Gautama, XII, 51; Apastamba, II, 11, 27, 18; Vasistha, XIX, 9; Vishnu, III, 91, Manu, VII, 16, 19, 27-32 and Yājñavalkya, I, CCCIX-CCCXI, CCCLIV.

[2] Manu, VII, 3 and 4.

ancient Indians believed that their law-giver was Varuṇa—the great upholder of order, physical and moral (Rita)—who punished the transgressors of his commands.[1] Thus the Vedic seer sang with characteristic candour :—

Yat kiṁ ch-edaṁ Varuṇa daivye jane-bhidroham
manushyāś-charāmasi
Achittī yat-tava dharmā yuyopima mā nas-tasmād
enaso deva rīrishaḥ.[2]

"Whatever the offence which we men commit, Varuṇa, against divine beings, whatever law of thine we may through ignorance violate, do not thou, divine Varuṇa, punish us on account of that iniquity." (Wilson's translation, Vol IV, p. 181.)

Thus the ancient people thought that Manu, Solon, Lycurgus, Minos or Numa might have reduced the laws of

[1] In the Atharva-Veda illimitable knowledge is also ascribed to this omniscient Varuṇa :—"The great superintendent of them sees, as it were, from close by; whoever thinks to be going on in secret, all this the gods know. Whoso stands, goes about, whoso goes crookedly, whoso goes about hiddenly, who defiantly—what two sitting down together talk, King Varuṇa, as third, knows that. Both this earth is King Varuṇa's, and yonder great sky with distant margins (*ānta*); also, the two oceans are Varuṇa's paunches; also in this petty water is he hidden. Also whoso should creep far off beyond the sky, he should not be released from King Varuṇa; from the sky his spies go forth hither; thousand-eyed, they look over the earth. All this King Varuṇa beholds (vi-caks)—what is hidden between the two firmaments, what beyond; numbered of him are the winkings of people; as a gambler the dice, (so) does he fix these things." (IV, 16, 1 to 5; Whitney's *Atharva-Veda*, pp. 176-177).

"The might and greatness of eternal highest beings, their wisdom and justice, their sublimity and kindliness are united in the chief Âditya, Varuṇa.....They (the hymns of the Veda) picture the god as the all-wise creator, preserver and regent of the worlds, the omniscient protector of the good and avenger of the evil, holy and just, yet full of pity." (Dr. Kaegi's "*The Rigveda*," translated by Dr. Arrowsmith, pp. 61-62). As Dr. Kaegi has pointed out, it was in later times that Varuṇa was lowered to a mere *god of the waters*, which stream down from the sky to the earth.

"Varuṇa opened for thee, O Sindhu, paths to flow" (X, 75, 2.)

"Without trouble Varuna set the waters free" (X, 124. 7.)

(*Vide* Dr. Kaegi's "*Rigveda*," pp. 154-5.)

[2] *Rigveda*, VII, 89, 5. *Vide* Afrecht's Ed., Volume II, p. 67. Varuṇa is frequently spoken of as a king (rājā Varuṇah), as a king of the universe (viśvasya bhuvanasya) and as an universal monarch (samrāt). (Muir's *Sanskrit Texts*, Vol. V, p. 122.)

their times to writing, but they could not have made them. The ancient laws were never invented by any one nor were they created by any legislators in the modern sense of the term. As Coulange has pointed out, there is truth in all these traditions as they indicate that the veritable legislator among the ancients was not a man, but a religious belief which men entertained.[1]

But the facts showing that State Justice was ultimately enforced by means of coercive sanctions, suggestive and interesting as they are, should be regarded in their true historical perspective, as the final outcome of a long unconscious process of evolution, fraught with infinite moment to the human race. For as we go back upon the history of Law, we very soon reach a point at which the theories of Austin are helpless to explain facts. Take for instance, the Smriti—a source of law, an authority which great masses of men feel themselves bound to follow, not because they choose but because they must. But certainly it is not a command of the Sovereign in a State, direct or indirect. The conception of command was not unknown to the ancient Hindus, for example, Jaimini in his Mīmāmsā-Sūtras says

Chodanā lakshaṇo-rtho dharmaḥ[2]

"Dharma or duty is that which, being discernible, is indicated by Vedic injunction." (S. B. H., Vol. X, p. 3.)

This injunction was not the command of a political superior to a political inferior but it emanated from a source which was superior to both and which was equally binding upon all. Dharma was above the king and bound him equally as it did the meanest object. Upon critical examination ancient laws may turn out to be the work of private persons. We find the Code of Hamurabi or the Code of Manu, or other ancient Codes, often purely impersonal documents, compiled

[1] "*The Ancient City*," Bk. III, Ch. XI.

[2] I, II, 2.

no one exactly knows how, or by whom. Yet it is the controlling force which shapes the daily conduct of large masses of men. They do not even consider the propriety of challenging its authority or disregarding its provisions. It is not the work of the State; it may not even be recognised by the State. We may even go further back in the primitive stages of humanity, there may be no State to recognise it. Yet the essential ideas of law, the evident ancestors of our modern juristic notions, are clearly there. Hence, the Austinian conception of law has proved to be historically incorrect, almost useless in considering the ancient systems of Jurisprudence. As Lawrence Lowell has remarked, the definition of Austin is not universally true of law in general.[1] The Neo-Austinian School has also pointed out the great mistake of Austin in regarding law as the command of the Sovereign to the subjects, the theory of Austin thereby giving countenance to the inference that law is the arbitrary creation of the ruler; whereas it is a command not of the ruler but of the State comprising both the ruler and the ruled. The Austinian theory has proved even pernicious as men under the influence of the Analytical School have disputed the existence of Hindu Law except as "a mere phantom of the brain imagined by Sanskritists without Law and lawyers without Sanskrit."

In primitive systems of law where custom had inherent force and could even supersede the edicts of the King or statute law of the realm, the definition of Austin cannot hold good. A custom has its binding effect because the people observe it, not because it has been set by a political superior to a political inferior. Law is not really what the Sovereign enacts but what the subjects observe. The Austinian theory, although more accurate at the present day, is absolutely inaccurate when applied to primitive societies, in which law

[1] "Essays on Government," p. 197.

was mostly based on pre-existent custom.[1] It would serve very little useful purpose in our study of ancient Indian jurisprudence. It is historically untrue, as Sir Henry Sumner Maine has pointed out, in the case of countries where the king is not law-making but merely tax-gathering. Take, for instance, the injunction of avoiding forbidden food which is so constantly repeated by the Hindu jurists :— *e.g.*, "All intoxicating drinks are forbidden." [2] Vasishtha,[3] Vishnu,[4] and Manu [5] also laid down the same injunction in the strictest possible terms and made the breach of it a *mahāpātaka*. We cannot deny the above rule the title of law simply because it deals with the private conduct of a person and not in his dealings with others. If the British Parliament or the French Legislature would pass a bill embodying such provision and interdicting the use of specific articles, Austin would unhesitatingly accept the same as law. But that would be really laying too much stress on the method of law-making in western countries and on the peculiarities of modern jurisprudence. Fustel de Coulange [6] has dwelt upon the omnipotence of the ancient state of Greece and Rome and the far-reaching nature of the legislation which included the minutest details of private life. The Athenian law forbade men to remain single. Sparta punished not only those who remained single but even those who married late. At Athens the States prescribed labour, and at Sparta, idleness. At Locri the law forbade men to drink pure wine, at Rome wine was forbidden to women. It was

[1] Frederick Harrison has pointed out that even in modern states there are some law which can hardly be made to exhibit the characteristics of a command, obligation an sanction; *e.g.*, enabling Statutes, rules of interpretation, and judicial construction an procedure, etc. ("Fortnightly Review," 1878.)

[2] Āpastamba, 1, 5, 17, 21. S. B. E., Vol. II, p. 63.

[3] 1, 19, 20. S. B. E., Vol. XIV, p. 5.

[4] XXXV, 1. S. B. E., Vol. VII, pp. 132-3.

[5] IX, 235. S. B. E., Vol. XXV, p. 383.

[6] "The Ancient City," Bk. III, Ch. XVII.

a common thing for the kind of dress to be invariably fixed by each city; the legislation of Sparta went so far as to regulate the head-dress of women and that of Athens forbade them to take with them on their jonrney more than three dresses. At Rhodes and Byzantium the law forbade men to shave the beard.[1] Thus in the ancient world law was at first a part of religion. The ancient codes were collections of rites, liturgical directions and ceremonial rules joined with legal regulations. The laws regarding property and succession had to be picked out of a mass of rules for burial, worship of the dead and sacrifices. The ancient codes regulated penances, marriage rites and the worship of the dead. In those times law and religion were both blended together.

Some primitive systems of law were administered not only to rational beings but also to animals and inanimate objects. There was a court at Athens which tried animals and inanimate objects guilty of injuring human beings. Plato, the great philosopher, recommended the

[1] The ancient State sometimes commanded a father to whom a deformed son was born to put him to death. This law is found in the ancient codes of Sparta and of Rome as well as in the ideal codes of Aristotle and Plato. On the strength of a passage in the Kāṭhaka-Saṁhitā (XXVII, 9):—"Tasmāt-strīyaṁ jātāṁ parāsyanti na pumāṁsam," Weber, Delbruck and Zimmer asserted that girl infants were exposed by the Vedic Indians (Altindisches Leben, pp. 319-20 and Z.D.M.G., Vol. XLIV, pp. 494-6). It is now clear after Bohtlingk's explanation that Zimmer, Weber, Delbruck and others misunderstood the above passage which merely referred to the laying of the child aside (*legt man bei Seite*) while a boy was lifted up (Z.D.M.G., Vol. XLIV, pp. 494-6). As remarked by Macdonell the passage described the innate sentiment of primitive people looking down with disfavour upon the birth of daughters. (*Vedic Index*, i, p. 395.) The Atharva Veda distinctly invokes the birth of a son and deprecates that of a daughter. "Prajāpati, Anumati-Sinīvālī hath shaped; may he put elsewhere woman-birth; but may he put here a male" (VI, 11, 3; W. A. V., p. 289). It may be noted that Bohtlingk's view referred to above had been accepted later by Roth and Delbruck (Z.D.M.G., XLIV, 496).

We notice the expression of the same sentiment in a later hymn of the Atharva-Veda which prayed for keeping the male child safe in the embryonic stage;

"Pingā, defend thou (the child) in process of birth; let them not make the male female; let not the egg-eaters injure the embryos; drive thou the kimīdins from here." (VIII, 6, 25; W. A. V., p. 498.)

The Aitareya-Brāhmaṇa contains an old verse (VII, 15) which says that a daughter is a misery (kṛipaṇam), while a son is a light in the highest heaven.

trial and punishment of animals and lifeless objects ("Laws," IX, 12). The Exodus says, "If an ox gore a man or a woman that they die; then the ox shall be surely stoned and his flesh shall not be eaten; but the owner of the ox shall be quit" (XXI, 28). Many cruel punishments were also inflicted upon animals in the code of the Zendavesta, and we notice the survival of this primitive custom in mediaeval Europe.[1] Although we do not notice any such absurd instance of the trial and punishment of animals and inanimate objects in the history of Hindu Jurisprudence, it is clear that some primitive systems of law did not satisfy the Austinian test of being confined merely to rational beings. The Hindu Law, of course, made a distinction between sense of responsibility and its absence in the culprit for purposes of punishment and provided for compensation of loss and injuries suffered by persons in consequence of negligence of the owners of animals.[2]

The Austinian definition of law, therefore, based either on the source of command or its contents or the being to which it is addressed is bound to be inapplicable to ancient systems of law. By describing juridical norms as orders emanating from the State, it looked upon law as exclusively

[1] In the English Law of Deodand, which survived up to the middle of the 19th century, there is a relic of the ancient custom that anything injuring or killing a man must undergo religious purification. A beast which killed a man or a tree which fell upon a man was *deodand*, *i.e.*, was confiscated and sold for charity—a somewhat humanised version of the old Athenian process whereby the axe that killed a man was brought to trial, and, if found guilty, solemnly thrown over the boundary of the city. Similarly animals were considered as amenable to laws up to very recent times on the continent of Europe and an elaborate process was followed specially by the French courts in the trial and the punishment of domestic and wild animals; the last instance of the enforcement of this absurd law was in the year 1748, when a cow was hanged.

[2] The question whether the animals and the gods have any share in the duty of practising Vedic observances is discussed in Kātyāyana's Śrauta-Sūtras (I, 1, 4). Kātyāyana concludes that animals have no such duty as they only look to what is near at hand and not to the rewards of a future world, *i.e.*, on account of the absence of rationality and conscience.

State product. Consequently, there can be no law where there is no State. In other words, neither customary law nor international law is true law. The essential mistake was the confusion of law with legislation. Comparative jurisprudence and comparative politics have clearly established this important fact—that constraint by State is not the fundamental attribute of the law, nor is it an element common to legal phenomena. Korkunov has justly observed, "The law of each people is a result of a continuous evolution throughout its history. Every historic epoch, however, brings its own moral notions, its own conditions of life, which determines the matter of its laws. So the law of a people is built up in historical layers."[1] The only universal conception in law is that there is a command—not necessarily by a determinate political superior in a State—with its consequent sanction in case of disobedience, whatever the source of the command or the nature of such sanction may be and whoever may put the sanction in force, either the State Judiciary, or a formidable theocracy, or the communal assembly.

Thus it is clear that to the question—what is law ?—no categorical or comprehensive answer can safely be given. Not only do systems of law change their contents, but the conception of law itself changes with the progress of society. As we want to look at the history of laws and of their administration, we must glance at the evolution of the idea of law itself. And this glance will show us something of the secret places of human thought. For man, in his earlier stages at least, is a very material creature; and law concerns his material interests. He is, likewise, a creature of strong and ill-regulated passions; and law is the force which controls them. Therefore, men's ideas of law are very genuine; they are the expression of his inmost feelings, the truest possible index to his character and culture. The

[1] "Theory of Law," Bk. I, Ch. II, Sec. 10.

study of law as a mass of arbitrary rules is, surely, one of the most repulsive pursuits in which a man of intelligence can engage. The study of a legal system, as a deliberate attempt to cover and regulate the material activities of man, appeals only to the logical faculties of a student and creates but a limited horizon. But the scientific study of Law as a record of human progress, as the golden deposit of the stream of Time, is worthy of the highest intellect and stimulating to the most gifted imagination. The study of the genesis and growth of law in ancient India and its practical administration by the clan and the state is as fascinating as it is interesting. We shall follow the evolution of the law which has "the oldest pedigree of any known system of jurisprudence," and in these days of national renaissance the study and investigation of the gradual emergence of the ethico-juristic consciousness of the ancient Indians is of the highest importance.

EVOLUTION OF THE STATE AND LAW.

The earliest glimpse of Indo-Aryan society in the Rig-Veda reveals to us a tribal state—based on the family as the unit bound together by the tie of consanguinity and the worship of common ancestors. The Rig-Veda presents to us joint families of the patriarchal type founded generally on the principle of agnation. The earliest type of Roman polity closely resembled the ancient Indian. The Vedic polity was in its early stage a tribal state (*jana*) made up of number of clans (*viś*)[1] which were again aggregates of villages (*grāma*). Similarly, the *tribus* of the ancient Roman City-State was made up of a number of clans (*gens*) which were aggregations of families, bearing a common name and tracing their descent from a common ancestor.[2] Even in the developed political life of Italy there was a survival of the *pagus*—a tribal or ethnic unit composed of a number of villages (*vici*), which seems to resemble the *tribus* of the fully formed City-State.[3] This interesting analogy shows that the earliest form of State both in ancient India and in ancient Italy was a confederation of smaller units, bound by the tie of kinship. From such evidences derived from

[1] The expression *vis* is of doubtful significance. As Keith and Macdonell have pointed out, in many passages of the Rig-Veda the sense of "settlement" is adequate and probable; in other passages it means "subject" or "people." (V. I., II, pp. 305-6). There are other passages where it means "clan," a sub-division of the *Jana* or the whole tribe; *e.g.*, the above passage shows that *vis* was different from *Jana*, *Janmana* and *putra*. In another passage (X, 91, 2) it is again differentiated from both *grīha* and *jana* :—

Sa darśata-Śrīr-atithir-grihe grihe vane vane śiśriye takkavīr-iva
Janaṅ-janaṅ janyo nāti-manyate viśa ā ksheti viśyo viśam-viśam

Atharva-Veda (XIV, 2, 27,) uses *viś* as a division less than the whole people in the sense of clan (W.A.V., p. 758). Zimmer also takes *viz* in this sense (*Alt Leben*, p. 159) as 'Gau.'

[2] "Roman Law," Muirhead, p. 6.

[3] "Roman Public Life," Greenidge.

comparative politics certain political philosophers have concluded that the family was the germ from which higher forms of social organism have been gradually evolved. There is a verse in the Rig-Veda which describes the different organisations in the Vedic polity and shows that the tribe was the highest political unit.

Sa ij-janena sa viśā sa janmanā sa putrair-vājaṁ bharate
dhanā nṛibhiḥ
Devānāṁ yāḥ pitaram-āvivāsati śraddhāmanā haviśhā
Brahmaṇaspatiṁ
(II, 26, 3.)

"Wer den Vater der Götter für sich zu gewinnen sucht, gläubigen Sinnes durch Opfer Brahmaṇaspati, der erlangt Beute Reichthum durch die Männer: durch Stamm (*janena*), durch Gau (*vicā*), durch Verwandtschaft (*janmanā*), durch Familie (*putraih*)."

(Zimmer, *Altindisches Leben*, p. 160.)

The Vedic tribes had no words for their countries. They were mostly known as the Alinas, or Uśinaras, or Kāśis, etc. The "Pañcha janāḥ" or "five tribes" are often mentioned in Vedic literature; both Zimmer (*Altindisches Leben*, 119-123) and Macdonell (*Sanskrit Literature*, 153-54) have identified them with the Pūrus, Turvaśas, Yadus, Anus and Druhyus, who are all mentioned in one hymn of the Ṛig-Veda:—

Yad-Indragni Yadushu Turvaśeshu Yad-Druhyushv-Anushu
Pūrusha staḥ ataḥ
(I, 108, 8.)

We get sometimes indirect descriptions of their geographical settlements like "Sapta-Sindhu," *i.e.*, a tract which was traversed by seven rivers. We have of course a few names of countries like Gandhāra, Sindhu, etc., which show that particular tribes occupied these regions; but there was

no abstract notion of territorial states. These Vedic tribes were ultimately coalesced into nations with new names.

Modern researches have established that the family was the initial society among the different races of mankind and that at a very early ethnical period the family often became patriarchal.[1] From the Scriptural example of Jacob and Esau as well as from evidence of ancient Indo-European history Sir Henry Maine pointed out that primitive communities were but expansions of single families into larger bodies of kindred, connected by common subjection to the highest male ascendant and by the bond of kinship, supposed or real. According to him the aggregation of these families formed the Gens or House; the aggregation of Houses made the Tribe; the aggregation of Tribes constituted the Commonwealth or State. The State was thus the result of the expansion of its primordial cell, the family. From the patriarchal family have been successively evolved all the higher forms of political organisation and the genealogical organisation of society preceded the territorial.

We must not fail to notice the luminous criticisms of the different writers who adversely commented upon Maine's celebrated theory. Of them the first was the great philosopher, Herbert Spencer, who accused Maine of ignoring the great mass of barbarous and uncivilized peoples among whom parents exercise little or no control.[2] McLennan also subjected Maine's theory to critical examination and pointed out that the Hebrew Scriptures, where Maine perceives "the chief lineaments" of patriarchal society, far from revealing the patria potestas and agnation bear witness

[1] It is to be noted, however, that Sir Henry Maine was not quite correct in holding that the primitive family of the Roman type was the "primordial cell of social development," when he said that "the effect of the evidence derived from comparative jurisprudence is to establish that view of the primeval condition of the human race which is known as the Patriarchal Theory." (*Ancient Law*, Pollock's Edition, 1912, Ch. V, p. 131.)

[2] "Principles of Sociology," I, pp. 713-37.

to polyandry and the recognition of kinship in the female line.[1] According to him abundant evidence of original promiscuity and of the maternal system of kinship is disclosed among the ancient races.[2] From certain verses in the Ṛig-Veda and the Atharva-Veda and from certain passages in the different Smṛitis it has been argued that polyandry was in vogue for a very long time in ancient India. The following verse in the Ṛig-Veda,[3] which is also repeated in the Atharva-Veda [4] has been cited as evidence of the custom of polyandry in Vedic India :—

Tubhyam-agre pary-avahan sūryāṁ vahatunā saha
Punaḥ patibhyo jāyāṁ dā Agne prajyā saha

"Mayest thou, O Agni, give to us husbands our wife, together with progeny..." [5]

Āpastamba speaks of the forbidden practice of delivering a bride to a whole family (*kula*) :—

Kulāya hi strī pradīyata ity-upadiśanti
Tad-indriyadaurbalyād-vipratipannam [6]

Bṛihaspati refers to the same custom (*kulę kanyā-pradānam*) almost in the same terms.[7] An ambiguous

[1] "The Patriarchal Theory," edited by Donald McLennan.

[2] Maine revised his opinion in his later works—*Early Law and Custom, Village Communities*, and *Early History of Institutions*. Sir Frederick Pollock has justly remarked, "much trouble and confusion might have been avoided, if Maine had in the first place expressly confined his thesis, as for all practical purposes it was confined to the Indo-European family of nations." (*Ancient Law*, Pollock's Edition, p. 177) Whatever might be the case with other races, it is certain that at the earliest period of which we have any distinct knowledge—the patriarchal family was the condition [illegible]e Indo-European family of nations.

[3] X, 85, 38.

[4] XIV, 2, 1.

[5] Wilson's tr., Vol. VI, p. 230.

[6] II, 10, 27, 2-4 ; S. B. E., Vol. II, p. 164, Bühler's ed. (Bombay), p. 93.

[7] XXVII, 20 ; S. B. E., Vol. XXXIII, p. 389.

passage of Nārada has also been construed in favour of the polyandrous theory :—

Dve bhārye kshatriyasy-ānye vaiśyasy-aika prakīrttitā
Vaiśyāyā dvau patī jñeyāv-ekā-nyaḥ kshatriyā-patiḥ[1]

A well-known rule of Manu[2] has also been construed in favour of this theory as an instance of "Gruppen-ehen" or group marriage.[3] Manu in this verse lays down that the son of one among several brothers should be looked upon as the common son of all :—

Bhrātṛiṇām-eka-jātānām-ekaś-chet-putravān-bhavet
Sarvāṁ-stāṁ-stena putreṇa putriṇo Manur-abravīt

The Vedic passages quoted above are no indications of polyandry in the Vedic period. The whole adhyāya, if read carefully, proves that such inferences are untenable ; as the very next verse in the Ṛig-Veda would clearly show :—

Punaḥ patnīm-agnir-adād-āyushā saha varchasā
Dīrghāyur-asyā yaḥ patir-jīvāti śaradah śataṁ

"Agni gave the wife back again with life and splendour ; may he who is her husband enjoying long life live a hundred years."[4]

Āpastamba, Manu and Bṛihaspati were averse to the practice of *Niyoga* ; hence they have been interpreted as obviously referring to something different from *Niyoga*. But the text of Āpastamba refers to an ancient custom which was enjoyed by the early sages but had been obsolete by his time. Manu merely repeats the dictum of Vaśishṭha (XVII, 10) which is also given in Vishṇu Smṛiti (XV, 42). The

[1] XII, 6 ; S. B. E., Vol. XXXIII, p. 166 ; Bib. Ind., p. 173.
[2] IX, 182 ; S. B. E., Vol. XXV, p. 365.
[3] *Recht und Sitte*, Jolly, p. 47.
[4] Rv. X, 85, 39 ; Wilson's tr., Vol. VI, p. 230.

true meaning of Manu's rule is quite clear from Bühler's translation and does not refer to survivals of polyandry :—

"If one among brothers, sprung from one (father), one have a son, Manu has declared them all to have male offspring through that son." [1]

The statement of Bṛihaspati occurs in a long text in which various forbidden practices, prevailing chiefly in South India, are recorded.[2] The laconic text of Nārada, properly understood, disproves the polyandrous theory. The literal translation of the text as—"A Vaiśya woman may take a husband of two different castes; and a Kshatriya woman may take a husband of one different caste,"—lends itself easily tc mis-interpretation. But Jolly has paraphrased the original text as follows—"A Vaiśya woman may either take a Vaiśya husband, or she may wed a Kshatriya or a Brahman. A Kshatriya may either take a Kshatriya husband, or she may marry a Brahman." [3] The true import of this passage is thus clearly against the polyandrous theory.

According to Maine "relationship is exactly limited by the patria potestas. Where the potestas begins, kinship begins ; and therefore adoptive relations are among the kindred. Where the potestas ends, kinship ends; so that a son emancipated by his father lose all rights of agnation. And here we have the reason why the descendants of females are outside the limits of archaic kinship." [4] The basis of the patriarchal family was the patria potestas, but the patria potestas was not and could not be a durable institution.[5] Yet its former universality may be inferred from certain derivative institutions, such as the perpetual tutelage of women, the guardianship of minors, the relation of master

[1] S. B. E., Vol. XXV, 365.
[2] S. B. E. Vol. XXXIII, p. 389.
[3] S. B. E., Vol. XXXIII, p. 166n.
[4] "Ancient Law," Ch. V, p. 155.
[5] "Patria Potestas in Ancient India," N. C. Chatterjee, J.A.S.B.

and slave, and specially from agnation which is, as it were, a mould retaining the imprints of the paternal powers after they have ceased to exist. Applying this test Maine finds evidence of the existence of the potestas among the primitive Aryan people which were "originally organised on the patriarchal model."[1] In Hindu genealogies the names of women are generally omitted and even in modern times kinship is agnatic in the Mitāksharā law. The custom of the Salian Franks excluding females from governmental functions had an agnatic origin. The Normans excluded uterine brothers and, when Norman law was transplanted to England, brothers of half-blood were prevented from succeeding to one another.

[1] *Ibid.*

The Date of Mricchakaṭika from Astrological Data.

BY

JYOTIS CHANDRA GHATAK., M.A.

There are at least three passages in the Mricchakaṭika which are of *towering importance* in as much as they afford us some definite clues as to the chronology of this drama. The data which these passages give us, are astrological; and I shall put down the principal points here as briefly as possible.

These passages are all verses. Two of them are to be found in the 6th Act (the 9th and 10th verses there) and the third occurs in the 9th Act (being the 33rd verse of it). Of these verses the last—*viz.*, 9, 33, I consider to be of paramount importance as it furnishes certain very definite data as regards the age of the composition of this drama.

In this verse, Chārudatta (the hero) who is a very generous and high-souled gentleman is compared to Brihaspati (the planet called Jupiter). In Astrology Brihaspati is considered to be the most benevolent of all planets. (*Cf.* गुरु-ध्वज-कवि-भृगुः सुर्यंथापूर्वं शुभग्रहाः।) The Śakāra who is the brother-in-law of the king is compared to Mars (*Skt.*—'Mangala' or 'Angāraka'). Now, as luck would have it, Chārudatta was brought before the Court of Justice under a false charge of having killed a woman of the city named Basantasenā and having robbed her of her ornaments. Circumstantial evidence was already against him, since the mischievous Śakāra managed everything so cleverly as to implicate Chārudatta very thoroughly. The miserable plight into which Chārudatta was thus brought is compared to 'प्रक्षीणता' or utter weakness of the planet called Jupiter. And when to fill the cup of Chārudatta's misery, his friend

Vidūshaka accidentally dropped some other ornaments which he was carrying elsewhere in that very Court room, it became very easy for Śakāra to implicate Chārudatta. Hence this Vidūshaka has been compared to 'धूमकेतु' or comet; since comets not only physically overpower the luminous rays of the planets but are believed to overcome and spoil the benevolent influence which a good planet may shed.

Now, Jupiter is here stated as being 'अङ्गारक-विरुद्ध,' *i.e.*, 'inimical to Mars.' Now, in Astrology, each of the planets has got its enemies, its friends and also its neutrals. It is a superbly noteworthy fact that this Mars was known to be the enemy of Jupiter in very old treatises on Astrology and long before the time of Varāha-Mihira. This I shall prove in the folowing lines.

There are two kinds of enmity or friendship amongst planets: one is '*Essential*' or '*Natural*' (नैसर्गिक) and the other is '*Mutable*' or '*Accidental*' (तात्-कालिक). Now all the astrologers beginning from Varāha-Mihira up to those belonging to the very present time, designate 'Mars' and 'Jupiter' as friends to each other. So that even if we interpret the said passage of Mricchakaṭika, in the light of Accidental friendship, the two planets can never grow to be friends to each other, since according to the method of Accidental relationship (तात्-कालिक-मैत्री-विचार) they can, at the highest, become 'सम' or 'Neutral' to each other. Thus it would be quite obvious that 'अङ्गारक-विरुद्धस्य' must be interpreted from the stand-point of Natural fellowship.

The weakness of Jupiter which is referred to in the said passage by the term 'प्रक्षीण' may be due to any one of the following causes or to a combination of some of them.

(1) When a planet is in his *Fall-House* (नीच-भवन). It is then called 'दीन,' *i.e.*, 'wretchedly weak' (according to Kalyāṇavarman, the author of Sārāvali); 'अति-भीत' ('terrified'), according to Jātaka-Pārijāta.

(2) When a planet is in his *Detriment House* (अस्त-भवन).

(3) When a planet is '*Combust*' ("दग्ध") or (अस्तमित). Then it is technically called 'विकल' ('out of order') according to Sārāvali, 'मुषित,' *i.e.*, 'robbed,' according to 'Daivajna-ballabhā' of Śrīpati-bhaṭṭa; 'क्षोभित,' *i.e.*, 'agitated' according to 'Saṅketa-kaumudi.'

(4) When 'in Siege' or 'besieged' (पाप-मध्य-गत). Then it is called 'कोपी' (*i.e.*, angry) according to Māna-Sāgarī and other treatises, दीन (*i.e.*, wretched) according to Sārāvali.

(5) When defeated in fight with other planets ('ग्रह-युद्धे पराजित'). Then it is called 'प्रपीडित' according to some; 'अति-पीडित' according to Pārijāta.

(6) When in conjunction with malefic planets—('पाप युक्त'). Then it is called 'लज्जित' ('bashful') according to some; 'विकल' and 'खल' according to others.

(7) When *posted in enemy's house*—(शत्रु-गृहस्थ). Then it is variously called as क्षुधित ('hungry'); सुप्त ('asleep'); 'अति-दीन' (very wretched) and even 'अति-दुःखित' according to some.

(8) When *progressing towards the Fall-House.* Then it is called 'परिक्षीयमान-वीर्य.'

(9) When in conjunction with Saturn (शनि-युक्त). Then called also 'क्षुधित.'

(10) When in a watery-sign and aspected by enemy without being aspected by benefic planets. Then it is technically called 'तृषित' ('thirsty').

(11) When in the house of a malefic planet (पाप-गृहस्थ). Then it is called खल ('mischievous').

Thus we see that Jupiter like any other planet can be effete or 'प्रक्षीण' (*cf.* 'perigrine planet') when it fulfils any one or more of the conditions given above.

We find in Varāha-Mihira's 'Brihajjātaka' that in his time that system of planets' mutual relationship which counts Mars as a foe of Jupiter, was still known but not much in vogue and was very rapidly falling into disuse. This will be apparent from the very language which

Varāha uses, *viz.*, "केषाञ्चिदेवं मतम्" (Ch. 2, Vol. 15). Moreover we learn from the commentator Utpala Bhaṭṭa that the Yavana professors of Astrology were very much in favour of this Mars-Jupiter-as-adversary system. Indeed he quotes passages from Yavaneswara. These Yavana scholars, whether they be Greek or other non-Aryan race, were held in high esteem even by Varāha-Mihira. In a most important chapter of his book, *viz.*, 'आयुर्दायाध्याय' (Determination of Longevity of creatures), he refers to 'Yavana' in a mood of high veneration. In his राजयोगाध्याय (11th chapter) he refers to him and even accepts his opinion.

Now, if by the word 'Yavana' we mean the Grecks (which is not the actual fact as I shall show in another paper of mine) alone, even then the age of Mricchakaṭika falls back by many centuries before Varāha-Mihira—very nearly in the 3rd century B.C. to 2nd century B.C. This appears to be so, because of the following reasons :—

(1) Firstly because the Grand period of great Greek contact of India occurred in the 4th century B.C. to 1st century B.C.

(2) The saintly sanctity which Varāha attaches to the name of Yavana, must have taken a good many centuries to mature itself into.

(3) The expressions 'Vriddha Yavana,' 'Yavanāchāryya,' 'Yavaneswara,' etc., which we meet very frequently in astrological treatises of some antiquity even, show that there were many sets of Yavana scholars of variedly different ages as well.

(4) As this Mars-Jupiter-adversary system was fast disappearing and had almost disappeared when Varāha flourished, it becomes quite obvious that the system when it prevailed in full force, must date back by a good number of centuries even from the time of Varāha-Mihira.

(5) The mention of 'Yavana' even before the name of Parāśara in 'मय-यवन-मणित्थ-शक्ति-पूर्वैः' (Ch. 7, V. I) betrays

probably the remote antiquity of the Yavana professor to whom Varāha alludes.

(6) The Yavanas were the great exponents of this Mars-Jupiter-adversary system as we learn from various sources of which Utpala Bhaṭṭa's verbatim quotation is also one.

Thus we see that 3rd to 2nd century B.C. is the lowest limit for Mricchakaṭika even if we mean by Yavanas the Greeks only. But if by Yavana is meant not simply the Greeks but some of the Non-Aryan or Mlecchа races of North-western Asia as well [as we have abundant reasons to believe and as Varāha very clearly shows when he states—"म्लेच्छा हि यवनाः" (Ch. 2, V. 14)], then the date of Mricchakaṭika must be pushed back by still some centuries more. In Adbhuta-Sâgara, Vallâlasena gives a list of authors or books he consulted in preparing his own book and in so doing seems to give an approximately correct chronology of those authors. This appears to be so because Vṛddha-Garga is mentioned first, then Garga, then Parāśara and so forth, and Yaveneswara is mentioned before Varāha-Mihira. Now this Yavaneswara was simply one of such Yavana professors who was very probably a king. But that there existed very ancient Yavana astrologers would be apparent from the fact that one such ancient professor is spoken of as being one of the 18 (eighteen) principal first exponents of this science. We have got at least three authentic lists of these 18 आदि गुरुs on Astrology and it is a noteworthy fact that the name of Yavana occurs in all of them.

E.g., (1) कश्यपः—

"सूर्य्यः पितामहः व्यासः वशिष्ठोऽत्रिः पराशरः ।
कश्यपो नारदो गर्गः मरीचिर्मनुरङ्गिराः ॥
लोमशः पौलिशश्च व च्यवनो यवनो भृगुः ।
शौनकोऽष्टादशाश्चैते ज्योतिःशास्त्र-प्रवर्त्तकाः ॥"

(2) नारदः—

ब्रह्माचार्य्यो वशिष्ठोऽत्रिर्मनुः पौलस्त्य लोमशौ ।
मरीचिरङ्गिरा व्यासो नारदः शौनको भृगुः ॥
च्यवनो यवनो गर्गः कश्यपश्च पराशरः ।
अष्टादशैते गंभीरा ज्योतिःशास्त्रप्रवर्त्तकाः ॥

(3) पराशरः—

विष्वक्सेन नारदो व्यासो वसिष्ठोऽत्रिः पराशरः ।
लोमशो यवनः सूर्य्यः च्यवनः कश्यपो भृगुः ॥
पुलस्त्यो मनुराचार्य्यः पौलिशः शौनकोऽङ्गिराः ।
गर्गो मरीचिरित्येते श्रेया ज्योतिःप्रवर्त्तकाः ।

The 'Yavana' of these three lists undoubtedly belongs to a period far more anterior to that of विष्णुगुप्त or Chāṇakya. A perusal of Kauṭilya's Arthaśāstra would convince how Manu, Bhrigu, Parāśara, etc., were known to him. And if Yavana was also equally old, he too must have been known to him. So that the Yavana professor referred to by Varāha-Mihira is very probably this ancient scholar.

That great Yavana scholars and professors of Astrology flourished even before the time of the sage Garga and therefore long before the 6th or 7th century B.C., I shall try to demonstrate here. Varāha-Mihira's Vrihat-Saṃhitā is replete with references to and sometimes with quotations from Garga. In one such quotation (which either quotes the very words of Garga or at least gives the purport) it is said:—(*cf.* Ch. 2, between verse 5 and 6) (उक्तञ्च गर्गेण महर्षिणा).

"म्लेच्छा हि यवनास्तेषु सम्यक् शास्त्रमिदं स्थितम् ।
ऋषिवत् तेऽपि पूज्यन्ते....." ॥ etc.

And Parāśara also has quoted from Garga very largely. Indeed Garga seems to be Parāśara's teacher, *cf.*—

बृहत्पाराशरीहोरा उत्तरभागः—12th ch., slokas 41 and 42.

(1) "कल्पादौ भगवान् गार्ग्यः प्रादुर्भूय महामुनिः ।
ऋषिभ्यो जातकं सर्वं उवाच कलिमाश्रितः ॥
अस्मिन्नुत्तरभागे तु मयाऽनुक्तञ्च यद् भवेत् ।
तत् सर्वं गर्गहोरायां मैत्रेय त्वं विलोकय ॥"

Again (2) Uttara-Bhāga —20th chapter, slokas 4 and 5.

वेदेभ्यश्च समुद्धृत्य ब्रह्मा प्रोवाच विस्मृतं ।
शास्त्रमाद्यन्तमेवेदं वेदाङ्गं वेद-चक्षुषी ॥
गर्गस्तस्मादिदं प्राह मया तस्माद् यथा तथा ।
तदुक्तं तव मैत्रेय शास्त्रमाद्यन्तमेव हि ॥

Utpala Bhaṭṭa quotes a tradition that Sōma taught Parāśara. Now, whether Parāśara got the traditional lore from Sōma or Garga, it is nevertheless true that Garga was anterior to Parāśara, and that both of them belonged to a period much anterior to the 5th or 6th century B.C. That both Parāśara and Garga flourished in a period much anterior to the 5th or 6th century B.C., would be apparent from the fact that both of them acknowledge कृत्तिका (Pleiades) as the 1st star of Nāga-vīthi. Did the vernal equinox happen at Bharaṇī during their life-time they would have undoubtedly begun from Bharaṇī constellation and not from Krittikā.

Besides, Pāṇini's references to both Garga and Parāśara (undoubtedly the astrologer Garga since he is the most well-known figure of all other Gargas even in the Mahābhārata—and the law-writer or astrologer Parāśara was the only renowned Parāśara we hear in the Mahābhārata and the Purāṇas—*viz.*, the father of Kṛishṇa who was 'Dvaipāyana' and 'Vyāsa') are so many (especially in the Taddhita chapter) and so significant (*e.g.*, as Gotra Pravartaka Sage) (hence we hear in Pāṇini such names a Gārgī, Gārgya, Gārgyāyana and so forth) that it can be said almost without any reserve that both of them flourished long before Pāṇini.

Again, the mention of 'Yavana' by Varāha-Mihira in the 1st sloka of the 7th book of Brihajjātaka giving him a precedenc_e

to Parāśara (Śaktri-pūrva) even, appears to be something more than mere obedience to grammar. It would be idle to say that the metre compelled him to place the name of Yavana before Parāśara; since, Varāha-Mihira had an extraordinary mastery over metre as would appear from his Brihat Saṁhitā, Chapter 104—which is regarded as a colossal achievement in metre by all Sanskrit scholars. Besides, that very one is the first sloka of the chapter and as such could have easily been changed by him if he chose so. Now to turn to the grammatical pretext Some grammatical scholars might just say that it was due to "अल्पाच्तरम्" (*i.e.*, words having smaller number of syllables should be put first) that Yavana was mentioned before. To these I have to retort that the rule of seniority or priority as told by Paṇini, is no less an important one; since in 'निदाघवर्षा' the word 'Nidāgha' although it contains a larger number of syllables, is still put first. And after the fashion of these usages and rules, the word 'यवन' is very probably put before Parāśara to denote priority.

One might just ask here what the opinion of Parāśara is about the planets' relationship. Now, before answering that question I would say a few words about the 'Brihat Pārāśarī Horā' as handed down to us. This book professes to be the bearer of the traditional lore on Astrology as taught by Parāśara. But the book in its present form is undoubtedly—

Either (1) a very modern abridged edition of some older Parāśara text or (2) a very old recension which undoubtedly remained out of use for many centuries together. This is borne out from the following facts :—

(1) Utpala Bhaṭṭa who flourished in the 10th century A.D. laments over the startling fact that he never saw any treatise of Parāśara on Jātaka or Nativity Astrology. If such an old astrologer of his erudition and culture did not know of the existence of such a work, it is but protrudingly

obvious that the Brihat Pārāśarī Horā either did not exist at all or was completely out of use from remote antiquity for some centuries together.

(2) There are three slokas in the 22nd chapter of the 1st Book (*viz.*, 54-56 verses) which were known to Bhaṭṭotpala but still he attributed the authorship of one of them, *viz.*, '**चन्द्राच्चतुर्थैः सुनफा,**' etc., to *Śruta-kīrti* and of the other two *viz.*, '**यद्राशिसंस्थे शीतांशु,**' etc., and '**द्वादशैरनफा ज्ञेयः,**' etc., to *Jīva-Śarman.* These two names are not fictitious ones. They are very old authors and have been referred to even by Varāha-Mihira (*cf.* verse 9, Chapter 7, and such other passages). It, therefore, appears that either a very recent and erudite astrologer culled such important passages from various sources and passed them on with the stamp of Parāśara upon them or that such passages actually existed in the original Parāśara treatise but that the Parāśara Śāstra being long out of use, such plagiarism on the part of Jīva Śarman and Śrutakīrti could not have been detected. I have collected abundant examples in its favour, all of which would illustrate a parallel fact. Let me point out at least one such case here. The verses (1) '**अधम-सम-वरिष्ठान्यर्ककेन्द्रादि-संस्थे**' (Ch. 13, v. 1, B.J.), (Ch. 6, v. 65 S.D.). (2) '**लग्नादतीव-वसुमान् वसुमान् शशाङ्कात्,**' etc., (Ch. 13, v. 9 B.J.:—Ch. 6, v. 64, S.D.). (3) '**मत्स्यौ घटी-नृ-मिथुनं**' (Ch. I, v. 5, B.J.). (4) '**क्रिय-तावुरि-जितुम**' etc. (Ch. I, v. 8, B.J.). (5) '**कालात्मा दिनकृत्,**' etc., (Ch. 2, v. 1 B.J.). (6) '**हेलिः सूर्यः,**' etc., (Ch. 2, v. 2, B.J.). (7) '**रक्तश्यामः,**' etc. (Ch. 2. 4. B.J.) and many others, have been purloined verbatim by 'Śri-nibāsa in his Śuddhi-Dīpikā, without any mention there of Varāha's name. This has been possible because the chronological gap between Varāha and Śrī-nivāsa has been one so immensely great, *viz.*, nearly a thousand of years.

Thus it appears that even if these very slokas of Brihat Parāśara of to-day occurred also in the original ancient Parāśara text, then the large chronological gap between

Parāśara on the one hand and Jīvaśarman and Śruta-kīrti on the other, allowed the plagiarism to remain quite undetected. So that when Mars is found as a friend of Jupiter in Brihat Pārāśari, it only reveals the fact that either because of a rather recent date of the present recension, it was bound to count Jupiter as a friend of Mars, thus treading on the heels of his immediate predecessors or that Mars might have been reckoned as a friend of Jupiter in the days of Parāśara, long before the 5th century B.C., when the widely inundating current of Yavana astrological culture had not yet impetuously flowed over the whole of India and settled there for centuries.

Thus, we see that in any case the date of Mricchakaṭika cannot be brought forward to a later period than the 3rd century B.C. Now, I shall conclude my theme with a few remarks on Practical or Experimental Astrology.

Very aptly, indeed, does Śiva-rāja, a very practically shrewd astrologer of great reputation of the 3rd or the 4th century A.D., raise a shrill note of disapproval against the Mars-Jupiter-as-friends system. He felt very keenly in his everyday experience the non-consonance of Mars-Jupiter-as-friends system with real and actual facts. Let me quote here his emphatic protest against this method and his most pregnant remark on this very point.

"जीवो बुधेज्यौ शुक्र-ज्ञौ व्यर्का व्यारा विविध्विनाः ।
वीन्दिनारा इनादीनां मित्राण्यन्ये तु शत्रवः ॥"

And also, "स्फुटो मित्रारिभावोऽयं सर्वैरुक्तो महर्षिभिः ।
नवो लोकप्रसिद्धस्तु न प्रत्यक्ष-फलो यतः ॥"

He calls the system which reckons Jupiter and Mars as friends a *new* one and one not in accordance with the opinion of the ancient sages. So that even in Parāśara's time there might have been prevalent the Mars-Jupiter-adversary system if Śiva-rāja knew the tradition correctly.

This Śivarāja or Śivadāsa includes, therefore, even Varāha-Mihira among the नव or rather modern astrologers. He clearly asserts that Mars-Jupiter-as-friends system never tallies with actual facts. Śivarāja quotes Śrīpati of < 1040 A.D., Bhojarāja and his works 'Rāja-Mārtaṇḍa' and 'Rāja-Mṛigānka' of < 1050 A.D., Daivajna-ballabha of < 1100 A.D., Horāmakaranda of < 1100 A.D., and also Bhāskarācharyya of <1150 A.D. He is referred to by Pītāmbara of <1520 A.D., who is a commentator on 'Vivāha-Paṭala. Śivarāja also quotes Jātaka-Pārijāta of Vaidyanāth but its date is not yet exactly ascertainable.

It is further interesting to note that the author of 'Jātaka-Tilaka,' another shrewd practical astrologer, also raised the same note of dissent. He too is in favour of the Mars-Jupiter-adversary system and he strongly criticises the fallacious system of Mars-Jupiter-as-friends which reigned supreme in his time as well.

I quote him verbatim below:—

होराशास्त्रेषु सर्वेषु भ्न-सितर्क्षे गुरुः शुभः।
जीवस्य भ्न-सितौ शत्रू यदि तद् युज्यते कथम्॥

And again, अशुभौ भ्नौ रविक्षेत्रे रविः क्लं शकरः भ्नभे।
यदि मित्रगृहस्थौ स्तः कथमत्राशुभं फलम्॥
इत्यादि बहुधा चैतद् युक्ति-युक्तं न दृश्यते।
अधिमित्रादि-युक्तिश्च नैषा पूर्वर्षि-भाषिता॥

i.e., "In all the Nativity astrologies, Jupiter is pronounced as very benevolent when posted in the mansion of Mercury or Venus; now, if Mercury and Venus be the enemies of Jupiter how can the two things be consistent with each other, etc."

Here, I shall refer to a number of most illustrious and important horoscopes which I have gone through very carefully and which I consider as extremely significant in settling this much-disputed point of planets' relationship to one another, once for all. Jupiter (बृहस्पति)

symbolises and rules over acute judicial discrimination, deep legal penetration, ripe wisdom in general, scientific acumen and investigation as also vast scholarship and love of study. These are the most important Jupiterian qualities put in a nutshell. None of these qualities is possible to be present in a marked degree in any individual in whose nativity Jupiter is badly posted, especially, if he be in his enemy's mansion. Now, if Mercury and Venus are the adversaries of Jupiter (as according to the present-day system, dating from Varāha-Mihira's time), then those individuals who have got Jupiter in the mansions of Mercury and Venus can never be remarkable and famous in those very qualities which are specially Jupiter's own. Thus we find that (1) *Michael Faraday*, (2) *Lord Kelvin*, (3) *Sir George Jessel*, (4) *Sir John Bright*, (5) *Justice Dwarkanath Mitra*, (6) *James Prinsep*, (7) *Prof. Thibaut*, (8) *Prof. Bohtlingk*, (9) *Prof. Maxmüller*, (10) *Mahes Chandra Nyāyaratna*, (11) *Ananda Mohan Basu* and (12) *Keshab Chandra Sen* and such others have all of them got *Jupiter posted in Mercury's house* in their horoscopes; and we also find that (1) *Thomas Edison*, (2) *Lord Curzon*, (3) *Lord Sinha*, (4) *Sir K. G. Gupta*, (5) *Sir Asutosh Mookerjee*, (6) *Sir Rames Chandra Mitra*, (7) *Sir J. C. Bose*, (8) *Dr. Brajendra Nath Seal* and such others have all got *Jupiter posted in the house of Venus.*

It is a great pleasure to note that our experience on these practical and most important points has been endorsed by the best English and American astrologers of these days. Thus, the conjunction of Jupiter with every planet is considered good excepting with Mars. And Mr. Raphael who bases his 'Key to Astrology' on purely practical experience gives the following on page 8 of his book (1909 Ed.), (Jupiter Conj. H., Sat., Sun, V, Merc or Moon) as a good conjunction, Mars being omitted from the list. *Vide* also Max Heindel's 'The Message of the Stars' (1919), p. 337. 'The person' having Jupiter in conjunction to Mars 'is tricky, deceitful,

untruthful,' etc. I must cease here from multiplying further examples.

Thus, it would be quite evident that Mars is the bitterest adversary of Jupiter and that the author of Mricchakaṭika very significantly institutes the simile—**अङ्गारक-विरुद्धस्य प्रद्दीपस्य बृहस्पतेः**, etc. ; and we feel a real pleasure in having found out the fertile chronological clue contained in that passage.

A BRIEF ACCOUNT OF MALAYALAM PHONETICS

BY

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I give below a list of the International Phonetic Association symbols that I have requisitioned for the following concise discussion of the phonetic habits of the Malayalam language. I am fully conscious of the fact that just as no two persons can utter the same sound exactly alike, no two languages also can have exactly similar sounds; yet after a careful examination of the IPA. script, I have attempted in this essay to make as close an adaptation of this script as possible to the sounds of the Malayalam language. The symbols given below represent the sounds occurring in the pronunciation of the people of the Cochin State, which, situated as it is right in the central portion of Malabar or the Malayalam-speaking land, has in a great degree preserved the true Malayalam sounds free from the contamination of the Kaṇṇaḍa or Kanarese influence in the north and of Tamil in the south.

Front Vowels.

[i] as in [pʌṭi] *step*, [mʌṭi] *lap, laziness.*

[i:] as in [ti:] *fire.*

[e] and [e:] as in [ʧeṭi] *plant* and [pe:ṭi] *fear.*

[ɛ] not an ordinary sound in Malayalam, but occurs dialectally in words like [kɛʃəm] *hair*, [tɛn] *honey.*

[æ] as in [ɲæ·n] *I*, [ɲjæjəm] *justice.*

Mixed Vowels.

[ʌ] : this is the real sound of the first symbol of the Malayalam alphabet, which, however, retains its purity of sound only in stressed syllables of words, as in [mʌrʌm] *tree* ; [ʌmma] *mother.*

[a] : properly speaking, this sound should be considered to be a variety of the [ʌ] phoneme, for this is the sound of the Malayalam symbol

for [ʌ] whenever it occurs finally, as in [tʌra] *raised platform*, [c͡ʃi:tta] *bad*.

[ə] : a common sound in Malayalam : [kɑ:ṭə] *forest*, [kʌɳṭə] *having seen*.

Back Vowels.

[u] and [u:] as in [kuṭṭi] *child*, [mu:ṭi] *closed*.

[ɯ] occurs dialectally in Malayalam : it is a common sound in Tamil.

[o] and [o:] as in [koṭi] *flag*, [o:ṭi] *ran*.

[ɔ] not a common sound, but exists in some dialects, *e.g.*, [nɔm] *we*.

[ɑ:] : only the long and the half-long sounds are common in Malayalam ; the so-called short [ɑ] in Malayalam really is [ʌ] or [ə], or [ɐ], as shown above. [rɑ:mən, rɑ:mʌn] *the name Rāma*.

Consonants.

[k] as in [kʌḷḷən] *thief*.

[kʰ] as in [nəkhəm] *nail*.

[g] as in [gɑ:nəm] *song*.

[gɦ] as in [gɦʌnəm] *heaviness*.

[x] dialectal, as in [ʌdɦixəm] *much* ; or colloquial [pʌxʌjən] *rogue*.

[ɣ] as in [muruɣe] *tightly*, [kɑ:ɳɣa] *see*.

[ŋ] as in [mɑ:ŋŋa] *mangoe*.

[c͡ʃ] as in [c͡ʃiri] *laughter*, [c͡ʃʌkrʌm] *wheel*.

[c͡ʃʰ] as in [c͡ʃhɑ:ja] *image*.

[ʄʒ] as in [pu:ʄʒa] *worship*.

[ʄʒɦ] as in [ʄʒɦʌṭiti] *haste*.

[ɲ] as in [ɲæ:n] *I*.

[ṭ] as in [kuṭa] *umbrella*.

[ṭh] as in [pɑ:ṭhəm] *lesson*.

[ɖ] as in [ɖʌmbɦəm] *pride*.

[ɖɦ] only in a few rare Sanskrit words borrowed into Malayalam.

[ɳ] as in [kʌɳɳə] *eye*.

[ɭ] as in [kɑ:ɭlə] *wind*.

[n] as in [nʌnnə] *good* ; the same Malayalam symbol stands for [n] and [n], while in Tamil, which has two separate symbols, the same value [n] is given to both.

[t] as in [tɑ:mʌra] *lotus*.

[th] as in [ʃʌphəthəm] *oath*.

[d] as in [deja] *kindness*.

[dfi] as in [prədfiɑ·nəm] *chief.*
[n] as in [pʌni] *fever.*
[p] as in [pʌlʌka] *plank.*
[ph] as in [phʌləm] *fruit.*
[b] as in [bələm] *strength.*
[bfi] as in [bfiʌjəm] *fear.*
[m] as in [mʌrəm] *tree.*
[j] as in [jeʃʒəmɑ:nən] *master.*
[r] as in [rɑ:mən] *the proper name Rāma.*
[ṛ] as in [ʌra] *chamber.*
[l] as in [ila] *leaf.*
[ḷ] as in [kuḷʌm] *tank.*
[v] as in [vʌṭəkkən] *northern*, also [ʋʌṭəkkən].
[ʋ] as in [pu:ʋə] *flower*; or a glide, as in [ʋoru] *one* after the final vowel of a preceding word.
[ʃ] as in [ʃʌkɑ:rəm] *abuse.*
[ʂ] as in [kʌʂɑ·jəm] *medicine.*
[s] as in [sʌtjəm] *truth.*
[z] in colloquial [pʌrifiɑ·zəm] *ridicule*, [pɑ:jəzəm] *rice-milk.*
[ʒ] dialectal as in [be:ʒ] *Bravo!*
[ɻ] as in [vɑ:ɻəpʌɻəm] *plantain fruit*: a sound peculiar to Malayalam and Tamil.
[fi,h] as in [fiʌrifiʌrən] *a proper name, Hariharan,* [fiitʌm] *pleasure.*

Sanskrit symbols representing the sounds of vocalic [ṛ] and [ḷ] (or [ruu] and [luu]) have also been incorporated in the Malayalam alphabet, though used only in Sanskrit borrowings.

The Malayalam language is spoken by nearly eight millions of people occupying that tract of the West Coast which is called Malabar, between Gōkarṇam and Cape Comorin. The fact that this strip of land, bounded on the east by the Western Ghats and on the west by the Arabian Sea, forms a geographical entity by itself, has, besides leading to the conservation in this land of strange customs and habits of life, reacted on the language of the people and resulted in the creation and development of a new and independent language differing in many respects from the parent Dravidian stock. Though it was the same political government that in ancient times ruled over Malabar and some of the Eastern Tamil districts, the geographical situation of Malabar prevented an uninterrupted intercourse between the peoples of Malabar and the peoples of the Tamil

districts of the East Coast. The language spoken in Malabar, therefore, must even at a very early time have developed the tendency to disintegration from the Tamil branch of main Dravidian stock to which it belongs. There is excellent evidence to show that this tendency very rapidly matured about the ninth century A.D., and culminated in the formation of a language which, though it bore a great relationship to the Tamil, became sufficiently altered to deserve the name of an independent language. The Tamil language that was used and spoken in those days had two forms, of which one was called the [vʌrʌmoɻi] or *written language* used in books, and the other [vɑ:moɻi] or the *colloquial* employed in ordinary use. It was from this [vɑ:moɻi], or [koɖɯntʌmiɻɯ] as it was also called, that the Malayalam language developed. The basic structure of the new language that thus grew up in the West Coast remained essentially Dravidian, but at the same time the influence of Sanskrit and of Aryan civilisation as introduced by the Nambudiri colonists enriched the language with fresh Aryan ideas and, what was more, with a copious Sanskrit vocabulary. There are not wanting reasons for us to think that the Aryans largely colonised the West Coast even before they settled in large numbers in the Tamil districts. Sanskrit learning and literature took firm root in Malabar from the earliest times, and as centuries passed, its influence increased to the point of complete dominance. While infant Malayalam with no literature and ideals of her own thus allowed herself to be dominated by Sanskrit, her elder sister Tamil with her vast literary treasures and intellectual ideas was able successfully to resist the advances and the inroads of Sanskrit to a greater degree. The phenomenal popularity of Sanskrit in Malabar about 1000 A. D. infatuated the pedants even to the ridiculous extent of leading them to Sanskritise the grammatical forms of Malayalam, and to invent an artificial language called [mʌɳipr̥ʌvɑ·ɭəm]—an incongruous jumble of Malayalam roots and Sanskrit inflexional endings. This aberration, like many another linguistic artificiality and *Schwarmerei*, had only an impermanent existence and soon died a natural death. Only the book-language or the [grə*n*thəbʱɑ·ʃɑ·] was influenced by this new innovation, while the spoken language or the [*n*ɑ:ʈo·ti bʱɑ:ʃa] completely escaped the undesirable domination of this glorified pedantry. Thereafter, however great might have been the influence of Sanskrit over Malayalam, especially in the direction of enriching its vocabulary, the fundamental structure of the language as evidenced by the grammatical forms and endings remained essentially Dravidian. With the appearance in Malabar of a great literary genius, Thunchath Ezhuthachan [tunʧʌttə eɻuttʌʧən], there arose

a new style of speaking and writing which combined in itself the sonorous grace of the Sanskrit language and the natural simplicity of the Dravidian speech. The newly-developed language, however, suffered an irreparable loss in that it lost its power of forming fresh compounds to express new ideas, and consequently had in later times to draw freely upon Sanskrit vocabulary to make up this deficiency.

Till the time of Thunchath Ezhuthachan, the script used in Malabar was only a copy of the Tamil one, and the Malayalam alphabet contained only the Tamil symbols. The deficiency of the Tamil alphabet in sounds as well as in symbols is noteworthy. The glottal fricative [h] was absent in ancient Tamil, and as is only to be expected, the aspirates [kh], [gh], [cʰ], [jh], [ṭh], [ḍh], [th], [dh], [ph], [bh] were also absent. Again, separate symbols did not exist for the voiced sounds [g], [j], [ḍ], [d], [b], although the sounds themselves should be considered to have existed in ancient times and to have been indicated in writing by the symbols of the corresponding breathed ones. The original Malayalam alphabet which had only been a close copy of the Tamil one, was thoroughly revised about the time of Thunchath Ezhuthachan, and new symbols were borrowed or made for the representation of all Sanskrit sounds. The Dravidian sounds [*r*], [ɻ], [l], [*ṭ*], and [*ṇ*], which do not occur in Sanskrit, retained their place in Malayalam.

Thus the Malayalam alphabet includes the symbols for the old (Tamil) or Dravidian sounds and those of the Sanskrit. According to the orthodox classification, the alphabet consists of fifty-three letters, but the actual number of "phonemes" existing in the language is only *thiry-seven*.

The time-honoured classification of sounds adopted from Sanskrit phonetics by Malayalam scholars is subject to various defects inasmuch as it does not take into account the new developments of vowel sounds in Malayalam and omits to make provision for the changed values of certain consonant sounds also.

I shall now proceed to discuss some of the phonetic qualities of the Malayalam sounds.

Mixed Vowels.

1. (i) [ʌ]. This sound, symbolised by the first letter of the Malayalam alphabet, is erroneously supposed to be the equivalent of Indo-Aryan or Sanskrit [a]. The Malayalam sound is a less open one, and is exactly like the vowel sound in the English word *much* when deliberately uttered. [ʌ] is the value to be given to the Malayalam symbol for this

sound when it occurs initially or medially in stressed syllables (whether the stress is a primary one or a secondary one).

(ii) In unaccented syllables, [ʌ] verges on [ə]: *e.g.*, [ʌnʌntənɑ·rɑ·jəɳən] *Ananta-nārāyaṇan, a proper name.*

(ii) When this sound forms a syllable with a preceding voiced plosive, or [j], [r], [r], [l] or [l̤], then the sound changes into [ə], and sometimes into a full [e]: *e.g.*,

[ʄenəm] *people*; [bendfiu] *friend*; [revɪ] *sun*; [leta] *branch*; [jeʄəmɑ·nən] *master*; [jentrəm] *machine*; [ʄeləm] *water*; [gembfiirəm] *majestic*; [gɐŋŋa] *the Ganges.* In all the above instances the [e] of the first syllable is developed from [ʌ]. Also in [mɑ·l̤evika] *Mālavikā, a proper name*, and [kʌlefiəm] *dispute*, the [e] of the second syllable is developed from [ʌ].

(iii) When the sound is associated in any way with the bilabial [m], it may sometimes, in the speech of certain people, change into a kind of [ə], as in the following instances: [kʌʃṭəm] *misery*; [nəm] *we*; [pɔvənəm] *wind.* This change, however, is not so important or widespread as the previous one.

(iv) When [ʌ] occurs finally, it has always a more open value: I think that this sound may be represented by [a], as the completely open character of the back sound [ɑ] is never attained; [ʌmma] *mother*; [ɑ:ʃa] *hope*; [po:ka] *to go.*

(v) In association with [j], the [ʌ] becomes [ə] or [e] even when the [j] may be a compound with some other consonant: *e.g.*, [vjʌsʌnʌm] *sorrow* becomes [vəzənəm]; so also [pɾɑ·pjem] *obtainable*; [sʌtjəm] *truth*; [vʌljə] *big.*

(vi) The pure sound [ʌ] cannot be lengthened without disturbing its quality. The Malayali invariably uses the [ɑ:] when he wants to lengthen [ʌ]. It was probably this fact that created the confusion that [ʌ] was the short sound of [ɑ:].

(vii) [a], as indicated above, represents the sound-value of a final [ʌ]. Many Sanskrit words ending in [ɑ:] are shortened in Malayalam into [a], *e.g.*, [prəbfia] *splendour*; [gɐŋŋa] *the Ganges*; [ɑ:ʃa] *hope*; [kʌla] *art.* In Tamil these Sanskrit words are naturalised with an [əi] or [ej] ending, as final long vowels and even final [ʌ] are not favoured in Tamil. This tendency has been inherited by Malayalam in a much less intense form, and this is what probably accounts for the shortening of final [ɑ:] of Sanskrit words when they are naturalised in Malayalam.

2. [ə]. This is a very common sound in Malayalam.

(i) It occurs finally in many nouns which in the original Old Tamil language ended in [u] sound: *e.g.*, [kɑ:ṭə] *forest*; [pɑ:ṭṭə] *song*; [kɑ:ppə] *bangle*; [kʌṇṇə] *eye*. The equivalent of this primitive [u] in modern Tamil is [ɯ]: Kaṇṇaḍa has an [ə], and Telugu seems to retain the old final [u] itself.

In can be stated as a general rule that no native Malayalam word can be "hal-anta", that is to say, can end in a consonant. The only exceptions are furnished by those words which end in consonants known in Malayalam as [c̆illukʌl] *chips* or *branches*, i.e. [n], [ṇ], [j], [r], [*r*], [l], [l̆], [ɻ], [m]. When these consonants occur at the end of words, they can stand alone without the help of any vowel, *e.g.*, [mɑ:n] *deer*; [peṇ] *girl*; [*n*ej] *ghee*; [kʌjə*r*] *rope*; [pe:*r*] *name*; [pɑ:l] *milk*. But all these consonants can also alternatively take an [ə] sound to support them, and the words given above may also be pronounced as [mɑ·nə], [peṇṇə], [*n*ejjə] [kʌjə*r*ə] etc.

It is this peculiarity of the Dravidian languages that has led many Malayalam scholars to entertain the belief that consonants cannot be sounded without the help of vowels.

The genius of the Dravidian languages is so strongly averse to "hal-anta" endings that even borrowed foreign words ending in a consonant naturalise themselves in these languages with the addition of a characteristic vowel at the end. Such words are made "svarânta" in Malayalam with [ə], in Tamil with [ɯ], in Telugu with a full [u], and in Kanarese with an [ə]. *e.g.*, Malayalam [ko:*r*ṭə] for *court*; [skhu:ḷə] for *school*; [æ·kṭə] *act*; [sɑ:*r*ə] *sir*; [sle:*ṭṭ*ə] *slate*; [vɑ:kkə] from Sanskrit [vɑ:k] *speech*.

When Malayalam words are used in English, sometimes the reverse process is visible—[tʌ*r*ʌvɑ:ḍə] *family* used in English becomes [*θ*ɑ:və*d*]., [*th*ɑ:wæ*d*] = *Tharvad, Tarwad*.

(ii) the [ə] sound is common at the end of past participles in Malayalam, *e.g.*, [kʌṇṭə] *having seen*; [vʌ*nn*ə] *having come*. The symbol that stands for this sound [ə] was, till a very recent date, the same as for [u], so that confusion would arise easily, but of late a happy innovation has been introduced, and a special symbol has been found out to distinguish the [ə] sound from a full [u] which occurs in many past tense forms—[kʌṇṭu] *saw*, but [kʌṇṭə] *having seen*. The [ə] in the past participle is of course only a weakened form of the past inflexional ending [u].

(iii) [ə] also occurs as the weakened form of [a] or [ʌ] in unaccented syllables, *e.g.*, [vʌɻijɑ·ttrəkkɑ·rən] *traveller*; [bɦɑ·gəʋətər] *songster*.

All Malayalam grammarians regard this [ə] not as a full sound having one full "mātrā" or *mora*, but only as a half-sound.

Front Vowels.

3. (i) [i] and [i:] : the short sound is never so short in Malayalam as in English "bit" or "pit."

(ii) When the short sound is followed by a consonant of the [t] or [ṭ] series, or by [l] or [ɭ], [ʃ], [*r*] or [r] and a back vowel, then the [i] changes, especially in the colloquial, into the easier [e]: *e.g.*, [vila] > [vela] *price*; [iṭʌm] > [eṭəm] *place*; [pirʌḷuka] > [perʌḷuka] *to be smeared*; [vitʌkkjuka] > [vetəkkjuka] *to sow*.

When the immediately succeeding consonant is not followed by a short back vowel (usually [ʌ]), then the change does not take place, *e.g.* [irikkɲuxa] *to sit*.

Evidently this change is only the result of the tendency to harmonise and smoothen the utterance of dissimilar or antagonistic sounds.

This change is very frequent in the colloquial, and is not absent in the literary language also, though, in writing, the symbol does not represent [e] but only [i].

(iii) Conjunct consonants with "-y- subscript," i.e. a following [j], are broken up in the colloquial into [i] and [ʌ] : *e.g.*, [bɦɑ:gjəm] > [bɦɑ·gi:ʌm] *fortune*.

This change, however, hardly occurs in the language spoken by the literate classes who claim—and to a certain extent rightly too—to be able to pronounce Sanskrit conjunct consonants with greater "purity" than the people of other provinces of India.

4. [e] and [e:]. (i) The off-glide [i], usual in the English words "late" or "made," does not appear in Malayalam words. Malayali speakers of English do not at all note the presence of this off-glide, and pronounce "late," "made" [leit], [meid] *etc.* as [le:ṭ, me:ḍ].

(ii) [e:] has in certain words a tendency to become the more open [ɛ] as in English "there"; *e.g.*, [pɛ·pʌṭṭi] *mad dog*; [pɛrə] *name*; [kɛ·sə] *case*. Purists would regard this [ɛ] as a corruption, notwithstanding the fact that it is very frequently heard even in the speech of educated persons.

5. [æ]. In literary language, this sound occurs in [ɲæ·n] *I* (the first person singular), [ɲæṇṭə] *crab*; [ɲæ·ttəʋe·la] *a season*; [ɲæ·jerɑ·ʈ͡ʃa]

Sunday; [ɲjæjəm] *justice*. It will be seen from these instances that the front nasal [ɲ] easily gives rise to [æ].

In the colloquial, [ɑ:] sometimes becomes [æ] by the "fronting" influence of certain consonants *e.g.*, : [sɑ:jəŋkɑ·ləm] > [sæjeŋkɑ·ləm] *evening*.

Back Vowels.

6. [u] and [u:]. (i) Here again, the Malayalam short sound is never so short as the English vowel in "put".

(ii) Euphonic convenience sometimes turns the short [u] into an [o], as in the following instances:

[urʌkkjuka] > [orəkkjuka] *to be stranded.*

[uṭʌjuka] > [oṭəjuka] *to break.*

This change occurs under the same circumstances as those in which [i] changes into [e].

(iii) Conjunct consonants compounded with [v] or [ʋ] have a tendency, in the colloquial, to vocalise the [v] or [ʋ] into [u] : *e.g.*, [ʌʃvʌm] > [ʌʃʃuʌm] *horse*. This change, however, affects only the colloquial of the illiterate masses.

7. [ɯ]: (i) a very common sound in Tamil which corresponds to Malayalam [ə] at the end of certain words. Even in Malayalam, [ɯ] is the sound used by the illiterate classes in the place of [ə] at the end of words; *e.g.* [kɑ:ṭɯ] *forest*; [pɑ:ṭṭɯ] *song* etc.

This sound is described as an [u] sound "with the lips spread out"; in Tamil and in dialectal Malayalam, however, the lips are not spread out to a great extent.

(ii) The Dravidian tendency of introducing some short vowel after every consonant is evident in the pronunciation of the English words "little", "broken" [liṭł, broukṇ] *etc.*, in which the Tamilian and the Malayali introduce a short [ᵚ] sound and utter the words as [liṭṭɯl] and [broːkᵚn].

(iii) In pronouncing conjunct consonants where the first component is a plosive, most Tamilians and some Malayalis introduce a short [ᵚ] sound after the explosion of the plosive element: *e.g.* [kḷipᵚtəm] *exact*; [rətᵚnəm] *gem*.

Sanskrit-knowing scholars pronounce the conjunct consonants together without introducing any such short vowel.

8. [o] and [o:]. (i) The short and the long sounds have separate symbols in Malayalam. These sounds never develop an off-glide as in the

English word "note" or "boat" [nout, bout]. Examples: [kompə] *branch*; [po:kum] *will go*.

(ii) [o] results from [u] as shown in (6) above.

9. [ɔ]. This sound occurs in the dialectal speech of certain classes of people in words like [nɔm] *we*; [ʃʌvɔm] *dead body*; North Malabar [vɔ·n] < [ʌvən] *he*.

10. [a:]. (i) [a:] is the value of all Malayalam long symbols in accented syllables; in unaccented syllables the sound may be reduced to the half-long sound [a·], or short [a], or even [ə]: *e.g.*, [pṛʌdhɑ:nəmɑllətta] *not important*; [a:ʃa:ri] >[a·ʃəri] *carpenter* (colloquial).

(ii) Foreign words with [ɔ], as English "hospital" [hɔspitəl], and "college" [kʰɔ·lidʒ] are made into [a:spʌtri] and [ka:le·ʃʒ] or [ko:le·ʃʒ] in Malayalam.

The European seems to be guilty of exactly the opposite tendency, for a place name like [pʌrʌʃubhɑ:gəm] in Madras has been converted by him into [pə·svəkəm].

Diphthongs.

Those found in the alphabet are only [ʌi] and [ʌu], but there are many others occurring in the literary language and in the colloquial: *e.g.*,

[oi]: [poi] *went*;
[ei]: [nei] *ghee*;
[uo]: [puo] *will (you, he or I) go?*;
[iʌ]: [vʌliʌ] *big*;
[ie]: [niei] *you indeed!*
[aai]: [tai] *mother*;
[io]: [poio] *did [he, you or I] go?*

The diphthongal character of these combinations is ignored in the literary language where these vowel groups are mostly pronounced as two distinct syllables.

The words [poi], [nei], [puo] and [vʌliʌ] are respectively written as [po·ji], [nejja], [pu·vo] and [vʌlijʌ], and when these words are deliberately pronounced, all the sounds are fully uttered.

Consonants.

As already mentioned, the parent Malayalam alphabet, or [vʌṭṭeḻuttə] as it was called, was only a reproduction of the Tamil script, and so it contained no symbol for [ɦ] or for the aspirates. The symbols for these were only subsequently formed.

1. [k] (i) This is a true velar plosive, and fully maintains its character when it occurs in the accented syllable of the word or when it is doubled.

(ii) In unaccented syllables, it may be reduced to the fricative [x], as n [pʌrʌjuxa] *to say* or [nʌṭəkkuxa] *to walk.*

(iii) It may sometimes even disappear in unaccented syllables : *e.g.*,

[pʌkuti] *half* > [pʌxuti] > [pɑ·ti] ;

[mʌkəu] *son* > [mʌxən] > [məhən] > [mo:n] (colloquial) ;

[po:kum] *will go* > [po·um] > [po·m] > [pu:m] ;

[ʋʌrikʌjilla] *will not come* > [ʋʌruʋilla] or [ʋʌrilla] ;

[ʋʌnnəkoḷḷu'] *you may come* > [ʋʌnno:ḷu].

(iv) Sometimes by the side of voiced sounds, the [k] may become voiced into [g] or [ɡ] ;

[bɦəkən] *name of a giant* > [bɦəgən].

(v) English words with final [k] are naturalised in Malayalam with the [k] doubled and with the addition of a supporting vowel [ə], *e.g.*, *book* > [bukkə], *etc.*

(vi) [k] has a more palatal value when it comes in association with palatal vowels : *e.g.*,

[irikkjuka] *to sit* ; [mʌrəjkkuka] *to cover.*

2. [kh] is not an original Dravidian sound. The educated classes accurately pronounce this and other aspirates, but the uneducated peopl hardly make any distinction between [k] and [kh] or between [g] and [gɦ] : *e.g.*,

[ʋikhjɑ·təm] *celebrated* > colloquial [ʋikkjɑ·təm] ;

cf. [bɦɑ:gjəm] *luck* > Tamil [pɑ:kkjəm] ;

3. and **4.** [g] and [gɦ]. These sometimes change into [k] ine *tadbhavas* or modified Sanskrit words and in certain colloquial corruptions : *e.g.*,

[gə·ʋindən] *a personal name* > colloquially [ko:ntu] ;

[gɦʌnəm] *heaviness* > [kʌnəm] ;

[goa mɑ:mpʌṯəm] *Goa mangoes* > [ko:mɑ·mbəṯəm].

5. [ṭ] is a true cerebral or retroflex sound in Malayalam, as in other Dravidian languages. [ṭ] does not occur initially. Examples :

[kɑ:ṭə] *forest* ; [kəṭṭə] *knot* ; [pɑ:ṭə] *to sing* ; [pʌṭṭə] *silk.*

6. [ṭh] occurs in Sanskrit words, but is rarely pronounced accurately as an aspirate by the uneducated : *e.g.*,

[mʌṭhəm] *house* > [mʌṯəm], also [mʌḍəm].

7 and **8**. [ḍ] and [ḍ͡ɦ] occur only in Sanskrit words.

[ḍ] sometimes changes into [ɻ] in Malayalam: *e.g.*,

[sʌmraːḍ] *king* > [sʌmraːɻ] ;

[guḍikɑ] *pill* > [guɻika].

[ḍ] changes a following [ʌ] into [e], *e.g.*,

[ḍʌmbɦiəm] *pride* > [ḍembɦiəm].

9. [*t*] (i) This is a slightly more forward sound than the sound in English "enter", but does not approach the interdental [t]. It can therefore be described as an alveolar sound. The manner of articulation is also different from that of the dental [t], for the blade of the tongue is not spread out as for [t]. This sound never occurs initially or singly (except when it forms a conjunct consonant with [n]) : *e.g.*,

Mal. [en*t*ə] *my*; [kɑː*tt*ə] *wind* ; [vi*tt*ə] *having sold* ; cf. Tamil [c͡ɕen*t*ru] *having gone.*

(ii) The genitive ending of certain nouns, and the past participle endings of certain verbs are formed with [*tt*ə].

(iii) This sound is gradually disappearing from Tamil, while in Malayalam it may be said still to hold its own, as shown above. But colloquially, sometimes [tt] appears instead of [*tt*], although purists correctly utter the [*tt*].

[ellɑː*tt*ilum] *in all* > colloquial [ellaːttilum].

(iv) The symbol for this sound in Malayalam is a double [*r*] ; the reasons for the adoption of this symbol are rather complex, and a discussion of these reasons does not fall within the purview of this short sketch.

The following is a short poetic passage where [*tt*] occurs in profusion :

[kɑː*tt*um mʌɻəjum vəilum mʌɲɲum

eː*tt*uŋkoṇṭuṭʌnɑːtʌlinoːṭe

eː*tt*ʌmurʌkkəm mɑː*tt*i pʌric͡ɕotu

no:*tt*ukiṭən*n*uṭəneː*tt*əmirən*n*um.....]

The jewel that I have won after suffering the hardships of Wind, Rain, Sun, and Dew, after suffering the greatest amount of sleepless anxiety and hunger...

10 and **11**. [t] and [th]. (i) [t] is a pure dental plosive and not a fricative like English *th* as in "thin" [*θ*]. Many speakers of Tamil and Malayalam quite wrongly use *th* as the equivalent of [t] in writing names and words of their own language in English letters.

(ii) In the colloquial of the masses, the aspirates are not correctly pronounced, and voiced and breathed sounds are freely interchanged.

[c͡ɕoːdic͡ɕu] *asked* > colloquial [c͡ɕoːtic͡ɕu] ; [kʌtha] *story* > [kʌta].

(ii) Intervocal [t] in unaccented syllables sometimes becomes a fricative [θ], *e.g.*, [ʋɑ·til] *door* > [ʋɑ·θil].

English [θ] and [ð] are represented in Malayalam by [t] and [d].

Sanskrit final [t] is rendered in Malayalam by [l] instead of [t] : *e.g.*, Skt. [fiaṭhɑ:t] *immediately* > [fiʌṭhɑ·l].

(iv) Sanskrit [t] or [d] in conjunct consonants [ts] or [dm] are naturalised in Malayalam as [l] ; Skt. [ʋatse:] *dear* > [ʋʌlse], [pɑdma] *lotus* > [pʌlma] and sometimes [pʌlpʌ].

12. and **13.** [d] and [dfi].

These sounds change an immediately following [ʌ] into [ə] or [e], as already shown above : *e.g.*,

[dʌja] *pity* > [deja].

[ɑ:dʌrəʋə] *kindness* > [ɑ:dərəʋə].

[dfiʌnikən] *rich man* > [dfiənikən].

[dʌmʌjʌnti :] *Damayantī, a proper name* >[deməjənti].

Affricates.

14. 15. 16. 17. [c͡ʃ], [c͡ʃh], [ʄʒ] and [ʄʒfi]. (i) Orthodox grammarians classify these sounds as plosives, but they partake more of the spirant or continuant values of the affricates than of the exploding nature of plosives.

(ii) In Tamil [c͡ʃ] has only the value of a pure fricative [ʃ]: *e.g.*, [tricc͡ʃu:r] *Trichur* > Tamil [tiriʃʃu:r] [c͡ʃentɑ·mərəi] *red lotus* > [ʃentɑ·mərəi].

(iii) Initially, the single symbol has always the value of [c͡ʃ] but, otherwise the [c͡ʃ] easily becomes [ʃ] : *e.g.*

[ʋic͡ʃɑ·rikkjuka] *to think* > [ʋiʃɑ·rikkjuka].

(iv) A double sound [cc͡ʃ] is a pure affricate where the palatal plosive element is conspicuous, though there is no actual explosion.

(v) All the affricates, like the pure fricatives, change an immediately following [ʌ] into [ə] or [e] : *e.g.*

[c͡ʃʌŋŋɑ·ti] *friend* > [c͡ʃeŋŋɑ·ti] ;
[ʄʒʌjʌm] *victory* > [ʄʒejəm] ;
[pʌŋkʌʄʒʌm] *lotus* > [pʌŋkəʄʒəm] ;

Nasals.

18. [ŋ]. (i) This nasal does not occur initially or singly. It is always found doubled, or in combination with [k], *e.g.*, [ʋɑ:ŋŋuka] *to receive*; [ʋeŋkʌləm] *vessel.*

(ii) The tendency to nasalisation is one of those characteristics which distinguish Malayalam from Tamil; this tendency is very prominent in the sounds of both Sanskrit and native words: *e.g.*,

Tamil [vɑ·ŋgɯ] *receive* > Malayalam [vɑ·ŋŋə];

Sanskrit [ɑŋgɑm] *limb* > Malayalam [ɑŋŋəm]. In writing, the Sanskrit spelling is preserved.

(iii) The plural ending [kʌl], when it combines with the "anusvāra" = final [m] of a noun, becomes [ŋŋʌl];

[mʌrʌm] *trees* + [kʌl] > [mʌrʌŋŋəl] *trees*;

Tamil [peṇ] *girl* + [kʌl] > Tamil [peŋgʌl], but Malayalam [peŋŋəl].

(iv) In association with palatal vowels, the value of [ŋŋ] is "fronted" a little and a small glide [j] comes in between: *e.g.*, [pʌiŋŋa] *areca-nut*; [vʌɻutənəiŋŋa] *brinjals.*

19. [ɲ]. This is another nasal which is very prominent in Malayalam. This sound is absent in Tamil except when combined with [c͡ʃ], as in [kʌɲc͡ʃi] *gruel.* It is the prominence of this sound in Malayalam that makes Tamilians say [tʌmiɻɯ mu:kkɑ·le pʌreɲc͡ʃɑ·l mʌləjɑ·ḷəmɑ·kum] *Tamil uttered through the nose becomes Malayalam.*

(ii) Tamil initial [n] occurs as [ɲ] in Malayalam: Tamil [nɑ:n] *I* > Malayalam [ɲæ·n].

Tamil [næ·ttikkəɻəme] = Mal. [ɲæ·jerɑ·ɻc͡ʃa] *Sunday.*

A passage with many [ɲ] sounds:

[tʌŋŋʌliŋŋəne joro: vɑ:kkukəḷ ʌŋŋu pʌrəɲɲu *nirə*ɲɲæ·n pʌṭʌjiṭətiŋŋi jiṭəɲɲu *nʌṭənnu* tuṭəŋŋi.....].

The army collected itself in the midst of this mutual talk; and thick in crowded members, began to march along.

20. The cerebral [ṇ], the usual retroflex sound, does not call for any special remarks.

21. [*n*]. (i) This is a peculiar dental nasal in Malayalam and is the proper nasal representative of the [t] series.

(ii) Though there is a special symbol for [*n*] in Tamil, the accurate sound is not given to it; it is pronounced in the same way as [n]. In Malayalam, the sounds exist separately but, the same symbol is used both for [n] and [*n*], so that very often confusion arises as to the character of the sound to be given to the symbol: *e.g.*,

[*n*inna:nʌnəm *nʌnnə nʌnə*ɲɲə tuṭʌŋŋi] *your face well to become wet began.*

(iii) [*n*] appears singly only at the beginning of words, and consequently whenever the symbol appears at the beginning of words, the sound [*n*] is alone given to it.

[*n*ɑ·ja] *dog*; [*n*ʌrəkəm] *hell.*

Tamilians are ridiculed for mispronouncing [*n*] as [n].

(iv) In other positions of the sentence than the beginning of words, the sound is always doubled : *e.g.*, [ʋʌ*nn*u] *came*; [pʌ*nn*i] *pig.*

But not in all cases, *e.g.*, in [*n*innute] *your*: [kʌnni] *mouth*; [tɪnmɑ·n] *for eating*, the medial sounds here are [nn] or [n]

(v) As a general rule it can be stated that [*nn*] is always the sound which represents the Tamil group [nd] : *e.g.*, Tamil [ʋʌndɑ:n] *he came* = [ʋʌ*nn*u].

(vi) In the colloquial [*n*] changes sometimes into [ɳ] : *e.g.*,

e.g., [ʋʌru*nn*u] *comes* > [ʋʌrɳu] > [ʋʌɳɳu].

[ennɑ:rjəputrən ʋʌnəttinnu po:jɑ·l
pinnə puri·ʋɑ:səm entinnu ʋe:nti·
*n*innoṭu ku:ṭiṭṭə po:ru*nn*u ɲæ·num
e*nn*ɑ:l mʌno·ʃʒɲæ·ŋŋi (ʋʌidehi tɑ·num)]

If my lord (Rāma) goes to the forest, of what use is town life for me? I am also coming with you, my lord, said the beautiful Vaidehi (Sītā).

22. [n]. (i) is an alveolar sound, and should be distinguished from [*n*] as indicated above.

(ii) [n] does not occur initially in Malayalam.

Even Sanskrit initial [n] becomes [*n*] in Malayalam, as in [*n*ɑ:dəm] *sound.*

(iii) Along with cerebral sounds like [ṭ], the [n] changes into [ɳ] : *e.g.*, [kʌɳṭhəm] *neck.*

23. [m] occurs initially, medially and finally : *e.g.*, [mɑ:ŋŋa] *mango* [timirəm] *eye-disease*; [mʌrʌm] *tree.* This sound being one of the [c͡jillukəl] refered to above (p. 7), it can occur at the end of a word without the support of any vowel.

(ii) Intervocal [m] is very unstable in the colloquial, and changes into [ʋ], or sometimes disappears : *e.g.*,

[pʌrʌjɑ·mo] *can (he you or I) say* > [pʌrʌjɑ·ʋo] > [pʌrəjo·]

[pʌrʌjumɑ·jiru*nn*u] *would have said* > [pʌreja:r*nn*u].

Even in the literary language we have [dɦʌnʌm] *wealth* > + [um] *and* > [dɦʌnʌʋum] *and wealth.*

Compare Telugu [ʌʋənu] = [ɑ·mɑ·] *yes* (Tamil)

(iii) Sometimes [ʋ] gives place to [m] : *e.g.*,

[ɑ·ʋiɳi ʌʋuṭṭəm] *a day in Avini month* >[ɑ·miniɑ:ʋuṭṭəm].

24. (i) [j] is an alvolar fricative, and is fully sounded in correct speech, though in the colloquial dialects of some classes of people, it breaks up into [i] + [ʌ].

(ii) This sound belongs to the class of [c͡illukəḷ], and can stand alone at the ends of words: *e.g.*, [kaːj] *fruit*; [paːj] *mat*.

(iii) The strong palatal character of this consonant enables it to change an immediately succeeding [ʌ] into [ə] or [e]: *e.g.*,

[jʌʃʒəmaˑnən] *master* > [jeʃʒəmaˑnən] or [jəʃʒəmaˑnən];
[jʌʃəssə] *fame* > [jeʃəssə] or [jəʃəssə];
[paːjʌsʌm] *rice-milk* > [paːjəsəm];
[mʌtijaˑja] *sufficient* > [mʌtijæˑjə]

(iv) [j] and [ʃ] are sometimes interchangeable: *e.g.*,

[ʋijərpə] *sweat* > [ʋiʃərpə].

Cf. Tamil sing. [pʌjəl] *boy* > Tamil pl. [pʌʃəŋkəḷ] *boys*; Tamil [ʋaːʃikkə] *to read* = Mal. [ʋaȷikkuka]; Tamil [kʌʃʌppɯ] *bitter* = Mal. [kʌjppə].

(v) [j] appears as a glide to fill up the hiatus between two words: *e.g.*,

[ʋʌnna] + [aːl] > [ʋʌnnʌjaˑl] *the man who is come.*

(iv) Sanskrit conjunct consonants with [j] as the second component are correctly pronounced by the educated classes, but in the colloquial of the illiterate classes, corruptions arise: *e.g.*,

Skt. [sandfiaː] *night* > [sʌndfija] > [sʌndfii], or even [ʌnti] in the colloquial;

[sʌdja] *feast* > [sʌddi].

25, 26. [r] and [*r*]. (i) Both these sounds belong to the class of [c͡illukʌḷ], and can stand alone at the ends of words: *e.g.* [moːr] *buttermilk*; [taiɾ] *curds.*

(ii) [r] is an alveolar sound, while [*r*] is a cerebral: and this cerebral [*r*] is quite different from the so-called cerebral 'ṛ' of Northern India, which is a 'flapped' sound.

(iii) Initial [r] is a sound produced with one or two taps of the tongue against the teeth-ridge, but medial and final [r] is only a flap. [*r*] is a true retroflex sound and is slightly trilled.

(iv) When [r] comes before a guttural consonant and combines with it to form a conjunct consonant, the [r] becomes [*r*].

If [r] is the second component in a conjunct consonant, with the first component a voiced sound, the value of [r] remains [r]: *e.g.*,

[gɾaˑmem] *village*; [gfiraˑṇam] *smell*; [braˑmmənən] *Brahmin.*

When the first component is a breathed sound, the [r] changes into [ɾ]: *e.g.*,

[prʌmaˑṇəm] *proof*; [krʌndənəm] *weeping*; [maˑtrəm] *only*.

If [r] is the first component, [r] may become [ɾ] or may remain unchanged: *e.g.*,

[derʃənəm, dər-] *visit*; [derbfiʌ] *a kind of grass*; [maˑrdəvəm] *soft*.

(v) [r] and [ɾ] change an immediately succeeding [ʌ] into [ə] or [e]: *e.g.*,

[reŋgənaˑtən, reŋ-] *the proper name Ranga-nāthan*; [rəmbfia, rəm-] *proper name Rambhā*; [revə, rə-] *ground rice*; [retnəm, rə-] *gem*; [rebiˑndrənaˑtən, rə-] *the proper name Rabindranath*.

(vi) [r] or [ɾ] never occurs initially in a native Dravidian word. This can be seen from the way in which Tamil has tried to assimilate Sanskrit words: *e.g.*,

Sanskrit [raːʃʒaˑ] *king* > Tamil [ʌraʌʃən];
Skt. [raːtri] *night* > Tam. [irɒːvə];
Skt. [loːkah] *world* > Tam. [uləkəm].

In unaltered Sanskrit words the [r] is retained at the beginning in both Tamil and Malayalam.

(vii) [r] sometimes disappears in the colloquial when it occurs in unaccented syllables: *e.g.*,

[vʌrunnu] *comes* > [vʌrnnu] > [vʌrṇu] or [vʌnnu];
Tamil [paːrkə] *to see* > [paːkkə].

27. and **28.** [l] and [ɭ]. (i) [ɭ] is an alveolar, and [ɭ] is a retroflex, sound. Both belong to the class of [c͡ʃilukəl] : *e.g.*, [paːl] *milk* [ʌvəɭ] *she*.

(ii) [ɭ] and [ɻ] are interchangeable.

[ʌppoːɭ] *then* > [ʌppoːɻ]
[vaːɻəppʌɻəm] *plantain fruit* > [vaːɭəppəɭəm].

(iii) [ɭ] never begins a word, whereas [l] may.

These sounds can change an immediately succeeding [ʌ] into [ə] or [e] : *e.g.*,

[lʌta] *leaf* > [leta];
[lʌŋka] *ceylon* > [leŋka].

(iv) Sanskrit [ḍ] and [t] change into [ɭ] and [l] in Malayalam, when these Sanskrit sounds come at the end of words without the support of a vowel:

Skt. [sʌmraˑḍ] *king* > Mal. [sʌmraˑl];
[fiaṭhaːt] *immediately* > [fiaṭhaˑl].

(v) When [l] and [ɭ] combine with a succeeding nasal to form a conjunct consonant, especially in compounds, the character of these sounds changes into the corresponding alveolar [n] and cerebral [ɳ] respectively:

[nel] *paddy* + [mʌɳi] *grain* > [nenmʌɳi] *paddy grain*;

[veɭ] + [niːr] > [veɳɳiːr] *ashes.*

29. [v] and [ʋ]. (i) The true value of the Malayalam symbol [v] is the dento-labial fricative; but very often only the bilabial [ʋ] is uttered in actual speech.

(ii) [v] or [ʋ] occurring inter-vocally disappears: *e.g.*,

[ʌʋən] *he* in North Malabar dialect becomes [ʋəːn] > [oːn];

[poːkumo] *will go* > [poːkuʋoˑ] > [puˑʋoˑ] > [poː].

(iii) [ʋ] and [m] are easily interchangeable as already shown.

(iv) [v] or [ʋ] changes an immediately following [ʌ] into [ə] or [e]: *e.g.*,

[vʌra] *line* > [vera].

(v) In sounding conjunct consonants where [v] or [ʋ] forms the second component, purity of pronunciation is maintained only by the educated classes; *e.g.*, in the colloquial, we find alterations like

[guruttvəm] *grace* > [guruttəm] > [kuruttəm]

[viddɦiittvəm] *foolishness* > [viddɦiittəm].

(vi) [ʋ] appears as a guttural glide in connected phrases and in sentences where the proximity of two dissimilar vowels creates a hiatus, *e.g.*, [veɭutta] + [oruʋən] *fair-complexioned* > [veɭutta ʋoruʋən].

[ʋ] acts as a glide between back vowels, while [j] acts as a palatal glide.

30, 31, and **32.** (i) [ʃ], [ʂ] [s] are not interchangeable but are separately and distinctly pronounced. [ʃ] is an alveolar, [ʂ] is a cerebral, and [s] is also an alveolar where the fore-blade of the tongue is flattened out so as to allow more air to pass through with a sharp hissing noise than when [ʃ] is uttered.

(ii) [ʃ] and even [s] sometimes become [c͡ʃ] in the colloquial: *e.g.*, [ʃʌŋkərən] > *the* [c͡ʃʌŋkərən] *proper name Śankaran*; [sʌmʌjəm] *time* > [c͡ʃʌməjəm].

33. [ɻ]. (i) This is a sound peculiar to Tamil and Malayalam; the position of the tongue is exactly the same as for [ʂ] but the air is allowed to pass through without the hissing sound and, besides, the sound is a voiced one.

(ii) As already pointed out, [l] and [ɻ] are interchangeable.

A passage with [ɻ] : [miɻikəl vitʌrnnu vʌɻijilʌmərnnu ʌɻʌku kʌlʌrnnu kʌɻʌliɳə ʧe:rnnu].

34. [ɦ, h]. This velar fricative, usually voiced except in aspirates and interjectional exclamations, is difficult of utterance for Tamilians, and as already mentioned, it was absent amongst the old Tamil (Dravidian) sounds. With the introduction of Sanskrit sounds in the South, symbols also were newly formed for these new sounds, but the Dravidians admitted these sounds only after a struggle, for we see that the early Tadbhavas in Tamil from Sanskrit words containing [ɦ], all avoid this fricative and retain only the accompanying vowel or consonant sound : *e.g.*,

Skt. [ɦitam] > Tamil [idəm] *pleasure* ;

Skt. [mahɑ:de:və] > Tamil [mɑ:de:vən] *Mahādēva.*

(ii) In Modern Malayalam also, the [ɦ] is very unstable in the following instances :—

[vʌɦija] *not possible* > [vʌjja] ;

[bəhu] *great* > [bəu].

Sanskrit words with [ɦ], however, are clearly and accurately pronounced by scholars,

(iii) [ɦ] results from the corruption of [k] through the fricative [x] : *e.g.*, [mʌkən] *son* > [mʌxən] > [mʌɦən].

(iv) In conjunct consonants [ɦm] and [ɦn], the aspirate [ɦ] is sounded, if at all, only after [m] and [n], *e.g* ,as [mɦ]and [nɦ] ; but very often even in very correct speech, the [ɦ] may not be heard at all : *e.g.*,

[brɑ:ɦmmənən] or [brɑ:mmənən] *Brahman* ;

[ʧiɲɦəm] or [ʧiɲnəm] *sign.*

[ɦl] is uttered correctly in [ɑ:ɦlɑ:dəm] *joy.*

The unvoiced [h], as in English *hat, happy*, is found in Malayalam only in the unvoiced aspirates [kh, ʧh, ṭh, th, ph].

In the orthodox Malayalam alphabet, [kʃ], [rɯ] and [lɯ] are also included ; but [kʃ] is a conjunct consonant, while [lɯ] and [rɯ] (actually only the sonants [ɾ] and [l]) do not occur as such in Malayalam except in Sanskrit words. Thus—

[klɯptəm] or [kliptəm] *exact.*

[rɯ] and [lɯ] may be pronounced as [ri] and [li], or [ir] and [il], or as [ər] and [əl] :

[krɨʃɳən] or [kərʃɳən] or [kirʃɳən] *Krishna.*

Conjunct Consonants.

These occur only in Sanskrit words current in Malayalam. It is a boast amongst the Malayalis that they can pronounce words with conjunct consonants more accurately than the people of other parts of India. This boast is not entirely without justification, for those peculiarities of sound characteristic of the utterance of conjunct consonants in the Prakritic languages of North India, like Bengali, Hindī etc., are conspicuous by their absence in Malayalam. But nevertheless "impure" pronunciation of conjunct consonants does occur in the language. Thus—

Skt.		Mal.		Example.
[ŋg]	...	[ŋŋ]	...	[bʱiʌŋgi] > [bʱiʌŋŋi] *beauty*.
[nn̩]	...	[nn]	...	[gɔ:vindən] > [gɔ:vinnən] *Gōvinda*;
[ɳd]	...	[ɳɳ]	...	[mʌɳɖʌpʌm] > [mʌɳɳəpəm] *house*;
[ʃ̈ɲɑ·]	...	[ʃ̈ɲæ·]	...	[ʃ̈ɲæ:nʌm > [ʃ̈ɲæ·nəm];
[mb]	...	[mm]	...	[ʌmba] > [ʌmma] *mother*;
[dm]	...	[lm]	...	[pʌdma] > [pʌlma] *lotus*;
[vjɑ:]	...	[ve]	...	[vjʌsʌnəm] > [vesənəm] *sorrow*;
[tjɑ:]	...	[tjə]	...	[sʌtjʌm] > [sʌttjəm] *truth*.

(i) In transcribing the sounds of the Sanskrit conjunct consonants, I have proceeded on the assumption that the Indo-Aryan representative of modern Malayalam [ʌ] should have been, in the stressed syllables of words at least, [ɑ].

(ii) Accuracy of pronunciation requires that the components of conjunct consonants in Malayalam should be sounded together in one breath, as in the English words "crypt" or "breadth". Prof. Yogesh Chandra Ray remarks in his Bengali Grammar (published by the Vaṅgīya Sāhitya Pariṣad) that in Bengali certain conjunct consonants (especially those with plosives as their first components) are pronounced with a peculiarity that the two components are not pronounced together, but, as it were, with a slight break in the middle to enable the plosive to sound completely. For instance, Prof. Ray says that অগ্নি (ăgni) is uttered in Bengali as অগ্-নি [og-ni] and not as অ-গ্নি [o-gni], so that here the full explosion of the consonant is made. This difference seems to be significant, for in very lax enunciation of the conjunct sounds in the Bengali way, a short vowel might creep in between the first plosive and the consonant which follows it. In listening to a Calcutta Bengali uttering words like অগ্নি (ăgni), কাঁদলে (kădle) or

രത്ന (rătnă) in a lax manner, the sounds appeared to me to have the values of [ogɯni], [kădɯle] or [rɔtɯnɔ].[1] In Malayalam, however, no such thing is possible, and the pronunciation of the above-mentioned words is [ʌgni], [rʌtnʌm].

(iii) It should be remembered that only *Tatsamas* are given accurate Sanskrit sounds; there are many *Tadbhavas* in Malayalam which have got rid of the conjunct consonants: *e.g.*, [krɯʃṇən] > *Tadbhava* [kʌṇṇən] *the name Krishna*; [buddfii] *used in a good sense to mean "wisdom"*, > [putti] *"perversity", used in a bad sense*; [ʌʃuddfiəm] < [ʌittəm] *pollution.*

(iv) When conjunct consonants occur medially, the first component if it is a plosive, is doubled: *e.g.*,

[lʌkkʃmi] *name, Lakshmi*; [ɑ:pptəm] *suitable*; [pattrəm] *vessel.*

The doubling of the sound is, however, not always represented in writing.

(v) Doubling of consonants occurs in various other cases, the most important among which is that of certain plosives and affricates at the beginning of the second component in certain Samāsas or compound forms: *e.g.*

[c͡ʃʌkka] *jackfruit* + [pʌɻʌm] *ripe* < [c͡ʃʌkkʌppʌɻəm] *ripe jackfruit.*

Glides.

The glides in Malayalam are [j] and [ʋ] or [v], both being used for filling up the hiatus between vowels: *e.g.*

[pʌrʌ] + [illa] = [pʌrʌjilla] *will not say*;

[puɻu] + [illa] > [puɻuvilla] *there is no worm.*

These are examples of compounds or sense-groups. Even in sentence where words stand apart, these glides can come in rapid pronunciation. Sometimes the full [j] may not arise, but only [ĕ], as in the Bengali সে এল [ʃeĕelo] *he came.*

Sandhi.

Euphonic combinations are developed whenever two vowels or consonants come together, either within a word or when proximately standing in two different words. There is no hard and fast rule in Malayalam as to where the euphonic combination has to set in insentences, but an approxiamate rule may be formulted that wherever compounds of

[1] Dr. Chatterji thinks that there is no vowel glide perceptible although the stop is certainly fully exploded.

words convey together a definite common meaning there the laws of *Sandhi* can also operate.

The laws of *Sandhi* in Malayalam are various, and different in many respects from those of Sanskrit. A discussion of these laws is beyond the scope of this sketch.

General Observations.

Dynamic Stress.

The existence in all Dravidian of innumerable contracted forms is clear proof for the fact that dynamic stress of some character does exist in all Dravidian languages, including Malayalam. It may also be affirmed that the dynamic accent falls primarily on all root-syllables of words. Word-stress in Malayalam differs from that in North Indian languages, and in Standard Southern English, in three important respects:

1. Word-stress is not initial as in Bengali, German or English, but it invariably falls on the root-syllables of words. Secondary stress also exists in polysyllabic words, but is often denoted by pitch-variations.

2. Stress is always accompanied in Malayalam by a high pitch, and it is a moot point if dynamic stress exists in Malayalam independently of musical accent or intonation. Musical intonation in the colloquial is often strong enough to give a "timbre" to the speech as in the French language.

3. Word-stress in Malayalam is not so strong as in English, and, moreover, the existence of stress, in the literary languages, does not usually involve the slurring over of the other syllables, though very unstable consonants may change their character and long vowels may be reduced in length. In the common colloquial of the masses, elisions and contractions are more frequent than in the language of the literate classes.

Emphasis or Sentence Stress in Malayalam may be denoted either with the dynamic accent or the musical accent. It follows all the rules of the "logische Betonung" (logical stress) enunciated by Prof. Otto Behagel in his "Geschichte der deutschen Sprache". "Mechanische Betonung" is also possible in certain cases.

When a prose passage in the literary language is read out, there are distinct sense-groups forming breath-groups, but in the rapid use of the colloquial, the pauses disappear, and the sounds flow one into another, through not so swiftly as to produce what is called the French "liaison".

sa:dʱa:rəɳəja·j | *no*:kkumbo·ḷ || ʃindu *stri*:kʌḷkə || itilum ʌdʱikəm | sva:tən*tr*jəmuɳṭə ||. go:ʃa sʌm*prə*da·jəm || oru nijəməma·jiṭṭə || *n*ʌmbu:ri *stri*:kəḷ ma·*tr*əme— a:ʧʌriccʃəvʌru*nnu*ḷḷu· || = *ordinarily Hindu women enjoy greater freedom than this ; only the Nambudiri women are observing the* Gosha (Purdah) *system as a rule.*

Length of Vowels.

Correct pronunciation of Malayalam requires full length to be given to all long vowels, but in actual practice this scarcely becomes possible. Long vowels are fully enunciated in stressed syllables i.e. roots-syllables (ordinarily) ; but in unstressed syllables, the vowel may become half-long or completely short according as there is a pitch-distinction in the syllable or not.

In the pronunciation of Sanskrit words, scholars generally take care to observe the full length of vowels.

Special emphasis on a certain word or on any syllable of a word may lead to the lengthening of the connected vowel : *e.g.*,

[ʧa·ṭi: mʌʃi:*n*drən] *There leaped the king ;*

[vʌ*nnu*: ra:ʒʒa·və iviṭə] *Here came the king ;*

in the two above sentences [ʧa·ti:] and [vʌ*nnu*:], the two verbs, are specially emphasised, and the final vowels indicating the inflexional endings are accordingly lengthened.

Length of Consonants.

This is very common in Malayalam, and is known as [dvitvəm] or doubling. When sense-groups with grammatical affinities and with definite common meanings are formed, the first consonant in the second or the succeeding component (if any), when it is a plosive or an affricate, is doubled : *e.g.*,

[ma:mpʌɻʌ] *mango* + [ʧa·*r*ə] *juice* < [ma:mpʌɻəccʃa·*r*ə] "*mango-juice*" ; [a:ʃa·ri] + [pʌɳi] > [a:ʃa·rippʌɳi] *carpentery.*

(ii) In verbal compounds also, doubling may occur : *e.g.*,

[ʧa:ṭi] *leaping* + [kʌṭʌ*nnu*] *crossed* > [ʧa:ṭikkʌṭʌ*nnu* *leaped across.*

[o:ṭi] + [po:i] > [o:ṭippo:i] *ran way.*

(iii) Even in sentences where sense-proups are formed, doubling may occur : *e.g.*,

[ellumurijeppʌɳita:l pʌllumurijettinna:m]

from [ellu murije pʌɳita·l pʌllu murije tinna:m]

If one works so hard as to break one's bones, one can eat till one's teeth are broken.

(iv) Doubling of consonants may in some cases be represented in writing, in other cases not.

(v) Doubling of the first plosive element of conjunct consonants may also occur as shown above.

Intonation.

Intonation is very prominent in the colloquial where the variations are many and picturesque. Malayalis cannot easily get rid of this native intonation which often affects even the English speeches of educated Malayalis.

Differences of pitch sometimes indicate differences in the feelings of the speaker ; [ʋʌnnuʋo·] may be intoned in at least three different ways which would separately indicate a query, surprise, or satisfaction on the part of the speaker.

Assimilation.

Assimilation of both the progressive and the regressive types exists in Malayalam. The scope of this short sketch precludes any detailed discussion of the various laws. A few examples are alone given below.

Progressive (or the first sound influencing the second):—

[kʌɳ] *see* + [tu] past inflexional ending > [kʌṇṭu] *saw*; [ʋil] *sell* + [tu] > [ʋittu] = *sold*

Regressive: [ʋʌrum] *for coming* + [ka:lʌm] *time* > [ʋʌruŋka:lʌm] *time for coming*; [ʤa:ṭum] + [to:rum] > [ʤa·ṭuṇto:rum] *in leaping.*

Dialects.

The dialects of Malayalam vary not only with the districts but also with the different communities inhabiting Malabar. For instance, the colloquial employed by a Christian of the Cochin State is different from that current amongst the superior Hindu castes of the State, whose language again widely differs in sounds, into nation and forms from the dialectal Malayalam of the 'submerged' classes. No colloquial dialect of Malabar has yet attained importance or popularity sufficient to entitle it to receive recognition as a proper vehicle of literary thought. Some of the reasons that stand in the way of such a healthy consummation are (i) the large the number of colloquial dialects, (ii) the multifarious

elisions and contractions in each dialect, (ii) the lack of any uniformity whatsoever in colloquial forms, and (iv) last but not least, the want of a central unifying force as that supplied by a cultural centre or by the existence of literary excellence in any one of the dialects. So long as those influences, that have coöperated to make the Calcutta colloquial (or the West Bengal dialect) a popular literary language in Bengal, are absent in Malabar, no colloquial dialect can find itself elevated to a position of literary prominence in that part of India.

General.

There are certain phonological peculiarities in Malayalam which mark off this language from the parent Dravidian, many of the characteristics of which are still retained by modern Tamil. A study of these might furnish us with a clue to what is called by Sweet "the basis of articulation" * of Malayalam, as distinct from that of Tamil and of other modern Dravidian languages. The phonological peculiarities may be classified under the following main heads :—

1. The tendency to nasalisation is very strong in Malayalam, as a result of which [ŋ], [ɲ], [ⁿ] [ⁿ̣] have assumed greater prominence in Malayalam than in the other Dravidian languages.

2. The development of mixed vowels in Malayalam, like [ə] is another distinguishing characteristic. The tongue is kept in a neutral position to a greater extent than in Tamil where especially the vowels are purely back vowels. The fact that Malayalam tolerates [a] at the ends of words while Tamil invariably has [ɯ] or [əi], is itself a result of this trait.

I shall now give below phonetic transcriptions of passages in Malayalam prose and poetry. The sounds given here represent the pronunciation of the natives of the Cochin State.

PROSE.

I. poːliːsəkaːrən ʃʒejicʃu.

vaːtə piṭicʃaːl toːlpippaːn ʌsaːddhijəmaːja oru poːlisəkaːrənuṇṭaːjirn*nn*u. ʌvene kollʌttə*nin*num koːṭṭəjəttekkə maːṯṯijʌppoːḷ kolləm inspekṭər koːṭṭə-

* "Every language has certain general tendencies which control its organic movements and positions, constituting its organic basis of articulation. A knowledge of the organic basis is a great help in acquiring the pronunciation of a language."—H. Sweet, *Primer of Phonetics*, § 184.

jəttə inspekʈərkkə aːpoːliːsəkaːrən bəhu sʌməʳthənaːɳənnum vaːtə vecʃaːl ʌvene ʃʒejikkuvaːn ʌrkum tʌnne prəjaːsəmaːɳənnum eɻuti ʌjecʃirunnu. oru divəsəm ʌvən koːʈʈəjəm inspekʈʈərə kaːɳaːn ʃennəppoːɭ ʌddeːfiəm ʌjaː-ɭoːʈə "entaː iviʈə vʌnnətil pinne vaːtil onnum ʃʒejicʃille ?" ennə ʃoːdicʃu. "ʃʒejippaːnonnum prəjaːsəmillaː; pʌkʃeː veːɳɖənnə vecʃə miɳʈaːtirunnətaːɳə" ennə ʌven uttʌrəm pʌrʌɲɲu. "aːkeʈʈeː ennoʈə vʌllʌtum vaːtə vecʃə neːʈaːn (nsːʈaːn) kʌɻijumoː ?" ennə inspekʈər ʃoːdicʃu. "kʌɻijum" ennə poːlisəkaːrən mʌrupʌʈi pʌrəɲɲu. reɳʈuruppikə (-xə) viːtəm vaːtə niʃʃəicʃə inspekʈʈərute toːɭil ninnə renʈʌɲɲuləm taːɻe oru kʌrutta kʌla uɳʈə" ennə poːlisəkaːrənum, "illənnə" inspekʈʈərum vaːdicʃu. uʈən tʌnneː poːlisəkaːrənoːtə ʃʒejikkeːɳəmənna vaːʃijinməl inspekʈər uʈuppʌricʃə ʃʌriːrəm kaːɳicʃu. pʌrʌɲɲətə poːle kʌla kaːɳaːɲɲətinaːl aː vaːtil poːliːsəkaːrənnə ʃʒejəm kiʈʈijilleŋkilum ʌtineːkkaːɭ vʌluːtaːja oru viːrəvaːdəttil ʌppoːl tʌnne ʌjaːɭkə ʃʒejəm kitti. entənnaːl taːn inspekʈʈərə onnaːmətai kaːɳunna divəsəm ellaːvʌruteːjum mumpil vecʃə ʌddeːfiəttinekkoɳtə ʌddeːfiəttinte uduppə ʌɻippikkiaːm" ennə pʌntrəɳtə ruːpa kʌraʳrinməl ʌjaːɭute ʃəŋŋaːtimaːroːtə mumpə tʌnne ʌjːal oru vaːtə niʃʃəjicʃirunnu. ʌtil ʃʒəjicʃʌtə koɳtə ʃəŋŋaːtimaːroːte pʌntrəɳtə ruːpa vaːiŋŋecʃə ʌtil rəɳtə ruːpa inspekʈʈərkkə koʈəttə baːkki pʌttɯ ruːpa ʃeːppilittə koɳtə poːkəjəm ʃəjtu.

Literal Translation.

The Policeman Won.

There was once a police constable whom it was impossible for any man to beat in any wager or bet. When he was transferred from Quilon to Kottayam, the police inspector of Quilon had written to the Kottayam inspector that this constable was an ingenious fellow and that it was difficult for anyone to beat him in a wager. One day when he went to see the Kottayam inspector, the latter asked him, "Have you not been able to win in any wager since your arrival here?" "To score a triumph in betting is not in the least difficult for me, but I was only indifferent to it for some time past," replied the constable. "All right!" said the inspector, "can you score a triumph over me?" "I can" replied the policeman. The constable then betted for a prize of two rupees that there was a big mole on the inspector's body two inches below his shoulder, which the inspector stoutly denied. Thereupon the inspector, resolved to corner the constable at once, took off his upper garments. Though the policeman had to own discomfiture in this wager, he happened to triumph in a greater wager; for he had

already betted with his companions for a prize of twelve rupees that he would make the inspector take off his dress in the presence of all on the occasion of his first visit to him. Now that he won the prize in this wager, he received the sum from his companions, paid down two rupees to the inspector, and triumphantly walked away with the balance of ten rupees in his pocket.

Notes on the Transcription.

1. It will be noted that complete length of vowels is preserved in all root-syllables. Half-length indicates that the syllable, though not having the primary stress, is distinguished in some way (i.e. secondarily) by means of pitch.

2. In the numeral adjective [pʌ*ntr*əɳʈə], [reɳʈə], [pʌttə] = *twelve, two, ten*, the last vowel in rapid reading may not sometimes be [ə], but [ɯ] or [u]; so also is the vowel in the second syllable of [koʈə(ɯ)tə] *having given*; [vʌlə(ɯ)tɑ·ja] *big*.

3. [ʌ] at the end of Malayalam words standing singly (i.e. not combined in sense groups) has always a more open value approximating to [a]. I have indicated this in the transcription in words like [kʌla] *mole*, [ru:pa] *rupee*, [vʌlɯta:ja] *big*, etc.

II. vʌʈəkkən ka:*tt*um su:rjənum.

vʌʈəkkən ka:*tt*um su:rjənum ʌvər reɳʈɯpe·rilum vecc͡ʃə ɑ:ra·ɳə ʌdfiik[x]əm ʃʌkti(j)uḷḷəvənə*nn*ə tʌ*r*kic͡ʃə koɳḍirikkjumbo·ḷ c͡ʃu:ḍuḷḷa oru kuppɑ·jəvum iʈʈɯɲkoɳʈə oru vʌɻija:tt*r*əkkɑ·rən ʌviʈə vʌ*nn*u. ʌvəril ɑ:r ɑ:djəmɑ·i vʌɻija·tt*r*əkkɑ·rənəkkoɳʈə tʌn*t*e kuppa:jəm eʈuppikku*nn*uvo·, ʌvən mʌ*tt*əvənəkkɑ·ḷ ʌdhik[x]em ʃʌktimɑ· nɑ·ɳə*nn*ə vic͡ʃa:rikkjəppətɑ·ɳə-mə*nn*ə ti:*r*cc͡ʃəjɑ·kki. vʌʈəkkəm ka:*tt*ə ʌppo·ḷ ɑ:vu*nn*e·ʈʈo·ḷəm ʃʌktijo·tu[ɯ]ku·ʈi vi:ʃi. pʌkʃe ett*r*əttoḷəm ugrʌmɑ·j vi:ʃijo· ʌtt*r*ətto·ḷəm ʌdhik[x]əm kuppɑ·jəʈe vʌɻija:tt*r*əkkɑ·rən de:fiʌttil vʌriɲɲə. ketti. oʈuvil vʌʈəkkən ka:ttə ʃrəməm ʌsɑ:ddfijə*nn*ə ve·ɳʈə*nn*ə vecc͡ʃu. pinne su:rjən c͡ʃu:to:tu[ɯ]ku:ti p*r*əkɑ:ʃic͡ʃa uʈəne· vʌɻija:tt*r*əkkʈ·rən tʌn*t*e kuppɑ·jətte eʈuttʌtu(ɯ)koɳʈə ʌvəriruvərilum vecc͡ʃə su:rjənɑ·ɳə ʃʌktimɑ:nə*nn*ə vʌʈəkkən ka:*tt*inə sʌmmʌtikkeɳʈi vʌ*nn*u.

The North Wind and the Sun.

The North Wind and the Sun were disputing which was the stronger of the two, when a traveller came along wrapped in a warm cloak. They agreed that whoever among them would be able to make the traveller take off his cloak would be regarded as stronger than the other. The North Wind

then blew with all his might, but the more he blew the more closely did the traveller wrap his cloak around him. Finally the North Wind gave up his attempt as impossible. Then the Sun rose and shone warmly, and the traveller at once took off his cloak, and the North Wind had to acknowledge that the Sun indeed was the stronger of the two.

Poetry.

I. The following is a phonetic transcription of the first stanza of a Malayalam adaptation, by an eminent Malayalam poet, of the majestic National Anthem of India by Rabindranath Tagore, the জন-গণ-মন-অধিনায়ক জয় হে ভারত-ভাগ্য-বিধাতা 'jana-gaṇa-mana-adhināyaka jaya hē bhārata-bhāgya-vidhātā' :

ʃʒejikkə ʃʒənəmʌnoːneˑtaˑveˑ, ʃʒejikkə niˑ !
ʃʒejikkə bʃiaˑrʌtoːrviˑbʃiaːgjəttin vidʃiaːtaːve !
mʌɲɲʌɳiɲɲitum giri puŋgʌvən tʌnnil *ninn*um
mʌɲɲuḷətʌrəmaˑja mʌləjaˑdrijil *ninn*um
ʌntʌriˑkʃətteja·kə ʃuddʃiʌmaːkkijuŋkoṇṭə
po*n*ti *n*ilku*nn*u *nint*e puṇjəmaˑm tiru*n*aˑməm !
*n*iːlima təlijuⁿna kaːlʌ*nn*iˑʃʒələttilum,
paːlinoṭokkum divjə ʃʒaːnnʌviˑpʌjəssilum,
tirəmaːləkəḷ tʌllijaˑrkku*nn*a kʌtʌlilum,
tirəḷu*nn*untə *nint*e puṇjəmaˑm tirunaˑməm.
ʌttiru*n*aˑmettiŋkəl ppʌɲʧaːbum sindʃiu taːnum
ʌtt*r*əjumʌlla vʌŋgə kʌliŋgə ʧoḷaːdijum
sʌttvərəmuṇə*rnn*u*n*in divjə gaːthəxəḷ paːti-
jottorumicʧu *nint*ejaˑʃissinʌrthikkju*nn*u !
ʃʒejikkə sʌrvə bʃiʌvjə daːtaːveˑ, ʃʒejikkə *n*iˑ !
ʃʒəjikkə ʃʒənəmʌnoː*n*eˑtaˑveˑ, ʃʒejikkə *n*iˑ !
ʃʒejikkə bʃiaˑrʌtoˑrviˑbʃiaːgjəttin vidʃiaːtaˑveˑ !

Literal Translation.

Victory to thee! Ruler of the minds of men! Victory to thee
Victory to thee! Builder of India's destiny!
On lordly snow-covered mountain crests
And in the sweet-blowing mountain-breeze,
Purifying all hearts,
Ever stands high thy hallowed name!
In the dark waters of the Yamunā river,
In the divine milk-white Gaṅgā stream,
And in the wave-stirred seas

Thy hallowed name ever surges and rolls !
Hearing thy hallowed name, Panjāb and Sindhu,
Nay, Vaṅga, Kaliṅga, and Choḷa,
Wake up, and singing sacred songs in unison
Seek for thy blessings !
Victory to thee, Distributor of gifts ! Victory to thee !
Victory to thee, Ruler of the people's minds ! Victory to thee !
Victory to thee ! Builder of India's destiny, Victory to thee !

II. The following passage is a translation of the poet Tagore's poem in শিশু 'Śiśu' (*The Crescent Moon*, in English) beginning with the lines খোকা মাকে শুধায় ডেকে 'khokā mā-kē śudhāy ḍēkē' :

eŋŋunna:ɳʌmme· ɲæ·n vʌnnʌtu ʧolge *ni* !
jeŋŋine kʌivʌʃəma:kkijənne· ?
o:mʌne ma·mʌkəmo·fiesʌrvəsvənaj *ni*· mʌmʌ ma:riloḷiccʃirunnu !
ma:mʌkə ʃʌiʃəvə le:khənəttiŋkələn pa:vəkəḷkkuḷil *ni*· va:ɳirunnu !
mʌɳɳu koɳṭiʃvərəvigrʌfiəm ti:rtu ɲæ·n tiɳɳʌm kʌḷiccʃu vʌḷʌrnnə ka:lʌm,
ennuɳɳi! ɲænʌɻka·rnnu recʃiccʃʌtum *ni*nnute vigrʌfiəma:jirunnu !

Literal Translation.

" Tell me, mother dear, whence did I come,
How didst thou possess me ? "
" Darling mine, thou lay'st concealed in my heart
crown of all my sweet desire !
Thou layst hidden in the dolls with which I as a baby played,
And at the time when with clay I made the image of my childhood's God,
It was thy form that I shaped with surpassing beauty dowed ! "

III. The following is the transcription of a conversation in Malayalam in the very rapid style :

1.	evițunno· ippʌm ?	1.	*Where are you coming from ?*
2.	vi:ṭṭinnɯ tʌnne.	2.	*Of course from (my) home.*
3.	vi:ʃe:ʃicʃo: ?	3.	*(Anything) particular ?*
4.	pʌɻe: ʃʌnijʌn tʌnne·.	4.	*The old, old trouble !*
5.	kʌkʃippiɳəvum ko:rṭumʌlle· ?	5.	*Quarrelling and courts, eh ?*
6.	ʌlla:ɳṭɯ pinne· !	6.	*What else but that !*
7.	ko:rṭil vʌlla mʌjəvumuɳṭo· ?	7.	*Any good out of it ?*
8.	ella:m kuɳṭəmai	8.	*Everything has ended disastrously*

Below is given the literary form of the above :—

1. evițe ni*nn*aɳippo:ḷ vʌru*nn*ʌtə ?
2. vi:ṭṭil *ninn*ə tʌnne·.

3. vɪʃeːʃeccʃə kaːrjəməntaːɳə ?
4. pʌɻʌja upʌdrəvəm tʌnneˑ.
5. kʌkʃippiɳəkkəttaˑluḷḷa korṭṭə vjəvəɦaˑrəm tʌnne ʌlleˑ ?
6. ʌllaːte pinne entaːnə !
7. koːrṭil ʃʒejəmaːrgəm vʌllətumuɳṭoˑ ?
8. ʌtokkeppoiˑ.

Educated Malayalis of Cochin state would carry on the above conversation in the following way :—

1. evɪṭɯnnaˑ ippoːḷ vʌrɳətə ?
2. viːṭṭɪnnɯ tʌnneˑ.
3. viʃeːʃiccʃə vʌlla kaːrjəvumuɳṭoˑ ?
4. pʌɻjə upədrəvəm tʌnneˑ.
5. vjəvəhaːrəvum kuːṭṭəvumʌlleː ?
6. ʌllaɳṭɯ pinnejoˑ !
7. koːrṭil vʌlla guɳəvumuɳṭoˑ ?
8. jaːtonnuˑvilla.

Tabular Representation of the Sounds of Malayalam.

Consonants

	Lip with		Teeth with	Upper Gums with			Palate			Glottal Region
	Teeth	Lip	Blade	Fore Blade	Tip	After Blade	Front	Middle	Back	
Plosives		p, b	t, d	s, z	ṭ		kʲ,c	ṭ, ḍ	k, g	
Affricates						c͡ʃ, ɟ͡ʒ				
Nasals		m		ṉ	n	ɲ		ṇ	ŋ	
Laterals					l			ḷ		
Trilled					r			ṛ		
Fricatives	f,v	F,ʋ	θ,ð		ʃ,ʒ	j		ʂ, ɻ	x, ɣ	h, ɦ

Vowels

	Front	Central or Mixed	Back
Close	i		ɯ, u
Half-close	e	ə	o
Half-open	ɛ, æ		ʌ, ɔ
Open		a	ɑ

Problems in Ancient "Egyptian" Chronology.

(Revised and Enlarged)

A SOLUTION.

BY

H. BRUCE HANNAH.

In his *History of Egypt*, Vol. II, p. 32, Professor W. M. Flinders Petrie sets out what purports to be a list of reported Feast-dates connected with divers Sōthic-Risings as recorded by priests apparently flourishing in that comparatively recent age when KHEM of the ancient ROMIU, after a period of influences originating from Mykenæ, had become transmuted into Hellenized EGYPT. In this list we do not get the original reports, perhaps not even the actual Egyptian records—only an attempted reproduction of them. In certain respects (*e.g.*, where the list departs unwittingly from what may not unreasonably be deemed a scientific arrangement), it is a very muddled performance, being obviously the work of some one who had failed to realize the fact that the original reports were constructed on a definite basic plan. One hesitates to think that the Egyptian priests, from whose archives the notes appear to have been extracted, were equally undiscerning.

To speak plainly, however, this archæological curiosity—quite apart from its own imperfections—has completely baffled *everybody*. To this day no one has been able to make head or tail of it; no one can see any good—any possibilities—in it. One thing alone is recognised. Sōthic Risings, it is repeatedly urged, are *annual occurrences*, though of course, after a long

but definite interval, some particular Rising marks the end of one Sōthic-Cycle and the beginning of another, and may therefore be described as epochal. But the Risings, the Feasts for which have been reported in this extraordinary manner, come under neither of these two heads! Hence the pathetic plaint on every side that, from this mysterious list, it is impossible to discover on what principle, if any, the reporting priests selected *these particular calendrical data*—the 7th, the 14th, the 21st, and the 28th of the month—with, however, a quaint occasional lapse into the 9th, the 22nd, the 29th, or the 1st—rather than any of the innumerable others, seemingly just as important and suitable, that were available!

Again, a perpetual stumbling-block for all interested in Egyptology—specialists not excluded—has been the meaning of, and the practical importance attached in the remote past to, what are known as the *Sed* and *Henti Heb*-periods. Says George St. Clair—

"That there was a thirty-year celebration, called the Sed festival, is evident in the inscriptions; but the Egyptologists have hardly known what to make of it. Erman says, 'The day of a king's accession was kept as a yearly festival, and celebrated with special splendour on the 30th anniversary.' Naville in his *Osorkom* takes the same view; and Brugsch also speaks of the thirty years' jubilee of Rameses II. But this can hardly have been all that is meant, and is more likely to have been a secondary celebration modelled on a great one. On an obelisk of Queen Hatshepsu's, at Karnak, we read—She has celebrated in honour of Amen the first Sed festival. Naville is puzzled, because on no supposition can he make this celebration to have taken place later than the 16th year of her reign (not the 30th). Besides, we may remark that she holds the feast in honour of her god, and not as her own jubilee" (*Creation Records*, p. 279).

Then, after referring to the ideas of Brugsch and Gensler, St. Clair proceeds—

"Our own suggestion is simpler and at the same time more adequate, for the periodical insertion of a 14th month would be easy, and a 30-day festival every 30th year would be an event to look forward to in every generation, while the kings would be very likely to mark their own 30th

year by imitative celebrations".....“Every fourth Sed festival would require to be treated as a leap-year, and have two months intercalated instead of one, and then the arrangement would work as well as the Julian Calendar before Pope Gregory's rectification. The Egyptians actually had some festival recurring at intervals of 120 years" (*Ib.*, p. 280).

Something was no doubt done to supplement the inadequacies of the 360° Spheroid (which was about $5\frac{1}{4}$ days shorter than the Natural Year), and that something appears to have been ingeniously turned into legendary form, and even eventually spiritualized, by the priests; but, in what we know of ancient Romic history, there is no evidence, so far as I am aware, that the Calendar was ever manipulated in the way here suggested by St. Clair. The 120-years, Festival that he refers to was the spheroidal *Henti-Heb* just about to be explained, and, like every other spheroidal *Heb*, it fell into place quite naturally, without any such periodical modifications as those proposed.

Writing as recently as 1914, Dr. E. A. Wallis Budge refers to certain "Re-birth" mysteries (the passing of a corpse through a bull's skin[1]) whereby the Pharaoh was supposed to receive a fresh lease of life and strength—though I doubt whether that was really the underlying meaning; and he (*i.e.*, Dr. Budge) does not hesitate to say that "The performance of these ceremonies was the sole reason for the celebration of the Set Festival" (*A Short History of the Egyptian People*, p. 29). Comment seems unnecessary.

Professor Petrie thinks that these *Hebs* were "at fixed astronomical dates, and not dependent on the years of the reign." The second part of this statement is unquestionable. But, as regards the first part, the idea it conveys, though not altogether wrong, is also not exactly right. Undoubtedly the Feasts set forth in Petrie's Report-List were held in

[1] *Note.*—Compare the idea of the Pygmies in Africa that, after death, a man's body enters a Great Serpent—a conception that the Romiū themselves once entertained in connection with the defunct Rā, who, they held, was subsequently re-born in spiritual form in a double cave on an island in a lake.

connection with certain Sōthic-Risings. But what *kind* of Sōthic-Risings? Sōthic-Risings were annual events. Also, one such Rising occurred at the end of each Sōthic-Cycle, and may therefore be called epochal. These reported Feasts, however, were in connection with Sōthic-Risings that were neither annual not epochal! True, the Risings actually selected for report were "astronomical" phenomena. True, also, they were "fixed." But in what sense—apart from the fact that they were annual, and might or might not be epochal? In the sense that their importance for purposes of selection depended on the expiration-point of certain periodal divisions of the 364° Spheroid regarded as a Cycle of 1456 spheroidal years. In the Report-List, the calendrical data—spaced out at regular intervals (7 spheroidal days, or 28 spheroidal years) which are really periodal divisions of that character—confirm this. They show that the particular annual Feasts reported were reported because of their organic relation to what turn out to be spheroidally based stretches of Time—periods known to the Romiū as *Sed*-periods, and (in connection with their original 360° Spheroid), commonly called "Thirty Years' periods." Moreover, the "Sed festival of Sirius' rising" which, in his *History of Egypt*, Vol. I, p. 131, Petrie speaks of as having taken place in the 2nd regnal year of Mentu-hetep II (now stated to have been Mentu-hetep IV) of the Eleventh Dynasty, is not included in the Report-List. Possibly calendrical data for it were wanting.

Again, in his *History of Egypt*, at pp. 38 and 39, Professor Breasted of Chicago University, speaking of the Pharaoh's attire on ceremonial occasions, says—

"He wore...and a simple garment suspended by a strap over one shoulder, to which a lion's tail was appended behind.".....

Then, as regards the Crown Prince, Professor Breasted adds—

"On the thirtieth anniversary of his appointment by his father as crown-prince to the heirship of the kingdom, the king celebrated a great jubilee called the 'Feast of Sed,' a word meaning 'tail' and perhaps commemorating his assumption of the royal lion's tail at his appointment thirty years before."

All this about "lions" and "tails" is possibly based on a modicum of fact representing historical evolution; but, as an explanation of the words *Sed* and *Henti*,[1] in connection with the scientific recording of Time, it is unsatisfactory, and leaves one still wondering.

Be it remembered that the ancient Romiū were familiarly acquainted with the ceaseless circling of the northern heavens (particularly Ta-Urt and her "7 Glorious Ones") round the Pole-star for the time being—giving rise, as they deemed, to a sort of Cosmic Clock, originally consisting of 360°. Of this the last representative was and still remains the constellation called by them *Anpū*, and by the later Egyptians *Anūbis* (the Jackal=Cynosura=our "Little Bear"), depicted as attached by the tip of its tail to Polaris, round which it swings in the course of every 24 hours—thus, by its position in the heavens, indicating the time of the day and night, the seasons of the year, and doubtless also, approximately, the stage reached by the Cycle, which used to be one of 1440, 1456, 1460, or 1461 spheroidal years, according to the particular Spheroid in vogue, whether of 360°, 364°, 365° or 365¼°. It is here—in connection with these artificial calendrical Spheroids, and their divisions—that we begin to get an inkling of the real significance, from a chronological standpoint, of the terms *Sed-Heb* and *Henti-Heb*.

The various Calendrical Year-forms from time to time in vogue amongst the ancient Romiū, may be divided up spheroidally into Days, Rising-periods, *Sed*-periods, and *Henti*-periods, thus—.

The 360° Year (The "Unity" Spheroid)—

360	periods of	1	(the Spheroidal Day).
90	„	4	(4 Spheroidal Years, during which Sōthis rose annually on the same date.)

[1] *Note.*—The correct transliteration of these expressions would seem to be either *Set* and *Henti*, or *Sed* and *Hendi*.

12 periods of	30	(days of the month; but also, taken as spheroidal years, representing the *Sed-Heb* period for this Spheroid).
4 „	120	(Quadruple *Sed*-period, or *Henti-Heb*).

N. B.—360 × 4 = the Cycle of 1440 spheroidal years.

The 364° Year (perhaps Luni-Osirian)—

360 periods of	$1\frac{1}{90}$
90 „	$4\frac{4}{90}$
13 „	28
$3\frac{7}{28}$ „	112

N. B.—364 × 4 = the Cycle of 1456 spheroidal years.

The 365° Year (Sothic)—

360 periods of	$1\frac{1}{72}$
90 „	$4\frac{1}{18}$
12 „	$30\frac{5}{12}$
3 „	$121\frac{2}{3}$

N. B.—365 × 4 = the Cycle of 1460 spheroidal years.

The 365¼° Year (Younger Horus)—

360 periods of	$1\frac{7}{480}$
90 „	$4\frac{28}{480}$
12 „	$30\frac{7}{16}$
3 „	$121\frac{3}{4}$

N. B.—365¼ × 4 = the Cycle of 1461 spheroidal years.[1]

Sed or *Set*, in fact, simply means 30 years, as *Hunti*, or *Henti*, simply means 120 years—but with reference only to the original old 360° Spheroid.[2] In connection with that Spheroid, and as chronological terms, *Sed* and *Henti* stand respectively for 30 and 120 spheroidal years; in connection with the 364°, or

[1] *Note.*—All this must now be read subject to grave doubts as to whether St. Clair's views were quite sound. Everybody does not confirm him as regards his conception of the various regimes and the order in which they occurred. For instance, the days of the 364° spheroid may not be associable at all with the so-called Luni-Osirian regime.

[2] *Note.*—They were Time-divisions. As mere numerals, 30 and 120 were expressed otherwise.

(perhaps) Luni-Osirian, Spheroid, they stand for 28 and 112 spheroidal years; in connection with the 365° or Solar-Osirian Spheroid, for $30\frac{5}{12}$ and $121\frac{2}{3}$ spheroidal years; and in connection with the $365\frac{1}{4}°$, or Solar-Horus, Spheroid, for $30\frac{7}{10}$ and $121\frac{3}{4}$ spheroidal years.

In short, as periods of years, the *Sed* and *Henti* were nothing but specific spheroidal divisions; and as such, they varied in length with the exclusive structural character of the particular Spheroid—whether of 360°, 364°, 365°, or $365\frac{1}{4}°$—which happened for the time being to be in vogue in Khem for calendrical purposes.

All other alleged meanings of these terms, *Sed-Heb* and *Henti-Heb*, when not merely fanciful, and if not wholly baseless, are, from the standpoint of chronology, of an importance only secondary and incidental to the meaning above set forth

No doubt—as, for instance, during the reign of Rāmēsēs II—Royal Jubilees of sorts were indulged in. Some, or all, of these may even have been modelled on the great 30-year Panegyry, or Festival, of the 360° Spheroid; nevertheless, they were not genuine *Sed* and *Henti Hebs*, organically related to the Spheroid as specific integral parts thereof. Of such real *Seds* or *Hentis* Rāmēsēs II celebrated two—(1) a *Sed* which fell in his 8th regnal year, B. C. $1264\frac{10}{10}$; (2) another *Sed* in his 38th regnal year, B. C. $1234\frac{3}{10}$; each of which is on my General List of *Hebs*. The *Henti-Heb* for B. C. $1203\frac{360}{480}$—which has also been ascribed to him—really fell in the year after his death, *i.e.*, the 2nd year of his successor, Merenptah. These are also "Clinch"-dates, or "Key"-dates, and, as such are useful for adjustments in and around this period. All other alleged celebrations in Rāmēsēs II's reign must have been special occasions, or perhaps vanities personal to himself.

From time to time, in the course of their age-long career as a civilized people, the ancient Romiū (predecessors, before

the 7th century B. C., of the "Egyptians"), made use of various artificial Spheroids—those noticed *supra*—all successively improved attempts at a calendrical harmonization with what experience showed was a natural division of Time. The first in vogue was the 360° Spheroid, with its 12 divisions of 30° each (in cuneiform a "Moon-period"), each degree or day representing "unity." In remote Sabaist ages (millenniums before B. C. 4000), under the divinity of Horus I, the Polar-God, Time was told by a Clock whose index-hand consisted of the 7 "Glorious Ones" of Ta-Urt, Genetrix of Cycles, the Hippopotamus Constellation (our Ursa Major)—the calendar beginning at "The Place of the Production of Fire" (later recognized as the Celestial Summer Solstice, wherever it then was on the Ecliptic), *i.e.*, when Ta-Urt's tail pointed south in the direction of Khem. Eventually, however, this 360° Spheroid stood for the Solar *régime* of St. Clair's Rā I, starting calendrically at the Celestial Autumnal Equinox, wherever that then was. Next succeeded the 361° Spheroid, with its 13 months of 28 days each, which, according to St. Clair, stood for the Luni-Osirian *régime*, starting ostensibly at the same Equinox—which, however, was then showing calendrically *as in Taurus*, when really it was *in Scorpio*; hence plainly "false." Next came the 365° Spheroid, with its 12 months of nominally 30, but really $30\frac{5}{12}$, days each. At first it stood for St. Clair's ambiguous Osirian *régime*, associated with both the old "false" Autumnal Equinox and the true Vernal Equinox, which latter was also somewhere in Taurus; but eventually it merged into the *régime* of Rā II, starting calendrically from the Celestial Summer Solstice, wherever that had got to. All these, of course, proved inadequate. Finally, the Romiu adopted the $365\frac{1}{4}$° Spheroid (practically true to Nature), with its 12 months of nominally 30, but really $30\frac{7}{116}$, days each. This stood for the famous Younger Horus *régime*, and at first it started calendrically from the Celestial Vernal Equinox properly so-called, but eventually its year opened at the Celestial Summer Solstice.

It is also on this Spheroid that our modern system of reckoning is based, though we distribute the days amongst the months differently.

All the foregoing suggests a sense in which the actual or natural Year (after which, with their successive artificial Spheroids, the Romiu, as above stated, had for so long been groping) is possibly regardable as having been none other than the mysterious Horus I, or Herū-Ur, who was recognised as having always existed, though imperfectly, whence his cognomen, *Herū-khent en-ma*, "Lord of Not-Seeing."

But whatever may have been the artificial Spheroid from time to time recognized officially in Khem, the old original 360° Spheroid was never wholly discarded. The masses continued to think and speak in terms of that Spheroid, as astronomers, etc., do still. Hence, in common *parlance*, the *Sed-Heb* was always called "the 30 years' Festival," even when the $365\frac{1}{4}^{\circ}$ Calendar, with its month of $30\frac{7}{11}$ days, was in vogue in priestly circles. Egyptologists do not seem to bear this fact in mind or to give it its due weight; but it is very necessary to do so.

Now, some time in the remote past, the Romiū happened to observe that our SUN completed some stupendous journey of a recurrent nature (possibly an orbital revolution round SIRIUS, or SOTHIS, as its primary), in what chanced to be 1,460 spheroidal years, as such years were known to them in association with the Cycle of their then artificial Spheroid of 365°. That is to say, they noticed that once, and once only, during such a Cycle, the annual Rising of a star performing hēliacal functions about the commencement of the annual Inundation of the Nile at or near the time of the Celestial Summer Solstice, *began* on 30 Paōni on the Fixed Clock of Nature, corresponding with 30 Ariēs zōdiacally. Latterly this star has been Sirius; but before B. C. $2786\frac{240}{480}$ it was apparently GAMMA DRACONIS. The quadrennium for 30 Paoni ended with Cyclical Year $1217\frac{240}{480}$, so that the quadren-

nium for 1 Epiphi began with Cyclical Year $1218\frac{247}{480}$. This point was exactly $243\frac{320}{480}$ spheroidal years by their own 365° spheroid (or $243\frac{240}{480}$ spheroidal years by the $365\frac{1}{4}$° spheroid) later than the close and fresh start, on the Fixed Clock aforesaid, of the older cycle of what is called the SOLAR YEAR at 0-1 Thoth (30 Gemini-1 Cancer, or the Celestial Summer Solstice, zōdiacally). Then the Priests held a continuous Festival for 3 days; and on the 3rd day (*i.e.* 3 Epiphi) the Rising *became visible*, and was therefore, in later Greek times, called the *Epiphany*, or "Manifestation," of the hēliacal star. This "Manifestation" point was exactly $231\frac{1}{6}$ spheroidal years by their own 365° Spheroid (=228 Spheroidal years by the old original 360° Spheroid which stood for "unity") later than the close and fresh start, of the older SOLAR YEAR at O—1 THOTH.[1]

To explain more in detail. *Between* F. 3 EPIPHI, completed, and F. 0-1 THOTH, starting the SOLAR CYCLE, lay 57 days. This, multiplied by 4, for the 360° Spheroid, gives 228 years. On the 364° Spheroid (where 4 changes to $4\frac{4}{90}$) this 228 was represented by $230\frac{24}{115}$; on the 365° Spheroid (where 4 changes to $4\frac{1}{118}$), by the $231\frac{1}{6}$ just mentioned; and on the $365\frac{1}{4}$° Spheroid (where 4 changes to $4\frac{28}{480}$), it becomes $231\frac{156}{480}$.

Between F. 30 Paōni, completed, and F. 0-1 Thoth starting the Solar Cycle, lay 60 (57+3) days. Multiplied by 4 that meant, for the 360° Spheroid, 240 years; multiplied by $4\frac{4}{90}$, it meant, for the 364° Spheroid, $242\frac{2}{3}$ years; multiplied by $4\frac{1}{118}$, it meant, for their then 365° Spheroid, $243\frac{1}{3}$ years; and, multiplied by $4\frac{28}{480}$, it meant, for the $365\frac{1}{4}$° Spheroid, $243\frac{1}{2}$ years.

According to modern reckoning, *i.e.*, on the basis of the $365\frac{1}{4}$° Spheroid, with its exclusive Cycle of 1,461 spheroidal

[1] Perhaps 30 Pakhons, if the year be taken as having then opened with Mesore instead of Thoth.

years, the Epochal Hēliacal Rising of Sōthis, as an actual phenomenon of Nature, occurred in each one of the 4 spheroidal years for F. 30 Paōni—Cyclical Years $1214\frac{219}{480}$, $1215\frac{226}{480}$, $1216\frac{233}{480}$, and $1217\frac{240}{480}$, corresponding to our B. C. $2789\frac{261}{480}$, $2788\frac{254}{480}$, $2787\frac{247}{480}$ and $2786\frac{240}{480}$.

Thereafter, with every successive lapse of 1,461 spheroidal years, it recurred regularly on the same calendrical dates. So far, then, we recognize actualities.

Nevertheless, the Romic priests seem to have attached *more importance to their* HEBS, *or Festivals, in honour of the impending "Manifestation" than to the "Manifestation" itself, or even to the actual Rising itself;* and as their great epochal 3-days' *Heb* began immediately after the spheroidal quadrennium which ended with $1217\frac{240}{480}$ on the $365\frac{1}{4}°$ Spheroid, *i.e.*, began on F. 1 EPIPHI (F. 0-1 THOTH, as starting the SOLAR YEAR, being at the Celestial Summer Solstice), and continued throughout F. 2 and F. 3 EPIPHI, or perhaps only till the heliacally Rising Star actually "manifested" on the last-mentioned day, we have to assume that the *Official Priestly Date* of the event is represented chronologically, not by the quadrennium for the actual Rising on F. 30 PAONI, or the actual "Manifestation" on F. 3 EPIPHI, but by the quadrennium for the *exact middle of the Epochal Heb-period*—in other words, the quadrennium for F. 2 EPIPHI, *i.e.*, $1222\frac{275}{480}$; $1223\frac{282}{480}$; $1224\frac{289}{480}$; and $1225\frac{296}{480}$.

Moreover, within this *Epochal Quadrennium*, a particular year was selected, representing the precise date of what has been called the *Epochal "Coincidence"* between the SOLAR and SOTHIC Calendars—and which, as we shall find, works out all our arithmetical calculations—*i.e.*, $1223\frac{282}{480}$, or (as deducted from Conventional B. C. 4004), B. C. $2780\frac{198}{480}$. This is a date to remember. It may roughly and loosely be called B. C. 2781. It takes the place of the

inaccurate Conventional "Coincidence" Date, B.C. 2780, or 2782.

Now let us tackle the question of Calendar-Equation. Naturally one supposes that the proper equation is "1 Epiphi, Sōthic=1 Thoth, Solar." How, then, does that work? Take the *Kahūn*-Rising date, 15 Pharmūthi, Solar. It was the $913\frac{60}{480}$th year of its own cycle of 1,461 spheroidal years. Assumedly it equates with 15th Mekhir, Sothic, which is cyclical year 669 . Can this be rationally equalized with 913^{60}? We require $243\frac{240}{480}$ spheroidal years? Where are they to be found? The answer is that exactly $243\frac{240}{480}$ such years attach to the first member of the quadrennium for 1 Epiphi, as the balance of time, counting from 30 Paōni, necessary for Solarizing the year at the Summer Solstice.

But suppose we adopt the Priestly equation "2 Epiphi, Sōthic=1 Thoth, Solar." What then? In that case 15 Pharmūthi, Solar, would mean 16 Mekhir, Sōthic. This is cyclical year $673\frac{328}{480}$. To equalize that with $913\frac{60}{480}$, we need $239\frac{212}{480}$. It is found attaching to the first member of the quadrennium for 2 Epiphi, as the residue required for Solarizing the year.

But, again, suppose, with the Romic masses, having regard to the "Manifestation" of Sōthis on the 3rd Epiphi, we adopt the equation "3 Epiphi, Sōthic=1 Thoth, Solar." In that case 15 Pharmūthi, Solar, means 17 Mekhir, Sōthic. That is cyclical year $677\frac{356}{480}$. To equalize that with $913\frac{60}{480}$, we need $235\frac{184}{480}$ years. That very number of years attaches to the first member of the quadrennium for 3 Epiphi, as the required Solarizing residue.

But yet again, we are told that the Sōthic Year was 228 spheroidal years (*i.e.*, on the 360° spheroid) later than the Solar Year. On the $365\frac{1}{4}°$ spheroid (with which we are now concerned) this 228 becomes $231\frac{156}{480}$. That happens to attach to the first member of the quadrennium for

F. 4 Epiphi. It would therefore seem that we may also adopt the equation "4 Epiphi, Sōthic = 1 Thoth, Solar." In that case 15 Pharmūthi, Solar, would mean 18 Mekhir, Sōthic, which is cyclical year $681\frac{384}{480}$. To equalize that with $912\frac{60}{480}$, we require $231\frac{156}{180}$; and that is just what we find ready to hand, attached to the first member of the quadrennium for this calendar date, as the residue of time necessary for Solarizing it at the Summer Solstice.

Thus, when we know how to manipulate the position, it apparently matters little which of these various equations we adopt.

Thenceforward, for the Romūi, Cyclical Year $1217\frac{240}{480}$, or our B. C. $2786\frac{240}{480}$, regarded as *zero*, became an Epoch —the opening point, in fact, of an Era. It was bassed on Nature. This was none other than the so-called ERA OF MENOPHRES, or the era at whose commencement, in the 18th regnal year of Pepi I of the 6th Dynasty, (a *Henti-Heb year*), the SOTHIC CALENDAR was instituted. Its second quadrennium was as follows—

B. C. $2785\frac{233}{480}$
„ $2784\frac{226}{480}$
„ $2783\frac{224}{480}$
„ $2782\frac{219}{480}$.

Of course, as already explained, the Priests had their own exclusive system of chronology, based on Cyclical Year $1223\frac{282}{480}$, or B. C. $2780\frac{138}{480}$. As for the masses, the time of the occurrence of the "Manifestation of Sōthis" seems to have been the most popular epochal-date. But there can be no doubt that the real Coincidence-Epoch, the Epoch at which one Sōthic-Cycle ended and its successor began, and which was in unfailing harmony with the *Heb-* and Rising- lists that can be made out in orderly sequence from *zero* in every cycle of 1461 years, was Cyclical Year $1217\frac{240}{480}$, or B. C. $2786\frac{240}{480}$, the last member of the quadrennium for F. 30 Paōni.

Thus the ancient Romiū came into possession of two very different Calendrical Systems—one representing the SOLAR YEAR and its Cycle of Natural Time, starting with O-1 Thoth from the spheroidal point indicative of the Celestial Summer Solstice on the Fixed Clock (wherever that Solstitial point happened to be then, zōdiacally), and the other constituting what is commonly called the SOTHIC CYCLE, equating with Natural Time, but starting with O-1 Epiphi from, and ending, on the same Fixed Clock, at the spheroidal point indicative of that Epochal Rising of Sirius on F. 30 Paōni which only occurred once in every spheroidal Cycle.

To this Fixed Clock of Nature each of the artificial Spheroids above-mentioned was attachable in the shape of a calendrical Epicycle. Thus arose what is known as the VAGUE (or "Wandering") YEAR, whose New-Year's Day, 1 Thoth, acting as a Clock-hand, progressed round the Fixed Clock at a speed which depended entirely upon the number of degrees that the current artificial Spheroid consisted of. To-day it has a more limited meaning, being restricted to the 365° Spheroid.

These two Calendrical Systems—that of the SOLAR CYCLE, and that of the SOTHIC CYCLE—are recorded, and ostensibly harmonized, at what have been styled "Coincidence" points (really epochal beginnings and endings of the Sōthic Cycle), on the *verso* of the so-called "Ebers Medical Papyrus"—another very curious document, the interpretation, in terms of "B.C." and "A.D." reckoning, put upon which by the learned (who only seem to have in their minds the 360° and 365° Spheroids, and these mixed up), requires looking into.

By that interpretation the Solar Calendar appears to be taken, for a starting-point, to an epoch as far back as the quadrennium *called* "B. C. 4470—4467"; whence, in stages of 1,460 years, it is seemingly brought down, through "B. C." 3010-3007, and "B. C." 1550-1547, to "B.C." 90-87...

or, I suppose, as much farther as we like. The other (the Sōthic Calendar), as represented, starts 228 years later (really 228 on the 360° Spheroid only), apparently with the quartet of years *called* "B.C. 4242-4239"; whence, in similar stages, it is seemingly brought down, through "B.C." 2782-2779, and "B. C." 1322-1319, to A. D. 139-142. At the same time, it is obvious that, if this Sōthic Calendar is made to start 228 years (by the 360° Spheroid) after the Solar-Year Calendar, both should have been brought down in stages, not of 1,460, but of 1,440, spheroidal years. If the Sōthic Calendar be brought down in stages of 1,460 spheroidal years, it should be made to start, not 228, but $231\frac{1}{6}$, spheroidal years later than so-called "B.C." 4470-4467, *i.e.*, with "B. C." $4238\frac{5}{6}$-$4235\frac{5}{6}$. Similarly, if brought down in stages of 1,456 spheroidal years, it should be made to start $230\frac{25}{73}$ years later than "B. C." 4470-4467; and lastly, if in stages of 1461 spheroidal years, then 231^1 spheroidal years later than "B. C." 4470-1467. In short, the stage actually given (1,460 years), besides being wrong and impossible in association with "228," is by no means necessarily the only appropriate stage to be adopted. What that stage should be, depends entirely upon whether our calculations are being conducted on the basis of a Spheroid of 360°, of 364°, of 365°, or of $365\frac{1}{4}°$.

We shall find, however, that the proper way to treat these ostensible "harmonizations" is, not to *bring down* their figures from the remotest alleged B. C. date, but, by legitimate Cyclic stages (combined with correct "difference" periods), to *construct them backwards and forwards* from an assured "Coincidence" epoch (say B. C. $2780\frac{198}{480}$), to whatever B. C. date may be justifiably regarded as the "Beginning of Time," or "Civilization," and to a legitimate A.D. date. This will give us a priestly result. In brief, "B.C." 4470-4467 is not, in this sense, an established epoch—not, as suggested, a "fixed" date from which to space out successive

"Coincidence" epochs downwards. Neither is "B.C." 4242. The whole thing—this *verso* "harmonization"—seems really built up upon the date of a supposed first Epochal Sōthic-Rising in what was apparently regarded as the A.D. Era, *i.e.*, on "A.D." 139-142. And that is in the air.

Apparently it is on the strength of the above very doubtful interpretation of this document that Professor Breasted cites so-called "B.C. 4242" (or, as he gives it, B.C. 4241) as "the earliest fixed date in the history of the world" (*History of Egypt*, p. 32). But, when the reader sees that "B.C. 4242" is only a paper epoch (wrongly arrived at, too), and that there seems no reason whatever why, by Cyclical leaps of 1,460 years, the calculation—illegitimate though it is—should not go on and on into indefinite *pseudo*-B. C. depths, he will probably begin to wonder how the learned Professor could ever have countenanced such an exhibition of loose thinking.

As a matter of fact, these *verso* "harmonizations" reveal, or rather their hitherto accepted interpretation reveals, an astonishing jumble of basic calendrical ideas. B.C. and A. D. years for us, can *only* be thought of and stated in terms of the $365\frac{1}{4}°$ Spheroid, which (*inter alia*) has a Cycle of 1,461 spheroidal years, exclusive to itself. Yet, though, in the Sōthic-Time column on the *verso*, the Rising-dates given are stated in "A. D." and "B. C." years, we are carried back in these jottings from "A. D." 139-142 to so-called "B. C. 4242-4239," in stages of 1,460 years—the exclusive Cycle for the 365° Spheroid! And lastly, alongside is placed, by way of "harmonization," a series of Solar-Time dates, each 228 years higher than its corresponding Sōthic-Time date—in artless unconcern, be it noted, for the hard fact that these 228 years belong exclusively to the 360° Spheroid, and are meaningless if and when associated with another Spheroid!

And how did the interpreters *get* their foundational "A. D." 139-142 in the Sōthic-Time column? They have

flirted with no less than 3 distinct Spheroids—the 360°, the 365°, and the 365¼° Spheroids; and they have ended up by leaving in the lurch, out of these, the one love (the 365¼° Spheroid) that they should have been true to!

The task of fixing A. D. years is, undoubtedly, a very difficult one. First, we do not know when, with reference to Precession and the Zōdiac, Jesus was born; secondly, A. D. years were practically never thought of till the time of the Council of Nicaea (over 3 centuries after Jesus's death!); thirdly, the A. D. Era was not even in existence till over 200 years later, when it was invented by Dionysius Exiguus, in A. D. 532; fourthly, A. D. years have more than once been considerably altered by the Supreme Temporal Power for the time being; and fifthly, before, and even for some time during, the Christian Era, the Year began on or about 21 March, the terrestrial season indicating the Celestial Vernal Equinox, but now it starts with 1st January! To cap everything, as a result of continued Precession, the Vernal Equinox is now about a zōdiacal sign farther on than the point where we conventionally place it—*i.e.*, it seems to have entered Aquarius!

Since Ussher's time, the birth of Jesus has been conventionally assigned to A. M. 4004; whence, of course, 0 = B.C. 4004. Before Dionysius Exiguus's day (A. D. 532), it had been commonly supposed that Jesus was born in the year that we would now style B. C. 4, *i.e.*, in A. M. 4000. Hence, the interpreters of these *verso* "harmonizations," possibly regarded what is to-day called the Christian or A. D. Era as commencing with A. M. 4000. To-day Dr. Headlam considers that Jesus was probably born about B. C. 8 or 7!

In view of all this uncertainty, it would be much better to abandon the Christian Era, or any other such terrestrially personal and particular era, and adopt one founded on some definitely ascertainable Cosmic Event—if possible unique, or otherwise sufficiently outstanding.

But again I ask, how did these interpreters *obtain* their Sōthic date, "A. D." 139-142? It is ostensibly related to the $365\frac{1}{4}°$ Spheroid now in vogue; yet they have obviously been working with the 360° and 365° Spheroids. Which method do they now profess to stand by?

We now know that an epochal heliacal Rising of Sirius occurred *officially* (*i.e.*, according to the priestly ideas and preferences of the old Romic chronologers) during the quadrennium A. M. $1222\frac{275}{480}$—$1225\frac{296}{480}$ = B. C. $2781\frac{205}{480}$—$2778\frac{184}{480}$; though these figures as we have seen, do not represent the time at which the Rising actually took place. The next officially epochal Rising, after the lapse of 1461 spheroidal years, must have been B. C. $1320\frac{205}{480}$—$1317\frac{184}{480}$; and the next, after another 1461 spheroidal years, must have been A. D. $140\frac{275}{480}$— $143\frac{296}{480}$. We arrive at this result by calculations based on the $365\frac{1}{4}°$ Spheroid, with its exclusive Cycle of 1461 spheroidal years; and only by that way *can* we reach the right goal.

We may, indeed, resort to A.M. 1221^{53}—$1224\frac{56}{72}$ as the quadrennium for F. 2 EPIPHI on the basis of the 365° Spheroid; and thence, by stages of 1460 spheroidal years (the proper Cycle for that Spheroid), we can arrive at A.D. $137\frac{53}{72}$—$140\frac{56}{72}$. But, although the interpreters of the *verso* "harmonizations" were working with a Cycle of 1460 years, and were therefore really based on the 365° Spheroid, did *they* get their "A. D." 139-142 along these lines? I think not. I imagine they relied exclusively on the statement attributed to Censorinus (said to have flourished in the 3rd century A.D., *i.e.*, about 2 centuries before the invention of that era by Dionysius Exiguus), to the effect that an epochal hēliacal Rising of Sōthis took place in "A.D." 139. Compare however, the Alexandrian coin bearing the word "Aiōn" (No. 1004 in the British Museum) which records such an occurrence as distinguishing the year A.D. 143.

In any case, it is clear that "A.D." or "B.C." figures, based on a Spheroid of 365° and a related Cycle of necessarily 1460 spheroidal years, can never be the same as A.D. and B.C. figures arrived at by modern reckoning, *i.e.*, based on a spheroid of $365\frac{1}{4}°$ and a related Cycle of necessarily 1461 spheroidal years.

The true first Sōthic date in real A.D. times, then, was A.D. $140\frac{275}{480}$—$143\frac{296}{480}$, not this "A.D." 139-142 of the *verso* "harmonizations."

Now let us count back from this A.D. $140\frac{275}{480}$—$143\frac{296}{480}$ in stages, *not* of 1460, but of 1461, spheroidal years. For the SŌTHIC-TIME column in the *verso* "harmonizations," we get B.C. $1320\frac{205}{480}$—$1317\frac{184}{480}$; then B.C. $2781\frac{205}{480}$—$277\cdot\frac{184}{480}$; and lastly (unless, of course, we care to go farther), B.C. $4242\frac{205}{480}$—$4239\frac{184}{480}$.

Then, to get our SOLAR YEAR dates, what do we do? We *raise* these figures. But *not* by 228 as is done by the interpreters! We raise them by the figure which, on the $365\frac{1}{4}°$ spheroid, takes the place of .228 on the 360°, or "unity," spheroid,—*i.e.*, $231\frac{156}{480}$ spheroidal years.

Thus, by *legitimate* stages of 1461 spheroidal years, we arrive, for the SOLAR Calendar, at the following quartets of years—B. C. $4473\frac{361}{480}$—$4470\frac{340}{480}$; $3012\frac{361}{480}$—$3009\frac{340}{480}$; $1551\frac{361}{480}$—$1548\frac{340}{480}$; and $90\frac{361}{480}$—$67\frac{340}{480}$.

If, therefore, any year at all, in the remote history of the world—as marking the beginning of Recorded Time in Khem—can be legitimately spoken of as "the earliest fixed," or even "the earliest fixable"—and this depends on many other data of knowledge not now the subject of enquiry—that year would appear to be, neither "B.C." 4242, nor B.C. 4241, but rather B.C. $4242\frac{205}{480}$, SOTHIC. Roughly we may regard it as the opening of the Tauric Era.

Of course, within the above quadrennium B.C. $2781\frac{205}{480}$—$2778\frac{184}{480}$ (in fact, its second year), is the notable year B.C. $2780\frac{193}{480}$, which we have already set apart as one of our

"Coincidence" dates, *i.e.*, on the $365\frac{1}{4}°$ Spheroid. If we take that epoch as our base, we get the preferable Sōthic series B.C. $4241\frac{196}{490}$ (our "earliest" date); B.C. $2780\frac{198}{480}$; B.C. $1319\frac{198}{480}$; A.D. $141\frac{282}{480}$; and so on.

NOTE.—In an earlier draft of this paper I assumed that the particulars on the *verso* of the "Ebers Medical Papyrus" were jotted down in A. D. times. I have been told (by Mr. T. George Allen, of Haskell Oriental Museum, Chicago, who read a copy of that draft) that the assumption so made is wholly unjustified, as the writing is clearly of the type current in the 16th century B.C., and quite different from the style in use so much later. Accepting the correction (for I had never seen the script or the *verso*, or any reproduction of them), it seems to me that in that case the problem is only shifted from considerations regarding the mentality of the *verso*-scribe to considerations regarding the conclusions of those responsible for the conventional interpretation.

Revert now to what may conveniently be called Petrie's List of Reported Sōthic-Rising (or Feast) Dates, as recorded by the "Egyptian" priests. These curious vestiges of, or relating to, the remote past, need no longer bewilder us.

In my original pamphlet on *Ancient Romic Chronology* (see Calcutta University's *Journal of Letters* for 1920, Vol. I), I alluded to the fact that, for the Cycle belonging to every one of the known artificial Spheroids from time to time in vogue amongst the ancient Romiū—the 360°, 364°, 365°, and $365\frac{1}{4}°$ Spheroids—it was possible, starting in each case from *zero*, to make a complete list of all Sōthic-Rising (or Feast) Dates, and of all the *Sed* and *Hunti Hebs* ever celebrated by the Romiū—provided always, of course, that we can ascertain the epoch at which Civilization began in Khem, *i.e.*, at which the Romiū commenced to record Time scientifically and regularly. In such of these General Feast and *Heb* Lists as are based on the $365\frac{1}{4}°$ Spheroid, there is one date of outstanding importance—that associated in Petrie's List with the Calendrical datum 21 "Epiphi." We are told that it was not only a *Sed-Heb* year, but also Queen Hatshepsūt's 16th, and Pharaoh Thothmes III's 3rd, regnal year—a triple conjunction of most welcome conditions! As such, it can only be A. M. $2526\frac{5}{16}$ ($1065\frac{5}{16}$ in its own

Cycle, +a previous Cycle of 1461), or B.C. $1477\frac{11}{16}$, as appearing in the above General Lists. Hence, in a very unique way, it is a "Clinch"-date, and governs the entire situation. In other words, as the *Sed-H b* period for the $365\frac{1}{4}°$ Spheroid (corresponding to the 28 Luni-Osirian spheroidal years between the various Calendrical data in Petrie's List) is one of $30\frac{7}{16}$ spheroidal years, the remaining serially-stated Calendrical data in Petrie's List, if expressed in terms of modern reckoning, may be assigned to dates spaced out regularly at intervals of exactly $30\frac{7}{16}$ spheroidal years before or after B. C. $1477\frac{11}{16}$.

Is there any method of viewing and treating these reported Calendrical data which will yield us this controlling date, apart altogether from, and independently of, the General Lists above referred to? There is. And in the working out of that method we obtain, I think, the solution of the mystery heretofore surrounding these peculiarly reported Sōthic-Risings.

In their regular stages of 7 spheroidal days, or 28 spheroidal years, the Reported Dates, I suggest, are all arranged in accordance with a priest-invented Scheme based, as regards at least the days of the month, on the *Luni-Osirian Spheroid* of 364°. This has a Year-form of 13 months of only 28 days each; a day of $1\frac{1}{360}$ days on the old original 360° Spheroid; a Cycle of 1456 spheroidal years, being $360\times4\frac{4}{360}$, or 364×4; and a *Sed-Heb* period of 28 of its own spheroidal years.

The sequence of Calendrical data in Petrie's List, for each Luni-Osirian month, is obviously 7, 14, 21, 28 (with certain lapses, it is true, into other figures); each such stretch of 7 days representing, on the Cycle, 28 Luni-Osirian spheroidal years ($7\times4=28$), corresponding to the Luni-Osirian *Sed-Heb* period of 28 years—the equivalent, on the 360° Spheroid, of 30 spheroidal years; on the 365° Spheroid, of $30\frac{5}{7}$ spheroidal years; and, on the $365\frac{1}{4}°$ Spheroid (where

we also get our modern reckoning), of $30\frac{7}{6}$ spheroidal years. As signifying merely 30 and 120 on the old original 360° Spheroid of the Polar Clock, the *Sed*-period and the *Hunti*-period are simply mathematical sub-divisions of that Spheroid, and metamorphose automatically into higher numerical values when other Spheroids come into play. Dates, *called* "B. C.," can, of course—as we have occasionally seen—be worried out to a fraction on the exclusive basis of the 360°, the 364°, or the 365° Spheroid; but naturally, until raised to the higher plane of the $365\frac{1}{4}°$ Spheroid, they do not, and cannot, harmonize with the system of reckoning now in vogue with us.

Clearly, therefore, when our *object* is to express results in terms of modern reckoning, it will not do to make our calculations on the basis of the 360°, the 364°, or the 365° Spheroid—working, for example, with the 1440-year, the 1456-year, or even the 1460-year Cycle—and then, prefixing "B.C.," or "A.D.," to our final figures, naïvely imagine that thereby we have stated them in terms of current chronology. We must betake ourselves to the very differently constituted $365\frac{1}{4}°$ Spheroid, and use it as an auxiliary to the 364° Spheroid. I shall show too, presently, that we can even work with it exclusively.

There, the day is $1\frac{7}{480}$ of the "unity" days on the 360° Spheroid; the year has 12 months of nominally 30, but really $30\frac{7}{6}$, days each; the Cycle is one of 1461 spheroidal years, being $360\times4\frac{28}{480}$, or $365\frac{1}{4}\times4$; and the *Sed-Heb* period consists of $30\frac{7}{6}$ spheroidal years—the "30-years' *Sed*" of common *parlance*.

At the same time, we must remember that the "21" of "21 Epiphi," in the Report-List, is not 21 of the ordinary "unity" days on the 360° Spheroid; nor is it 21 days of $1\frac{1}{72}$, as on the 365° Spheroid; nor is it even 21 days of $1\frac{7}{480}$, as on the $365\frac{1}{4}°$ Spheroid. *It is 21 Luni-Osirian days.* A Luni-Osirian day, recollect, is $1\frac{1}{80}$ "unity" days on the 360°

Spheroid. Hence, to get the correct expression of this "2. Epiphi" in terms of modern reckoning, *we must treat* $1\frac{1}{960}$ *as though it were "unity,"* and multiply it by $1\frac{7}{480}$. Thereby we obtain $1\frac{11417}{432000}$—the equivalent on the $365\frac{1}{4}°$ Spheroid of the Luni-Osirian day regarded as "unity." Thus—multiplying that in turn by 21—"21 Epiphi," by modern reckoning, really emerges as "$21\frac{234567}{432000}$ Epiphi." Then, to find what this represents in spheroidal years, we multiply by 4, which gives us $86\frac{74428}{432000}$. Thereby, as it were mechanically, we side-step from *month* Epiphi on the 364° Spheroid to the higher plane of *month* Epiphi on the $365\frac{1}{4}°$ Spheroid. To these spheroidal years for Solar Epiphi must now be added the number of spheroidal years represented on the $365\frac{1}{4}°$ Spheroid by all the Calender days preceding that month, *i.e.*, from O-l Thoth to 30 Paōni, completed. These amount to $1217\frac{1}{2}$. The sum aggregates $1303\frac{290028}{432000}$ (*cf.* the $1302\frac{348}{480}$ in my General List, under the heading $365\frac{1}{4}°$ Spheroid); and that, deducted from B. C. $2780\frac{198}{480}$ (the correct "Coincidence" Epoch at this stage for the $365\frac{1}{4}°$ Spheroid) gives us only B.C. $1476\frac{310092}{432000}$, *not* our "Clinch"= date B.C. $1477\frac{11}{16}$. If, instead of B.C. $2780\frac{198}{480}$, we adopt the looser B.C. 2781, we get B.C. $1477\frac{141720}{432000}$—the year right, though not the fraction. This, however, is really illegitimate. But if, instead of Luni-Osirian *cum* Solar $1303\frac{290038}{432000}$, we resort to purely Solar $1302\frac{348}{480}$ (listed aggregate just mentioned), and deduct *that* from the correct "Coincidence" figure, $2780\frac{123}{480}$, we arrive at B.C. $1477\frac{11}{16}$ *exactly*!

If, by way of checking what has just been worked out along Luni-Osirian *cum* Solar lines we base our calculations on the Solar $365\frac{1}{4}°$ Spheroid alone, and assume the 21 days of Epiphi to have been 21 of $1\frac{7}{480}$ each, for Epiphi on the Fixed Clock, with Thoth starting from the Celestial Summer Solstice, we obtain the very same result, but reach it quite quickly and easily.

$1\frac{7}{480} \times 21 = 85\frac{108}{480}$. Add $1217\frac{240}{480}$, and we get the $1302\frac{348}{480}$ alluded to *supra*. Deduct this from B.C. $2780\frac{108}{480}$, and the result is B.C. $1477\frac{330}{480}$ (*i.e.*, $1477\frac{11}{16}$) *precisely* ! This therefore, seems the better method of the two.

Note that, as A.M. $1302\frac{348}{480}$, deducted from A.M. $2526\frac{168}{480}$ = A.M. $1223\frac{282}{480}$, or B.C. $2780\frac{108}{480}$, it follows that the Cycle of 1461 spheroidal years, in which "21 Epiphi" (in the Petrie List of Risings) is represented by A.M. $1302\frac{348}{480}$, must have commenced with A.M. $1223\frac{282}{480}$, or B.C. $2780\frac{108}{480}$ our old friend the "Coincidence" date), as its *zero*.

Now, assuming B.C. $1477\frac{11}{16}$, for the "21 Epiphi" in Petrie's List, to be established, Amon-hetep I's 9th regnal year (really represented by "7 Epiphi," not by "9 Epiphi," which is somebody's blunder) turns out to be A.M. $2465\frac{210}{480}$ = B.C. $1538\frac{270}{480}$. His first regnal year, therefore, would have been A.M. $2457\frac{154}{480}$ = B.C. $1546\frac{326}{480}$. Accordingly, the first regnal year of the FOUNDER OF THE EIGHTEENTH DYNASTY—AHMES I, who reigned 25 years—was really A.M. $2432\frac{468}{480}$ = B.C. $1571\frac{14}{480}$. It is usually given in the books as "B.C." 1580, ostensibly modern reckoning, though really based on the 360° Spheroid.

By the foregoing Luni-Osirian *cum* Solar method all the other dates in Petrie's List, before and after "21 Epiphi" (provided they really belong to this priest-invented Scheme, and are not mere "lapses" on the part of some copyist), fall into place precisely as they should in relation to the "controlling date," B. C. $1477\frac{11}{16}$—*i.e.*, exactly, as regards the years, though not exactly, as regards the fractions. Seeing, however, that we are working with a blend of two quite differently constituted Spheroids, and therefore two quite different Calendars and Cycles, this appears to be as satisfactory an approximation to the chronological truth as may reasonably be expected at present. Moreover, we are not tied down to this particular method, which has only been thus brought forward as a

possible explanation of the mysteries hitherto lurking in Petrie's Report-List. As I have shown, there is a shorter and better method. Besides, as a last resource, we can always check results by my General Lists.

It has, of course, to be remembered that, in the distant days of the 364° Spheroid, the Romiū had not ventured to regard the $365\frac{1}{4}$° Spheroid as the possible basis for an improved artificial Calendar. At the same time, they had glimmerings of its importance; and so, though not actually adopting it (they had not even, at that time, adopted the 365° Spheroid !), they nevertheless clearly recognised something of its utility—at least to the extent of groping out at it as an auxiliary.

We can even get at (or near) the *Kahūn* Sōthic-Rising, or Feast, by this rather complicated method that I have just been suggesting—*i.e.*, taking the reported Calendrical datum as Luni-Osirian, and then expressing the result of our calculations in terms of the Solar $365\frac{1}{4}$° Spheroid.

The reported date is "the 15th day of the 8th month," *i.e.*, 15 Pharmūthi, counting from O—1 Thoth. It is put thus vaguely, and not stated definitely as "15 Pharmūthi," possibly because, in those old times, when as yet the Sōthic Cycle was unheard of, the much later Hellenized (doubtless at first Mykenized) nomenclature for the Romic months, even if known, was not in use. The Luni-Osirian day, remember, is (for our purposes) $1\frac{1117}{43209}$, which in this case has to be multiplied by 15. The 15th Pharmūthi would then become "the $15\frac{16955}{43200}$th Pharmūthi." Multiplied by 4, to get spheroidal years, this produces $61\frac{24620}{43200}$. Add $852\frac{108}{43200}$ for the spheroidal years, before Pharmūthi, *i.e.*, up to the end of Phamenōth, as found on the $365\frac{1}{4}$° Spheroid, and we obtain $913\frac{35410}{43200}$ (compare the $913\frac{60}{480}$ for the $365\frac{1}{4}$° Spheroid on my General List of Risings from Cyclical O).

Subtract this $913\frac{365}{480}$ from B.C. $2780\frac{188}{480}$ (the correct "Coincidence" date), and we get only B.C. $1866\frac{256}{480}$. Subtract it from the rougher B.C. 2781, and we get B.C. $1867\frac{7780}{480}$—though illegitimately. But if we resort to the above $913\frac{60}{480}$, and subtract *it* from B.C. $2780\frac{188}{480}$, we get B.C. $1867\frac{128}{480}$—the true date, as I submit, of this old 12th Dynasty Rising, expressed in terms of modern reckoning.

On a Sōthic-Time basis we can check this thus. As the Sōthic Year begins with Epiphi of the Fixed clock of Nature, the "8th month," by that system, would be Mekhir; and, according to our harmonization or equation of the SOLAR and SOTHIC YEARS, wherein 4 Epiphi, Sōthic, equates with 1 Thoth, Solar, the 15th Mekhir, Sōthic, equates with the 18th Khoiak, Solar. The quadrennium for this is—

$$435\tfrac{123}{480}$$
$$436\tfrac{130}{480}$$
$$437\tfrac{137}{480}$$
$$438\tfrac{144}{480}$$

Out of these select the second, $436\frac{130}{480}$. Add 1461, and we get $1897\frac{130}{480}$. To this, again, we have to add $239\frac{212}{480}$ spheroidal years, representing on the $365\frac{1}{4}°$ Spheroid the 59 days, counting back to and including the old Romic priests' 2 Epiphi (referred to *supra*), from the 1 Thoth *with* which the Solar year started. Hence—

$$1897\tfrac{130}{480}$$
$$239\tfrac{212}{480}$$
$$\text{———}$$
$$2136\tfrac{342}{480}$$

Subtract this from Conventional B. C. 4004, and the remainder is the *exact result* we want, *i.e.*, B.C. $1867\frac{188}{480}$!

Results based on a Cycle of 1460 spheroidal years arising out of the 365° Spheroid—*e.g.*, the "B. C." 1880 usually accepted for the *Kahūn* Rising—cannot possibly represent modern reckoning, *i.e.*, cannot be what is properly

understood to-day as B. C. How H. R. Hall gets his "certain date of 1876 or 1872 B.C." (*Ancient History of the Near East*, p. 23) does not appear. Also, I wonder whether his B. C. is indeed B.C., and not rather "B. C.," like so may others. In any case, his figures are wrong.

All the foregoing proceeds on the assumption that, as regards every Epochal Sōthic-Rising, the spheroidal point with which it coincided *actually*, was different from the spheroidal point with which (for purposes of Chronology) it was *officially*, *i.e.*, by the priests, regarded as coinciding. In the former case it was 30 Paōni or 3 Epiphi on the fixed Clock of Nature. In the latter case it was the quadrennium for F. 2 Epiphi, *i.e.*, the quadrennium for the half-way point of the 3-days' continuous Feast, beginning *from* F. 30 Paōni, held by the priests in honour of the impending "Manifestation." And, within that quadrennium, the particular year was A. M. $1223\frac{282}{480}$=B.C. $2780\frac{198}{480}$. In other words, it was the point, *for the Priests*, indicative on the $365\frac{1}{4}°$ Spheroid of the close of one Sōthic Cycle and the immediate commencement of its successor. The results, however, would be just the same if, instead of the spheroidal point for the middle of the continuous 3-days' *Feast*, we were to take the point for the *actual Rising*, or the actual "Manifestation," as the epochal point alluded to. The only difference would be a change in our method of calculating, *i.e.*, in our logistic, or, in modern parlance, our arithmetic.

As regards the side-step from one of the 13 months on the 364° Spheroid to one of the 12 months on the higher plane of the $365\frac{1}{4}°$ Spheroid, referred to *supra*, the following further remarks may be welcome. Naturally, the months on the two Spheroids do not dove-tail into each other. For instance, Solar Epiphi, on the $365\frac{1}{4}°$ Spheroid, equates for only 8 days with Luni-Osirian Epiphi on the 364° Spheroid, these 8 beginning with the 21st of the last-mentioned month. The balance of Solar Epiphi's nominal 30 days corresponds to

22 days of Luni-Osirian Mesorē, the penultimate month on that Spheroid. Hence, "21 Epiphi," in Petrie's' List, is seemingly only 1 Epiphi on the $365\frac{1}{4}°$ Spheroid. However, the inventors of the suggested Scheme (not contemplating the use of the $365\frac{1}{4}°$ Spheroid exclusively) naturally took no account of what Luni-Osirian calendrical data really meant, when considered in the light of the higher plane of the $365\frac{1}{4}°$ Spheroid. Hence, they seem to have taken their *month-names*, at least eventually, from the $365\frac{1}{4}°$ Spheroid, and, at least originally, only the selected serial *days of the month* (7, 14, 21, 28) from the 364° Spheroid. Note that in the Report-List, there is no series of 7, 14, 21, 28, for the 13th Luni-Osirian month. There, the Calendrical datum "28 Mesorē" is followed straightaway by the datum "7 Thoth" on a fresh Cyclical round. In short, as regards these two very different Spheroids, the Scheme apparently contemplates working with both, in combination.

Another point inviting notice is this. As the scheme above-mentioned—at least so far as concerns the days of the month in the Calendrical data—was *ex hypothesi* based on the Luni-Osirian Spheroid, Calendar, and Cycle, starting from the so-called Celestial Autumnal Equinox, *i.e.*, the old calendrically "false" Autumnal Equinox, really *the true Celestial Spring Equinox*, ever in vogue at Memphis, the Reports were doubtless issued from, and the record of them kept at, that famous centre of ancient Romic and later "Egyptian" Culture and Power, or somewhere within its sphere of influence; and, having regard to the obviously Hellenized nomenclature of the months mentioned in the Report List, the priestly record-keepers, if not the actual reporters, may be taken to have been comparatively modern "Egyptians," not men of the ancient Romic stock.

To sum up. We now know definitely what were the meanings, the importance, and the practical uses in connection with the recording of Time, of the technical terms *Sed* and

Hunti, and also what complex ideas really lay behind such imple popular expressions as "the 30-years' Festival," etc.

We also now know what value to attach to the particulars regarding the Solar Cycle and the Sōthic Cycle, ecorded on the *verso* of the "Ebers Medical Papyrus," and lso what the correct particulars should have been.

We also now know to a certainty where to look on the Spheroid of the Fixed Clock of Nature to find the exact point ndicative of the epochal moment when one Sōthic Cycle ended and another began.

We also now know that in practice the Romic priests lifferentiated between the *actual* date of an Epochal Sōthic-Rising and their own *official* date for it; and that, in connection with the national system of recording Time, they preferred, and in fact adopted, their own official date.

We also now know that the reason why the Sōthic-Risings, or Feasts, for the Calendrical data (7, 14, 21, 28, of the month) in Petrie's Report-List, were specifically chosen by the priests of old for purposes of report, and not any other of the countless Risings which occurred annually with unfailing precision, was because, in connection with the "Manifestations," the Cycle of the Solar Year, the Sōthic Cycle, and the various Spheroids from time to time in vogue—notably two, the 364° and the $365\frac{1}{4}°$ Spheroids—some one had invented a Scheme based in certain important respects on the Luni-Osirian Spheroid, Calendar, and Cycle, but also based in certain other important respects on the $365\frac{1}{4}°$ Spheroid as an auxiliary, with its special Calendar and Cycle.

How this Scheme works, and even produces results expressible in terms almost identical with those of modern reckoning, I have tried to show by concrete examples.

Given the known particulars regarding any Sōthic-Rising, or Feast, found inscribed on a monument, or otherwise recorded amongst the vestiges of the remote Romic past —even if they consist of bare Calendrical data like "21

Epiphi," *supra*—and provided such particulars can be connected with the above-mentioned Scheme, it should now be quite possible, indeed easy (save for the arithmetic involved), to fix the place of that Rising, or Feast, in whatever Cycle it may chance to belong to, *i. e.*, whether of the 360°, the 364°, the 365°, or the 365¼° Spheroid, and even, on the basis of the last-mentioned, to present it in terms of modern reckoning, in every case exact, at least to the year, nay, in some cases (those where the desired date is said to have coincided with a *Sed* or *Hunti Heb*, *i.e.*, with one of the spheroidal years on my General *Heb* and Rising Lists) exact to the fraction of a year. Of course, if a mere Calendrical datum, so found, cannot be switched on to the above Scheme, and thus related to some "Manifestation," or Feast, it would be impossible, without supplementary data, to put it on any Cycle, or state it in terms of modern reckoning.

With regard to any *future* discovery in the shape of an ancient Romic date, provided the datum is already connected, or can be connected, with some "Manifestation," or Feast, and that sufficient is otherwise known to enable us to decide what the Cycle was and whether it was based on the 360°, the 364°, the 365°, or the 365¼° Spheroid, it should be an equally simple matter to determine any such date's place on the Cycle, and to state it also in terms of modern reckoning, and with a like degree of precision.

It may be well to repeat that every one of the Rising, or Feast, dates mentioned in Petrie's List—and as many others of the same kind, before and after them, as we care to follow out—can be got without trouble by simply restoring to my General List of Rising, or Feast, Dates in a Cycle, applying it to as many Cycles as we desire, and there ticking off every 7th date from *zero* in each Cycle. In brief, those General Lists are a check upon, and a final Court of Appeal for, whatever results we arrive at when interesting ourselves only in Petrie's List.

Lastly, I am no arithmetician. All calculations *supra* are only my own rough way of working ideas out. Doubtless they can be improved and simplified. Possibly, as they stand, they need correction.

The annexed Diagram may be of use in following the statements and arguments above submitted.

ON THE CULT OF GORAKSHANATHA IN EASTERN BENGAL.

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Section I.

Introduction.

In an agricultural country, where the mass of the population earn their livelihood by following agricultural pursuits, the possession of cattle is regarded by them as a valuable asset. These animals afford them help not only in the shape of plough-cattle and beasts of burden, but are also a source of valuable food-supply to them, in as much as they furnish them with milk, butter and curds. It is for this reason that cattle are so dear to the hearts of, and are so much venerated by, the peasantry of the countryside. It is for this reason also that these agriculturists have devised, from time immemorial, many quaint rites and curious ceremonies for ensuring the health and general welfare of their cattle as also for securing a profuse yield of milk by these beasts. It has, therefore, been very aptly said that these rites and ceremonies are "the rustic expression of the affection and respect paid by the peasant to his cattle so essential to agriculture."

Among these rites and ceremonies may be mentioned (*i*) the invocation of the assistance of the tree-spirit or plant-spirit, and the placing of the cattle in contact with, or the causing of the latter to pass under, branches, twigs and leaves of the trees and plants which are either the

embodiment or habitations of the tree-spirit or plant-spirit; (*ii*) the worship of snakes with prayers and offerings of milk and curds; (*iii*) the worship, in the same way, of certain godlings like Dum and others among the hill-people of the Western Himalayas, that of the Earth-goddess or Earth-mother in Bengal and Bihar; and that of the Fire-god; and (*iv*) the worship, in the same way, of some deified saint or ascetic.

Section II.

The Vegetation-Spirit as a Protector of Cattle.

I shall, first of all, deal with the ceremonial rite (*i*) mentioned *supra*. According to the doctrine of Animism or the belief in spiritual beings pervading nature, which has been propounded by Sir E. B. Tylor in his great work on *Primitive Culture*, and which forms one of the outstanding features of the philosophy of the Lower Culture, (*a*) inanimate objects are believed by primitive men to be the embodiments or manifestations of spirits, or (*b*) they are believed by them to be the habitations of spirits which can detach themselves, more or less, from their places of abode, and which, if they can be seen at all, may be seen in other shapes and guises.

According to this animistic frame of mind, trees and plants appear to the uncultured folk to be the embodiments or habitations of the tree-spirits or plant-spirits, which are believed by them to possess considerable power for good, or magical virtue. It is further believed by them that these vegetation-spirits can exercise this power or virtue for ensuring the general welfare of cattle.

To begin with Europe, we may mention that, in Westphalia and Dalecarlia, the peasantry believe that the mountain-ash and the rowan-tree are the embodiments of the aforementioned tree-spirits which exercise considerable beneficent influence on cattle and can cause the latter to yield plentiful supplies of milk. As the result of this belief, they

perform the undermentioned rites. On the 1st of May (in Westphalia), and on or about the Ascension Day (in Dalecarlia), they ceremonially beat young heifers with a branch of the mountain-ash or rowan-tree. They subsequently stick up this branch on the roof of the cow-pen or upon the top of a haystack, in which places it is allowed to remain throughout the summer. Then again, at the time of striking the young cattle with a branch of either of the aforementioned trees, the Westphalian peasantry recite the following charm-formula, which has obviously sympathetic magic as its root-idea: "As sap comes into the birch and beech, and as the leaf comes upon the oak, so may milk fill the young cow's udder."

Then again, under the influence of the aforementioned animistic belief, the uncultured folk throughout the British Islands regard the mountain-ash, rowan-tree, wicken-tree and whitty-tree in the light of protectives against witchcraft, and strike beasts with a branch of any one of the same, by doing which they believe that their cattle will remain hale and hearty.

It is further pointed out that, in the Vedas of the Indian Aryans, a ritual similar to the one in vogue in Westphalia and Dalecarlia, has been prescribed in order that it might be performed at the new moon (Kuhn's *Die Herabkunft des Feuers*, page 161).[1]

I may state here that, by striking the heifers with a branch of the mountain-ash or rowan-tree, the Westphalian and Dalecarlian peasant-folk enact the pretence of placing their beasts in contact with the latter's beneficent tree-spirit or plant-spirit; and that, in order that this vegetation-spirit might continue to shed his beneficent influence upon their cattle, they subsequently instal him on the roof of the cow-pen or on the top of the haystack by sticking up his symbol—the

[1] *The Hand*, by C. S. Burne, London; Sidgwick and Jackson, Ltd, 1914, p. 32.

branch of the tree they have used—into either of these two places.

Coming to India, we find that the vegetation-spirit resident in the mango-tree is looked upon by the peasantry as a scarer of evil spirits and influences. It is for this reason that a branch or twig of the mango-tree is used for making the aspersion at rural ceremonies. Wreaths made of its leaves are hung upon the occasion of *pūjās* and other festive celebrations, on the house-door. In Rohilkhand, on the occasion of the *Ākhtij* festival, the cultivator goes at day-break, to one of his fields, taking with him a brass *lota* full of water, a branch of the mango-tree and a spade. The attendant priest, then, makes certain calculations and ascertains the spot where the first digging should be done. This having been made, the peasant digs up *five* clods of Earth with his spade, and, then, sprinkles the water from the *lota*, *five* times *with the branch of the mango-tree*, into the trench.[1]

The vegetation-spirit resident in the mango-tree is also believed by the uncultured peasantry of the Indian country-side to exercise a beneficent influence upon cattle and to preserve them from all assaults of the malignant spirits. In this case, the cattle are not actually placed in contact with a branch or twig of the mango-tree as being the dwelling place of the vegetation-spirit; *but these beasts are made to pass under a rope made of twisted grass or straw into which mango-leaves have been strung.* For instance, at the Pola festival held in Berar, *the bullocks of the whole village are led in procession under a sacred rope made of twisted grass and covered over with mango-leaves.* The performance of this little rite is believed to protect the cattle from diseases or accidents.[2] Then again, wherever cattle-murrain breaks out in Northern India, *it is a common pratice for the peasant-folk*

[1] *An Introduction to the Popular Religion and Folklore of Northern India*, by W. Crooke B.A., Allahabad, 1894, pp. 369-370.

[2] *Op. cit.*, p. 377.

to hang up a rope of straw into which mango-leaves have been strung over the roadway by which the cattle enter or leave [1] *the village on their way to the pasturage-lands.*

Sometimes, the cattle are actually placed in contact with the vegetation spirit resident in the mango-tree by wreaths of mango leaves being hung round their necks, as is done on the occasion of the *Pongal* or *Pungal* festival in Southern India. This festival is performed on the same day as that on which the Makara Sankrānti festival is celebrated in Bengal, Bihar, and Orissa. On this day the sun enters the sign Capricornus (Makara), which is identical with the Uttarāyana or return of the sun to the north or to the winter solstice. It usally falls on the last day of the Bengali month of Pausha (December-January).

On the Pongal day, the cattle are adorned with garlands, their horns are dyed with colours, and *wreaths of mango leaves are hung round their necks.* Then they are led round in procession, exempted from all kinds of work and are virtually if not actually worshipped.[2]

Section III.

The Snake, the Tortoise and the Bee as a Protector of Cattle.

Then I shall take up for discussion the rites and ceremonies which are classifiable under head (*ii*), namely, the worship of snakes with prayers and offerings of milk and curds.

The hill-people living along a portion of the Hindustan-Tibet Road and in the neighbouring States in the Western Himalayas, have, from the earliest times, regarded the snake godlings as the protectors of their milch cattle. These serpent-deities are therefore, amongst the most esteemed objects of

[1] *Op. cit.*, p. 378.

[2] Vide *An Alphabetical List of the Feasts and Holidays of the Hindus and Muhammadans.* Calcutta, Superintendent, Government Printing, India, pp. 55-56, 1914.

worship to these people. But this portion of the snake-godlings' duty has been partially usurped by some newly-come godlings, the result of this being that, at the present day, the protecting godling of a cow is either a deity of the orthodox Hindu Pantheon or a Musalmān saint. Notwithstanding the aforementioned usurpation of his function, the *Nāga* or the snake-godling is, even now, looked up to and worshipped in many localities, as the guardian-spirit—the protector, *par excellence*, of cattle. This will be evident from the fact that there is one snake-godling who is credited with the possession of such potent influence for good to cattle that, if an offering is presented within view of his temple, though it may be located on some hill-top many miles distant from the place of the actual offering, this little act of propitiation results in restoring the yield of milk to a cow who has ceased to give it.

The cow-protecting function is performed not only by the snake-godlings of the hill-people in the Western Himalayas, but also by the *sinhas* or the snake-deities of the Panjab, who are believed to exercise considerable beneficent influence upon milch cattle. For this reason, these latter are worshipped with offerings of milk. As the result of the veneration shewn to them, the milk yielded by the cow on the eleventh day after calving must always be offered to them ; whilst libations of the other days' yields of milk always come as welcome additions to the snake-deity's larder.

In the same way, on the occasion of the Nagapaṇchamī, a worship-festival which is held for the propitiation of the snake-godlings, "the cattle are included in the celebrations by being given a welcome and much-needed day of rest."

Strikingly similar to the foregoing customs is that which has been described by Mrs. Steel in the *Punjab Notes and Queries* for March, 1885, and which is as follows :—

The snake-godling is worshipped by men of all castes and creeds during a period of nine days in the month of Bhadon

(August-September). Mirasans fashion a snake out of dough, paint it red and black, and, thereafter, placing it upon a winnowing-basket, carry it from house to house throughout the village. This counterfeit presentment of the snake is afterwards buried in the earth ; and a grave-mound is raised over its place of burial. Over this grave, the womenfolk worship the buried snake-godling during the whole period of nine days that the festival lasts. The night before, they set a basin of curds, as if for churning butter. But, on the next morning, instead of churning these curds, they take the same to the snake-godling's grave. Arrived there, they kneel down upon the grave, and, touching the ground with their foreheads, present a little of these curds by way of offering to the snake-godling. This done, they return home and distribute the rest of the curds to their children. But, on that day, they do not prepare or partake of butter.

Mrs. Steel further says that she has come across positive evidence of this worship of the snake-godling being performed in three districts of the Panjab, but believes that it is widely prevalent throughout that Province.

Then again, she says that " the members of the snake tribe " not only worship the snake-godling in the same way, every morning after a new moon, but also observe the Monday and the Thursday in every week as holy days in honour of the said godling. On these days, they cook rice and milk which they present to the snake-godling by way of offering. But they themselves do not prepare or partake of butter on these days.

On comparing the afore-mentioned customs connected with the worship of the snake-godling, we find that there is a good deal of similarity—we might almost say a striking coincidence—between them all. This similarity or coincidence can scarcely be accidental. On the contrary, we may safely broach the hypothesis that, in the remote past, *there was a wide-spread belief that snakes not only controlled the*

secretions of milch cattle, but had also some peculiar claim to them." [1]

In the district of Murshidabad in North-Western Bengal, it is believed that tortoises and bees also exercise a beneficent influence upon cattle and keep away all evil from the latter. Under the influence of this belief, the milkmen and cowherds of that part of Bengal place the shell of a tortoise or a bee-hive in the cattle-pen so that the spirit of this reptile or of this insect may remain in contact with the cattle and thereby protect the latter from all possible sorts of harm.[2]

Section IV.

The Godlings of the Hill-people of the Western Himalayas, the Earth-Goddess and the Fire-god as Protectors of Cattle.

I shall not take up for discussion the worships of the cow-protecting deities which have been classified under head (*iii*) *supra.*

The majority of the people who live along a portion of the Hindustan-Tibet Road and the neighbouring states in the Western Himalayas, belong to the Kanet caste ; whilst the Kolis are chiefly the descendants of the aboriginal tribes living in these regions.

Now, there is a wide-spread belief among the Kanets that, if a man drinks the milk of his own cow, or gives it away to another person to drink, his '*deotā*' or godling will be exceeding wroth with him and punish him for this transgression. But if he prepares '*ghi*' or clarified butter from the milk of a cow belonging to himself, or if he sells or partakes of this '*ghi*,' no evil consequences will accrue to him therefrom.

[1] *Vide* the article entitled : "*Himalaya Folklore, VI. A Milk Superstition*" at page 6 of the *Pioneer* (Allahabad daily) for Saturday, July 26th, 1913

[2] *A History of Murshidabad District (Bengal)* ; by Major J. H. Tull Walsh, I.M.S., F.L.S , London : Jarrold and Sons, 1902, pp. 89-99.

Now the question arises: Who is this '*deotā*' or godling ?

The answer to this question is that the Kanets believe that each cow has a protecting godling or guardian-spirit who is the family god, not of her owner, but of herself and of her descendants. The cow remains subject to the sway and control of her ancestral godling, but not to that of the godling of her domicile. This is the practical result of the principle according to which a deity or godling is believed to exercise sway and control over all these objects over which he had, at some previous time, exercised his dominating power. In this way, the cow's protecting godling gains his entry into villages whereof the inhabitants have never paid their devoirs to him in past times, nor are desirous of doing so in times to come. It has, therefore, been aptly said that " the god holds what the god held " is the guiding principle—the motto—of the divine beings in the Himalayas.

The protecting godlings of the cow may be divided into three groups or classes. The first group insist on exacting their rights and privileges to the fullest extent, and prohibit their votaries to partake of or sell the milk or curds of their own cows, but allow them to make '*ghi* ' or clarified butter out of the said milk, and to sell or partake of this '*ghi*.'

A typical example of this group is the godling named Dum who exercises his dominion over the localities situated all round Narkanda on the Hindustan-Tibet Road.

The second group of godlings are satisfied if only their worshippers formally recognise their rights and privileges. Whilst the third group permit their votaries not only to freely partake of the milk and curds of their own cows, but also to give away or sell the same to other persons.

As an illustration of what has been stated above regarding a cow's carrying her ancestral protecting godling into her place of domicile, we may say that, if the descendant of a cow, who was, at some previous time, owned by a votary of the godling, Dum passes into the possession of a person

who lives many miles outside the limits of Dum's jurisdiction, the same taboo against her present owner's selling or partaking of her milk or curds holds good, ever though several generations might have passed away since the original stock was imported.

It is further stated that one, now-a-days, rarely comes across the most stringent form of the taboo imposed by the godling Dum. But modified forms of it are to be met with throughout the Western Himalayas. Whilst survivals of this custom can be found in the plains of Hindustan.

Among the modified forms of the custom referred to *supra*, is the under-mentioned one which is in vogue in the Simla hills :—

After a cow has calved, she is not milked until the fourth day. Afterwards, the milk drawn from her is poured into a vessel and allowed to curdle. When the milk has curdled firmly, it is presented by way of offering to the cow's protecting godling. Milk, curds and clarified butter are poured by way of libation upon the head of the godling's image. Then incense is burnt ; and flowers and sweetened bread are placed before this idol. The cow's owner, then, recites a prayer to the effect that his cow and her calf may thrive well and, at the same time, solicits the godling's permission to freely partake of or sell his animal's products in the future. The sweetened bread is partaken of by the votary himself. Thereafter he sacrifices a goat. When this sacrifice has been offered up, he takes for granted that the cow's protecting godling has granted him the asked-for permission to use his cow's milk, curds and '*ghi*' in any way he likes.

In as much as the majority of the cattle belong to local breeds, the afore-described rites are generally performed inside the village-temple. But when the cow or her progenitor has been imported, a cairn of stones is erected to represent her protecting godling. Thereafter the goat is sacrificed, and the votive offerings are presented to his deityship.

In those cases where the local temple is situated at a distance, the offerings are poured over the horns of the cow herself. This procedure is always resorted to in those cases where, though the cow is known to belong to a foreign breed, all knowledge of her protecting godling has been forgotten.

The ceremonies performed in Chamba in connection with the propitiation of the cow-protecting godling are pretty nearly the same as those observed elsewhere. Each cow has a protecting godling which called her '*jakh*.' The offerings are always presented to this godling. But it is stated that the period of the prohibitory taboo against using the cow's products may last from a few days to six months or more, not in accordance with the godling's dispensation, but at the sweet will and pleasure of the animal's owner. During this period of prohibition, however long it may be, the owner or his family does not partake of or sell the products (including '*ghi*') of the cow, until the prescribed ceremonies have been performed and thereby the taboo has been put an end to.[1]

Now, I shall deal with the worship of the Earth-mother or Earth-goddess for ensuring the general welfare of cattle.

In Greek mythology, Demeter (Terramater)—" the fruitful soil "—is the later name of the classic Earth-goddess Gaia; and a pig used to be sacrificed for the purpose of propitiating her.

In Hindu mythology, Prithivi, "the wide, extended world," which in the Vedas, is personified as the mother of all things, appears to exercise a beneficent influence upon cattle. I am inclined to think, on a consideration of the evidence embodied in the undermentioned ceremonies, that in India also, Prithivī or the Hindu Earth-goddess requires the sacrifice of a pig for propitiating her so that she might confer on cattle the boons of health and fecundity. I also

[1] *Vide* the article entitled: "*Himalaya Folklore, VI, A Milk Superstition*" at page 6 of the *Pioneer* (Allahabad daily) for Saturday, July 26th, 1913.

think that from this idea has originated the Indian ceremony of getting a pig gored to death by cattle, as in Bengal and Bihar, and that of burying a pig up to its neck in the Earth and driving the cattle of the village over its head, which is ordinarily performed in connection with village-festivals in the Telugu country.

The ceremony as performed in Bengal is that, on the last day of the Bengali month of Kārtika (October-November), the Goālās or the cowherds let loose a pig which a herd of cattle is goaded on to gore to death. When the pig is killed by the bullocks and buffaloes, its carcase is given to the Dusādh menials of the village to eat, whilst the Goālās themselves do not partake of its meat.[1] In Bihar, this sacrificial rite is known as the *Gaidāra* ceremony of the Ahirs or the cowherd caste and is performed on the day next to the *Diwāli* which comes off on the fifteenth day in the dark fortnight of the Hindi month of Kārtik (October-November). In Bihār, however, the pig is not let loose but is tethered to a stake driven in the ground, so that it has no chance of escaping from the infuriated cattle.

In the Telugu country in Southern India, whenever an epidemic of cattle-disease breaks out, a pig is buried up to its neck in the earth at the boundary of the village, and a pile of boiled rice is placed close to this spot. Thereafter all the cattle of the village are driven over the head of the half-buried pig. But, in the village of Gudivada in the Telugu country, nothing is sprinkled on the cattle as they pass trampling upon the pig, as it is customary to do in other localities in the same part of Southern India.[2]

Bishop Whitehead of Madras has, however, described another instance of the custom of burning pigs as follows:—

[1] Crooke's *An Introduction to the Popular Religion and Folklore of India*: (Allahabad Edition of 1894), page 377.

[2] *Bulletin of the Madras Government Museum* (*Anthropology*). Vol. V, No. 3, Madras: 1907, page 137.

"Since writing this account of the ceremony, I have come across another instance of pig-burning in the Kurnool district. While I was on tour there in March last, an old man described to me the account he had received from his 'forefathers' of the ceremonies observed when founding a new village. An auspicious site is selected and an auspicious day, and then in the centre of the site is dug a large hole in which are placed different kinds of grain, small pieces of the five metals, silver, copper, iron and lead, and a large stone called Boddurayée (*i.e.*, navel-stone), standing about three-and-a-half feet above the ground, very like the ordinary boundary-stones seen in the fields. *And then, at the entrance of the village, in the centre of the main street, where most of the cattle pass in and out on their way to and from the fields, they dig another hole and bury a pig alive* * * * *. *The pig may be buried at the entrance to the village as the emblem of fertility and strength to secure the prosperity of the agricultural community, the fertility of the fields and the health and fecundity of the cattle.*"[1]

On a careful study of the aforementioned ceremonial rites, I find that, in the two ceremonies from Southern India, the act of burying the pig in the earth symbolizes the fact of its being placed as an offering before the Earth-goddess; while the fact of its being trampled to death by the cattle symbolizes the fact of its being sacrificially killed. In the ceremony from Bihār, the act of tethering the pig to a stake driven into the ground symbolically represents the fact of its being laid as an offering before Prithivī, the Earth-goddess; while the fact of its being gored to death represents the act of sacrificially slaying it. In the ceremony from Bengal, the act of presenting the pig by way of offering to Dharitrī, the the Earth-mother, is simply represented by letting it loose; while the act of sacrificially killing it is represented by the fact of its being gored to death by the cattle.

[1] *Op. cit.*, p. 186.

We have come across one instance in which the assistance of Agni the Fire-god is invoked for the purpose of "burning and dispelling evil spirits and hostiles magic" from cattle, that is to say, for ensuring the general welfare of these beasts. The same idea is expressed in a saying which is current in the "farthest Hebrides" to the north of Scotland, and which runs to the effect that "no evil comes from fire." This custom prevails in the island of Man in the vicinity of England, where the Manx dealers in cattle cause their animals to pass through fire on May-day, so that they might get singed by the fire a little and thereby be preserved from harm.[1]

In the Bombay Presidency, all domestic animals are worshipped on the first day of the month of Margashirsh (November-December). On which days all the beasts are bathed with hot water and dyed with red paints. Then a lighted lamp is waved before their faces. They are also fed with dainty food as it is considered to be their gold day.

In the Konkah also, which is a distrkt of the some presidency cattle are worshipped on the first day of Kārtika *and are made to pass over a fire.* This is assuredly done under the idea that the contact with fire will drive away all evil influences or deseases from them.

The folklore of Bombay. By R. E. Enthoven C. I. E. Printed at Oxford at the Clarendon Press, 1924, page 221.

This is closely similar to the ancient British custom according to which, in times of Epidemics, a "need-fire" was kindled, and both men and cattle were driven through it as a protective against the attack of the disease.[2]

I am inclined to think that an idea closely akin to the foregoing one, namely, that of a priest vicariously burning himself in order to burn away the sins committed by and the

[1] Crooke's *An Introduction to the Popular Religion and Folklore of Northern India* Allahabad Edition of 1894), p. 377.

[2] *The Childhood of the World*, by E. Clodd, New Edition, London, Macmillan and Co., Ltd, 1914, p. 130.

evils and misfortunes impending over, his disciples or clients, underlies the custom in accordance with which *two* Kherapat or Panda at Mathura walks through the Holi-fire or, at least, makes a pretence of passing through it.[1]

This conception of the Fire-god's function has been prevalent from Vedic times. For, in the Veda, it is stated that "Agni drives away the goblins with his light and receives the epithet *rakshohan*, 'goblin-slayer.' When kindled, he consumes with iron teeth and scorches with heat the sorcerers as well as the goblins, protecting the sacrifice with keen glance. He knows the races of the sorcerers and destroys them."[2]

I am also of opinion that the same idea that runs through the Man and Indian Customs likewise underlies the symbolical fire-ceremony which is performed at the Tibetan New Year Festival and which has been described by Dr. Sven Hedin as follows :—

"At length, the lictors clear a space in the crowd below us, where a fire is lighted. Two monks step forward and hold a large sheet of paper horizontally over the fire at as great a height as possible; *on this paper are written down all the evils from which protection is during the year now commencing, and all the affairs in which a triumph is hoped for over the designs and influence of wicked demons. The paper also represents the past year with all its sufferings and all its sins.* A lama walks up to the fire with a wand in one hand and a bowl in the other. He recites some formulae of incantation, performs all kinds of mystical *hocus-pocus* with his arms, and throws the contents of the bowl, some inflammable snuff, into the flames, which blaze up brightly and *consume in a moment the paper, the passing year with its sins, and all the power of the demons. All the spectators rise and break out into prolonged shouts of rejoicing, for now evil is*

[1] *Op. Cit.*, p. 390.

[2] *Vedic Mythology*, by A. A. Macdonell, Strassburg, Verlag Von Karl J., Trübner, 1897. p 95.

crushed and every one may rest in peace. The last number of the days programme was a general dance of all the lamas in the courtyard."[1]

Section V.

The Deified Ascetic Gorakshanāth as a Protector of Cattle in Pābnā.

I shall now take up for discussion the worship of some deified saint or ascetic (classified under head iv) for the purpose of insuring the health and welfare of cattle.

In this connection, it will not be out of place to mention here that, in Europe, the village-priest is employed to perform what is known as the ceremony of "blessing the cattle." In Valais in Switzerland, during the spring, every year, the village-priest is employed by the heardsmen of the Alps to "bless the cattle." (*Vide* the illustration entitled : "*Blessing the Cattle, Spring Time, Valais*" at page 1116 of Vol. II of Hutchinsons' *Customs of the World.*) The same ceremony is also performed in Italy.[2]

This latter ceremony is perhaps identical with that which is celebrated at Rome on St. Anthony's Day on which occasion the cattle are sprinkled with holy water and blessed by the priests. It is also referred to in the following verse :—

> "Yet to me they seem'd crying, alack, and alas.
> What's all this white damask to daisies and grass ?
> There they're brought to the Pope, and with,
> transport they're kiss'd
> And receive consecration from Sanctity's fist."[3]

[1] *Trans. Himalaya* (Discoveries and Adventures in Tibet), by Sven Hedin, in two Volumes, London, Macmillan and Co., Ltd., 1909, Vol. I, pp. 314-315.

[2] Crooke's *An Introduction to Popular Relegion and Folklore of Northern India*, (Edition 1894), p. 378.

[3] *Supplement to the Glossary of Indian Terms*, by H. M. Elliot, Agra, 1845, p. 351.

The idea underlying this ceremony of "blessing the cattle" appears to be that these animals may remain immune from diseases, the malignant influence of molestant spirits, and all other physical and moral evils, during the year to come. The same intention also appears to be present in the undermentioned old English custom which has been described by Aubrey in his "*Remaines of Genti-lisme and Judaisme*":—"In Somersetshire, where they wassaile (which is on, I think, Twelfe Eve) the ploughmen have Twelfe cake, and they go into the ox-house to the cattle, and drink to the ox with the crumpled horne that treads out the corne."

With reference to the subject of worshipping ascetics and saints, I may state that, in India, some of these holy personages have been apotheotized and are regularly worshipped. To mention a remarkable instance, I may cite the case of the sage Vyāsa, the reputed author of the famous Indian epic—the Mahābhārata. He has been deified in Southern India and is worshipped there on the full-moon day in the Hindu month of *Āshāḍha* which is called *Adi* in Tamil and which corresponds to the English months July-August. This deified sage is worshipped only by the *Sannyāsīs* and other persons who have renounced the world and its joys, with the object of securing the general welfare and prosperity of mankind at large.[2]

Then coming to Northern India, we find that, in the district of Pābnā in Eastern Bengal, the village-folk believe that if the *vrata* or ceremonial worship of the godling Gorakshadāra or Gorakshanātha (who, as I shall presently show, is a deified ascetic) be performed on the first Sunday after the expiry of 30 days from the day on which a cow has given birth to a calf, the cow's milk would increase and that no maliciously-disposed person would be able to do any harm to the cow and her calf by casting spells on them.

[1] Crooke's *An Introduction to the Popular Religion and Folklore of Northern India* (Allahabad Edition of 1894), p. 378.

[2] *South Indian Festivities*, by P. V. Jagadisa Ayyar, Madras: Higginbothams, Ltd., 1921, p. 85.

The short procedure for performing this ceremonial worship may be described as follows :—

The whole of one day's yield of milk by the cow who has just calved, is heated over a fire and stirred with a ladle until it is reduced into a mass of clotted cream. This clotted cream is then sweetened with sugar and made up into (*a*) figurines of the cow and her calf; (*b*) *lāḍus* (or cream-and-sugar balls); (*c*) *Svastikas* (or sweetmeats shaped like fly-footed crosses); (*d*) and the like. Thereafter in the evening of that day, these figurines and sweetmeats together with some offerings of *khājās* [(खाजा), a kind of sweetmeat], and *bātāsās* [(बाताषा) or sugarwafers which have been previously dedicated to the god Hari (or Vishṇu)] are presented by way of offering to the godling Gorakshadāra or Gorakshanātha.

When this *vrata* or ceremonial worship has been finished, one of the celebrant-boys dresses himself up in the garb of a cowherd, wraps up in a plantain-leaf the flowers and the blades of *durbbā*-grass that has been used in this worship, powdered rice, and the figures of the cow and her calf that have been fashioned out of the aforementioned clotted cream; and thereafter conceals the same on a corner of the cow-pen.

Afterwards, other boys of the celebrant-party, who are of the same age as that of the one who had rigged himself out as a cowherd-boy, try to throw the latter into the same neighbouring sheet of water, and, in this way, cause him no end of trouble. As the result of their trying to throw him into deep water, a quarrel, sometimes even a hand-to-hand fight, ensues, so much so that elderly people have to intervene and separate the fighters. After the hand-to-hand fight is over, the undermentioned *pānchālis* or folk-ballads,[1] of which the texts in Devanāgarī script and the translations

[1] The texts, in Bengali characters, of these eight folk-ballads have been printed at pages 65-68 of the Bengali monthly magazine *Prabasi* (published from Calcutta) for Kārtik 1329 B. C. (October-November 1922 A. D)

into English are published, for the first time, in the Appendix hereof, are chanted by one or two of the afore-mentioned boys, while the other boys respond to the bars of the ballads that have been sung by the former, by shouting out the chorus-word "*Hechha*" (हेच्च).

Now the question arises: How has the godling Gorakhnātha or Gorakhdāra been evolved?

In order to answer this question, we shall have to examine the different legends that are current about the saint Gorakhnātha. (1) One of these runs to the effect that when the Pāṇḍava King Yudhishṭhira's brother Bhimsena was sent to the snowy Himālaya, he was so benumbed with the cold of that region that he lay upon the ground like one dead. But he was restored to vitality by the saint Gorkhnātha, and made King of one hundred and ten thousand hills, extending from the source of the Ganges to Bhutan. It is further stated that Bhimsena and Gorakhnātha introduced the sacrifice of buffaloes in lieu of that of human beings. In order to initiate this reform in the ritual of sacrifices, Bhimsena is said to have thrust some flesh down the saint's throat. In consequence of this, both of them lost caste; but they were subsequently deified.[1]

(2) The second legend represents Gorakhnātha as a famous ascetic whose shrine is often found in North-Western India, associated with that of Narasinha or the Man-Lion Incarnation of Vishnu, and with that of Gugā Pir or Lāhir Pir "the Saint Apparent" who flourished about the middle of the 12th Century A. D. and who is said to have been a disciple of that famous saint.[2]

(3) The third legend represents him as an ascetic named Gorakshanātha or Gorakhnātha who was born in a village in that part of North-Eastern India which is now known

[1] Crooke's *An Introduction to the Popular Religion and Folklore of Northern India* (Allahabad Edition of 1894), p. 55.

[2] *Op. cit.*, p. 133.

as the United Provinces of Agra and Oudh. This village was subsequently named after him Gorakhpur. His father was a cowherd of great piety. Like other village-boys, he also used to tend cattle. One day, while he was grazing his herd of cows and buffaloes in the forest, a very holy and pious *Sannyāsi* or ascetic appeared before him. Seeing this ascetic's noble bearing, the boy Gorakhnath bowed low, and, touching the former's feet with his head did obeisance to him. When the *Sannyāsi* asked for some food from him, the latter drew some milk from one of his cows in a cup of *sal-leaf* and offered it to the former to drink. Quaffing it off, the ascetic became highly pleased with the boy Gorakhnātha who, in his turn, was greatly delighted by keeping company with the former.

Subsequently, when the *Sannyāsī* wanted to present the cowherd-boy with some gifts, the latter made up his mind to beg from him something that others did not possess. But, at last, being unable to decide what gift he should ask for, he requested the former to give him such a present as he might deem fit and proper. In reply to his request, the ascetic said : "You will certainly get the best of gifts. But you will have to wait one week for it." Gorakhnātha having agreed to this condition, the *Sannyāsī* vanished.

With great pains and after a good deal of suffering, the boy Gorakhnātha tried to carry out the ascetic's behest, and, in this way, came to be looked upon as a lunatic by his kinsmen and neighbours.

On the sixth day, the *Sannyāsī* reappeared and was greatly pleased to find that the cowherd-boy had resolutely carried out his promise. Gorakhnātha's relatives, with the palms of their hands joined together, entreated the ascetic to cure the boy of his malady. Having consented to do this, he said to them : "When the boy will recover from his malady, you will have to give him up to me, so that he may be enabled to lead the life of a *sādhu*."

At the time when this incident occurred, men, who had 4 or 5 sons, readily permitted one of these latter to become a *sannyāsī*. In compliance with this custom, Gorakhnātha's parents made over their son to the ascetic's care.

Thereafter, Gorakhnātha recovered from his malady and remained, for some time, with his parents. But, subsequently, he left his paternal home in the company of this *Sannyāsī*. Afterwards he was initiated by the ascetic and began to perform austere penances with the greatest of devotion. In a short time, he acquired great reputation for sanctity and piety and was, ultimately, venerated as a great and mighty *sādhu*.

On a careful study of the three foregoing legends, I am of opinion that the godling Gorakshadāra or Gorakshnātha of Pābnā in Eastern Bengal is a deification of the famous ascetic of that name who was born at Gorakshpur in the U.P., and that this deity's reputation as the guardian-spirit of milch-cattle has been derived from the fact that his antetype Gorakshanātha of Gorakhpur—was the son of a pious cowherd and, as such, must have had great affection for, and solicitude for the welfare of, cattle in general. As, from the remotest times, there must have existed, by way of North Bihar, Purneah and Malda, considerable intercourse between the people of Eastern Bengal and those of the Eastern parts of the U. P. which are conterminous with North Bihar, the cult of Gorakshadāra or Gorakshanatha, which is prevalent in the districts of Pabna in Eastern Bengal and of Murshidabad in North-western Bengal, must have been derived from immigrants from the U. P.

Then, on a study of the ritual connected with the worship of the godling Gorakshanatha, I have come across the under-mentioned noteworthy features thereof :—

(*a*) The making of sweet-meats and the figurines of a cow and her calf from the clotted cream prepared with the milk of the cow who has calved and for whose welfare the

worship is being performed; and the offering of these sweet-meats and figurines to the godling for his propitiation.

(*b*) The wrapping-up, in a plantain-leaf, flowers, the blades of *durbbā*-grass and the figurines of the cow and the calf, that have been used in the *pūjā*, and the concealment of this package in a corner of the cow-pen.

(*c*) The hand-to-hand fight between the boy who rigs himself out as a cowherd, and the other plays of the party, after the worship has been finished.

With reference to the point (*a*) *supra*, I may state that milk is one of the most valuable products of the cow, and that nothing is better calculated to propitiate the godling than an offering of this most valuable product of the animal for ensuring whose welfare the *pūjā* is being celebrated. The intention underlying the offering of the figurines of the cow and the calf appears to be that the beasts themselves, for whose welfare the worship is being performed, are being symbolically sacrificed to the deity.

Referring to the afore-mentioned feature (*b*), I may say that the spirit of the godling Gorakshanatha has entered into the flowers, the *durbbā*-grass, and the figurines of cl otted cream that have been used in his *pūjā*. By concealing the package containing the afore-mentioned *pūjā*-offerings in a corner of the cow-pen, the spirit of the godling is, as it were, installed in the cattle-shed so that, by remaining in contact with the milch-cattle, the deity may exercise his beneficent influence upon them.

The Bengali practice of concealing the package of *pūjā*-offerings in a corner of the cow-pen has a curious parallel in the aforedescribed rite, as practised in Westphalia and Dalecarlia in Europe, of sticking up the branch of the mountain ash or rowan-tree with which the milch-cattle have been beaten, on the top of the cow-pen or upon a haystack.

The same idea also appears to underlie the under-described ceremony which is celebrated, in Hoshangabad in the Central

Provinces of India, for ensuring the general welfare of cattle:—Everybody remains awake throughout the night. The cowherds band themselves together and go about singing and begging for alms, and thereby prevent the cattle from going to sleep. When the day dawns, they stamp the white-skinned cattle with the hand deeped in yellow dye, and the red-skinned ones with the hand daubed with white paint. Then they tie strings of cowry-shells or peacock-feathers on the horns of their animals. Similarly, on the occasion of the *Gopāṣṭamī* festival which is held on the 8th day in the bright fortnight of the Hindi month of *Kārtik* (October-November) as well as on the *Godhana* (*Govardhana*) festival which comes off on the day next following the *Diwālī*, garlands are hung from the necks of cows; their horns, hoofs and bodies are painted; and thereafter obeisance is made to them.[1]

Thereafter the cattle are driven out of the cowpen with loud whoops or yells. As the last animal passes out of the doorway of the cattle-pen, a cowherd standing there throws an earthen-ware pitcher on the back of this beast and thereby breaks it into bits. The neck of this broken pitcher is subsequently placed upon the gateway which leads into the cow-house, in the belief that it would preserve the cattle from the evil eye. In the after-noon, all the cattle are massed together in one place where the Parihar priest sprinkles them with holy water, in consequence of which, they will be immune from all sorts of evils.[2]

In Hindu ritual the earthenware pitcher always represents the deity at whose worship it is used. I am, therefore, of opinion that the earthenware pitcher in the aforedescribed ceremony represents the protecting godling of cattle, that, by smashing it on the back of the last animal of the herd, the

[1] *Supplement to the Glossary of Indian Terms*, By H. M. Elliot, Agra, 1845, p. 351.

[2] Crooke's *An Introduction to the Popular Religion and Folklore of Northern India* (Allahabad Edition of 1894), pp. 376-377.

godling is placed in contact with all the beasts, and that, by subsequently placing the neck of the broken pitcher upon the gateway of the cow-house, the deity is permanently installed therein so that, by coming into contact with the cattle passing underneath, he may exercise his beneficent influence upon them.

The sprinkling by the Parihar priest of holy water upon the massed herds of cattle has an exact analogue in the Swiss and Italian rites of " blessing the cattle " which have been described *supra*.

As regards the point (*c*) mentioned *supra*, I am inclined to think that the boy who rigs himself out as a cowherd represents the godling Gorakshanātha the protecting deity of the cows; while the other boys of the party represent the malevolent spirits, who are ever on the look-out for working harm to the milch-cattle. The hand-to-hand fight symbolizes the fact that the maleficent spirits always try to get the better of the guardian-spirit of the milch-cattle, but that they are unable to do so, the struggle resulting in the victory of the deity over the powers of evil.

I shall now deal with the characteristic features of each of the eight folk-ballads published herein below.

The first ballad sets forth a simple invocation addressed to the godling Gorakshanātha, as also to the thirty (? thirty-three) millions of deities in the Hindu Pantheon.

In the second ballad the worshipper describes his own insignificance and expresses his inability to appreciate the godling Gorakshanātha's glory and greatness.

The third folk-ballad is a curious medley. In it, the cowherds are, first of all, called upon to invoke certain deities. In the next place, the worshipper describes therein the purchase, by himself, of a cow of the variety named *Kabila siri* who possesses the strange attributes of not yielding any milk whenever she is milked by a maternal uncle (*i.e.*, a mother's brother) and of giving an abundant supply of it whenever she

is milked by a sister's son. Perhaps this refers to some local belief of which I am not aware.

The fourth ballad embodies an exhortation to the cowherds to betake themselves to the cultivation of the jute-plant the tender tops of which will supply them with a delicious pot-herb for eating, and the stalks of which, when properly steeped in water and then dried in the sun, will furnish them with the fibre known as jute with which the strong ropes for tethering cattle are made.

In the fifth ballad, the worshipper describes how he arms himself with a bamboo-lāthi, takes his cattle to the pasturage for the purpose of grazing them therein, and thereafter brings them back home safe and sound.

The sixth folk-ballad describes the two-fold functions of the deity Gorakshanātha, *firstly*, that of giving his worshipper paddy-crops ; and, *secondly*, that of protecting his votaries' cattle. Now that the worshipper's cattle are away from the cattle-pen and have gone out to graze, the godling is off his duty as a cattle-protector and is, therefore, being invoked to utilize his off-time by playing the rôle of a giver of paddy-crops, that is to say, by supplying his worshipper with a bumper crop of paddy.

The seventh folk-ballad embodies an exhortation to the cowherds to worship the godling Gorakshanātha every year.

The eighth folk-ballad is another curious medley. In the first portion thereof the acquisition, by a woman, of a cow named Kabilāsa is described. It is further stated that this cow, after the expiry of the usual period of gestation, gave birth to a calf. Thereafter, a milkman is employed to milk her. While milking her, he dishonestly misappropriates a large quantity of the milk yielded by her, falsely accuses the cow of stealing her own milk, and then beats her. Thereafter he began to mix water with the cow's milk, for which nefarious act he is punished by being

metamorphosed into a skylark which always cries for rain water.

The content of that portion of this ballad which commences from line 38 and ends with line 51, seems to have no connection with that of the preceding part, as also with that of the lines 52-57.

Mention is made, in this ballad, of the two underdescribed interesting items of folklore. In line 19, the milkmen is described as offering the first stream of the cow's milk to the Earth mother. This custom is also prevalent in other parts of India. In the Panjāb, when a cow or she-buffalo is the first bought, or when she is milked, for the first time, after calving, the first five streams of milk drawn from her are allowed to fall down upon the ground by way of offering to the Earth-mother. On subsequent occasions of milking her, the first stream of milk is dealt with in the same way.[1] Acting on the same principle, the mighty Kublai Khan of Far Cathay used to sprinkle the milk of his mares upon the ground.[2]

It is stated that even at the present day, in some parts of England, when a cow is milked some drops of the milk are spilt on the ground. It is conjectured that this practice is, most likely, a survival of the ancient custom of making sacrificial offerings to the Earth-mother.[3]

Then again, in my translation of lores 56 and 57 of this folk-ballad, I have stated that, for transgressing the condition attached to the boon granted by the godling Gorakshanātha, namely, that the milkman should supply his customers with pure and unadulterated milk, the latter was punished by being metamorphosed after his death into a skylark which

[1] 'Crooke's *An Introduction to the Popular Religion and Folklore of Northern India.* (Allahabad Edition of 1894), p. 14.

[2] *Op-cit.*, p. 14.

[3] Clodd's *The Childhood of the World.* (New Edition of 1914), p. 140.

always cried for a drop of rain water. Now this statement of mine is based on the undermentioned folk-tale which is current in some parts of Bengal :—

A milkman used to adulterate milk with water and to sell this mixture to his customers at an exorbitant price. In this way, he amassed great wealth. When he died, his ghost was brought for trial before Yama, the god of death, who accused him of having acquired his immense wealth by dishonest means and threatened him with condign punishment for his sinful conduct. The milkman falsely protested his own innocence which lying statement angered the God of death all the more. Thereupon the latter confronted him with the ghosts of all those deceased customers to whom he, during his lifetime, had sold adulterated milk, and who strongly and in no measured terms testified against him. In this way, the milkman's guilt was proved to the very hilt.

Thereupon Yama pronounced this stern sentence against the sinful and guilty milkman : " During your lifetime, you mixed much water with the milk which you sold to your customers, and which you dishonestly palmed off on them as an unadulterated article. You have thereby committed great sin and, therefore, richly deserve the condign punishment which I am about to mete out to you. When you will be reborn, you will get only very little water to drink, and that little only at one time of the year. You will not be able to quench your thirst from such large sheets of water as tanks or streams, nor will you be able to do so during any other seasons of the year except the rainy one. You will get only rain-drops to drink, and that only during the rainy season. You will have to fly about in the sky, crying : " *Fatik jala, fatik jala* " (that is to say " O for a drop of pellucid water ! O for a drop of pellucid water ! ")

In this way, the sinful milkman metamorphosed into a skylark '*chātaka*' which flies about in the sky, crying " *Fatik*

jala, fatik jala " (or " O for a drop of pellucid water ! O for a drop of pellucid water ! ") [1]

In this connection it will not be out of place to mention here that the godling Gorakhnātha or Gorakshanātha is also worshipped in the district of Murshidābād in North-western Bengal in order that he might protect cattle from all sorts of evil.

Section VI.

The Deified Ascetic Gorakshanātha, the Deities Krishṇa and Satya Nārāyaṇa and other Godlings as Protectors of Cattle in Murshidābād.

In the next place, the deities Krishṇa and Satya Nārāyaṇa are also worshipped in the same district for the same purpose. It is quite in accordance with the fitness of things that the " herdsman god " Govinda or Gopāla or Krishṇa should be adored and prayed-to in order that he may preserve cattle from all kinds of harm. That the deity Satya Nārāyaṇa whose worship is so popular throughout Northern India, should also be worshipped for this very purpose, seems somewhat curious. It is further stated that, after the respective *pūjā* of these two deities has been finished, the holy water consecrated to them during the worship is sprinkled upon the cattle-pen in order to keep off all evil from the beasts living therein. The root-idea underlying this practice which is similar to the aforedescribed custom of sprinkling holy water upon cattle by the Pope on St. Anthony's Day at Rome, as also to that of sprinkling sacred water upon these beasts by the Parihar priest at Hoshangabad in the Central Provinces of India, is that the spirits of the deities have entered into the water, that, by the sprinkling thereof upon the cattle-pen, these spirits are placed in contact with

[1] *Vide* the Bengali monthly magazine *Prābasī* (published from Calcutta) for Bhād 1319 B. S. (August-September 1922 A. D.), pp. 707 708.

the cattle, and that, by being so placed, they are enabled to protect these animals from all kinds of harm.

It is further stated that another godling named Bangsana is also worshipped in the district of Murshidabad for ensuring the general welfare of cattle. The name of this deity is not mentioned either in the Vedas or the Purāṇas. I am therefore, inclined to think that he is some non-Aryan godling whose cult has, most likely, been borrowed from an aboriginal tribe and absorbed into Hinduism. With reference to this godling, Major J. H. Tull Walsh, I.M.S., says: "Cowherds and milkmen pay special attention to *Bangsana* but the village gods are expected to protect the village herds."

Then again, we come across a deification of another hero of the Mahābhārata, namely, of Arjuna the brother of the Pāṇḍava King Yudhiṣṭhira who, in addition to being an unerring marksman and a famous warrior, is also believed by the cowherds and milkmen of the district of Murshidabad to play the role of a protector of cattle. Under the influence of this belief, they hang up in the cattle-pen a piece of paper inscribed with the name of Arjuna as a talisman to keep off all sorts of evil from the cattle.

In some other localities in the district of Murshidabad, where the practice of shoeing bullocks is prevalent, some of the nails used for shoeing them have the efficacy of charms, in as much as the *ojhā* or village-exorciser recites some incantations over them.[1]

In some parts of the district of Dinājpur in Northern Bengal, and especially in the western part of the Sadar Sub-division thereof, the agriculturists worship a *genius loci* or local godling named Kāndi who is the protector of cattle and has also control over the diseases which afflict them.[2]

[1] *A History of Murshidabad District (Bengal).* By Major J. H. Tull Walsh, I. M. S., F. H. S. London: Jarrold and Sons. 1902. pp. 89-90.

[2] *Vide* my article on *The Village-Deities of Northern Bengal* in *The Hindustan Review* (published from Calcutta) for February 1922, p. 153.

APPENDIX.

SECTION VII.

१। राणा राणा (हेच्च), देव राणा (हेच्च),
२। देवेर वरे (हेच्च), लक्खीर घरे,
३। लक्खी चले (हेच्च), लक्खी राय (हेच्च)।
४। मोर प्रसादे (हेच्च), गोरचेर धारे (हेच्च),
५। त्रिश कोटि देवताय (हेच्च)
६। फुल जल पाय (हेच्च)॥

Translation.

I.

1. *Rāṇā rāṇā (hechcha), deva rāṇā (hechcha).*

2, 3. As the result of the boon granted by the deity (*hechcha*), in the house of (the goddess) Lakshmī, (the goddess) Lakshmī walks about (*hechcha*); *Laksmī rāya (hechcha).*[1]

4, 5 and 6. By my (*i.e.*, the worshipper's) favour (*hechcha*[2]), along with (*lit.*, by the side of) (the deity) Goraksha (*hechcha*), thirty millions of deities (*hechcha*), receive (offerings of) flowers (and) (holy) water (*hechcha*).

१। सात पाँच राखाले (हेच्च)
२। तुइल्या माटी (हेच्च),
३। तात वसाल्याम (हेच्च)
४। वारइहाटी (हेच्च),

[1] I am neither able to make out the meaning of the words in the first line, nor to find out the bearing which lines 1, 2 and 3 of this folk-song have on the content of the remaining three lines hereof.

[2] The word *hechcha* used in this and the following folk-songs appears to be a chorus word and has no meaning.

५। वारइ भाइ (हेच्च), आमार गोरच्चेर (हेच्च)
६। पान योगाय (हेच्च),
७। तोमार गौरव (हेच्च)
८। केमने चिनि (हेच्च)।

Translation.

II.

1, 2, 3 and 4. (We), seven (and) five cow-herds (*hechcha*), having cleared a plot of land (*lit.*, by digging out the earth) (*hechcha*), established thereupon (*hechcha*) a market for the sale of betel-leaves (*hechcha*).

5 and 6. (My) fellow-brother *Bārai* or the seller of betel-leaves supplies betel-leaves to my (deity) Goraksha (*hechcha*).

7 and 8. (O my deity Goraksha)! how shall I be able to appreciate (*lit.*, recognise) thy greatness (*lit.*, glory) (*hechcha*) ?

१। वल भाइ सवे सुवल ;*
२। राणा राणा (हेच्च)। देव राणा (हेच्च)॥
३। देवेर कड़ि (हेच्च)। नओ नओ वुड़ि (हेच्च)॥
४। नओ वुड़ि दिया (हेच्च)। साध करिया (हेच्च)॥
५। गाइ किनिलाम (हेच्च)
६। कविल सिरि (हेच्च)।
७। दुध हय कि (हेच्च)—हांड़ि हांड़ि (हेच्च)॥
८। मामा दोयाले (हेच्च) नड़े चड़े (हेच्च)।
९। भाग्ग्या दोयाले (हेच्च) हांड़ि भरे (हेच्च)॥
१०। वल भाइ सवे सुवल (हेच्च)।

Translation.

III.

1 and 2. All (ye) brother—(cow-herds) (named) Subala (and the like)! bawl out (the words of invocation): "*Rāṇā, rāṇā (hechcha); deva rāṇā (hechcha).*"

3, 4, 5 and 6. In order to gratify my desire (for a cow), I have purchased a cow (of the variety called) *Kabila siri* by offering (a price of) nine *buḍis* of Cowry-shells (which quantity of cowry-shells is the proper offering) to the deity (Goraksha).

7, 8 and 9. (*Question*) :—Does (the cow purchased by you) yield milk ?

(*Reply*) :—(Yes), she yields earthen-pipkinfuls of milk. If (my) mother's brother goes to milk her, she shies and gets restive (and does not allow herself to be milked). (But) if (my) sister's son goes to milk her, (she yields) an earthen-pipkinful (of milk).

10. All (ye) brother-(cowherds) (named) Subala (and the like) ! bawl out (the words of invocation). "[*Rāṇā, rāṇā*; *deva rāna* (*hechcha*)]."

१। ओहे भाइ (हेच्च) मोर वोल शोन (हेच्च)।
२। चैत्र बैशाखे (हेच्च) पाट वोन (हेच्च)॥
३। पाट वुनिले (हेच्च) हवे भाभर (हेच्च),
४। आगा खाय्या (हेच्च) गोड़ा फेलाय्या (हेच्च);
५। मध्ये खानि (हेच्च) जले फेलाय्या (हेच्च)।
६। जले फेले (हेच्च) हवे कुये (हेच्च),
७। छाये पोये (हेच्च) लइव धुये (हेच्च)।
८। धुये शुकाये (हेच्च) वाँधा मोरा (हेच्च)।
९। ताइ दिये वानालाम (हेच्च) गरुर दड़ा (हेच्च)॥
१०। पाटे वले (हेच्च) सुइ वड़ वीर (हेच्च)।
११। गरु वन्धन (हेच्च) हइल स्थिर (हेच्च)॥

Translation.

IV.

1. O brother-(cowherd) ! hear my (following) words :—

2, 3, 4, 5, 6, 7, 8, 9, 10 and 11. "In (the months of) Chaitra (March-April) and Baiśākha (April-May), sow

jute-plants. If you sow jute-plants, you will become prosperous.[1] You should eat the (tender) tops (of the jute-plants), throw away the root-portions (thereof), and steep the middle-portions (thereof) in water. By steeping (the middle portions thereof) in water, (they) will become soft.[2] (that is to say, the fibrous coverings of the jute-stalks will become soft and easily separable from the woody portions of the said stalks). Accompanied by (your) youngsters, (you) should wash in water the fibrous coverings and dry the same in the sun. With the dried jute-fibres, you will be able to make ropes for tethering the cattle with. The jute-plants say: 'We are very strong (*lit.*, great heroes) (for we) are able to tether cattle (*lit.*, the binding, of cattle has become secure.)' (*Hechcha*).

१। आश वांश

२। वांशेर जन्म (हेच्च) वैशाख मास (हेच्च)।

३। गोरखनाथके (हेच्च) दिलाम दाओ (हेच्च)।

४। वांश काट्ल्याम (हेच्च) चोरेर घाओ (हेच्च)!

५। आगा फयालाय्या (हेच्च) गोड़ा फयालाय्या (हेच्च)

६। मध्येर खानि (हेच्च) नड़ि वानाय्या (हेच्च)

७। सोनार नड़ि (हेच्च) पाल्याम गुने (हेच्च),

८। गरु छाड़्ल्याम (हेच्च) गोरचेर पुखे (हेच्च)।

९। आमार गरु (हेच्च) आउल जटा (हेच्च)

१०। भेड़ि एल (हेच्च) वन कांटा (हेच्च)।

Translation.

V.

1. *Āśa bānśa.*[3]

2. The bamboo develops new shoots (*lit.*, is born) in (the month of) Baiśākha (April-May).

[1] The meaning of the word '*Bhābhara*' (भाभर) used in line 3 of this folk-song is unknown to me. I have, therefore, conjecturally translated it into '*become prosperous.*'

[2] The meaning of the word *Kuye*' (कुये) used in line 6 hereof is also obscure. I have, therefore, conjecturally translated it into '*become soft.*'

[3] The meaning of the words '*Āśa bānśa*' (आश वांश) is obscure. I have, therefore, not been able to translate them.

3 and 4. Having dedicated a bill-hook to (my deity) Gorakshanātha, I cut a bamboo (with the said bill-hook) (for the purpose of making it into a *lāṭhi* wherewith to inflict) wounds upon thieves and robbers.

5, 6 and 7. Having thrown away the top and root-portions of the bamboo, I have made the middle portion (thereof) into a beautiful (*lit.*, golden) *lāṭhi* (for my own use).

8, 9 and 10. (Having got this *lāṭhi*) by the blessing (*lit.*, merit) of (my deity) Gorakshanātha, I took (*lit.*, untethered) my cattle (to the pasturage for the purpose of grazing them). My cattle have come (to the pasturage) after breaking through a tangle of matted creepers[1] and throny jungle-plants. (*Hechcha*).

१। धान दाओ (हेच्च) दिघल नाड़ा (हेच्च)।
२। गरु चल्ल (हेच्च) पूर्व्व पाड़ा (हेच्च)॥
३। धान दाओ (हेच्च) दिघल नाड़ा (हेच्च)।
४। गरु चल्ल (हेच्च) दक्षिण पाड़ा (हेच्च)॥
५। धान दाओ (हेच्च) दिघल नाड़ा (हेच्च)।
६। गरु चल्ल (हेच्च) पश्चिम पाड़ा (हेच्च)॥
७। धान दाओ (हेच्च) दिघल नाड़ा (हेच्च)।
८। गरु चल्ल (हेच्च) उत्तर पाड़ा (हेच्च)॥
९। धान दाओ (हेच्च) दिघल नाड़ा (हेच्च)।
१०। घुर्‌या आस्‌लो पाड़ा पाड़ा (हेच्च)॥

Translation.

VI.

1. (O my deity Gorakshanātha)! give (us) paddy-(crops) which are tall and wave to and fro (when agitated by the wind).

2. (My) cattle have gone (to graze at a place called) Pūrbbapāḍā.

[1] The meaning of the words 'Āula jaṭā' (आउल जटा) is unknown to me. I have therefore, conjecturally translated them into '*a tangle of matted creepers.*'

3. (O my deity Gorakshanātha) ! give (us) paddy-(crops) which are tall and wave to and fro (when agitated by the wind).

4. (My) cattle have gone (to graze at a place called) Dakshiṇapāḍā.

5. (O my deity Gorakshanātha) ! give (us) paddy-(crops) which are tall and wave to and fro (when agitated by the wind).

6. (My) cattle have gone (to graze at a place called) Paśchimapāḍā.

7. (O my deity Gorakshanātha) ! give (us) paddy-(crops) which are tall and wave to and fro (when agitated by the wind).

8. (My) cattle have gone (to graze at a place called) Uttarapāḍā.

9. (O my deity Gorakshanātha) ! give (us) paddy-(crops) which are tall and wave to and fro (when agitated by the wind).

10. (My cattle) have returned after grazing at several places (*lit.*, *Pāḷās* or quarters). (*Hechcha*).

१। जाइठा वगिर (हेच्च) चिक दिगल (हेच्च)

२। दिगुल्या नदीर (हेच्च) पाथाल्या खेता (हेच्च)

३। वत्सर वत्सर कर (हेच्च) गोरच्चेर सेवा (हेच्च)॥

Translation.

VII.

1. *Jāithā bagira* (*hechcha*) *chika digala* (*hechcha*).

2. *Digulyā nadīra* (*hechcha*) *pāthālyā khetā* (*hechcha*).[1]

3. (O brother-cowherds) ! worship (*lit.*, serve) (the deity) Gorakshanātha every year.

१। (ओ हेच्च) एल रे धेनु वत्स निये एल वर (हेच्च)।

२। हेन काले सेइ नारी तेर नाड़ि पोरे (हेच्च)॥

[1] The meaning of the first and second lines of this folk-song is unintelligible to me. I have, therefore, transliterated them in Roman characters only.

३। (ओ हेच) करेन तो गोरचेर सेवा ए वार-वत्सर (हेच)।
४। चरणे माङ्गिया लइल गुरुदेवेर वर (हेच)॥
५। (ओ हेच) एस मा भगवती आमार वाड़ी घर (हेच)।
६। तोमारे पूजिव आमि दिये फुलजल (हेच)॥
७। (ओ हेच) कविलास कविलास व'ले तिनो डाक दिल (हेच)।
८। स्वर्गे छिल कविलास मर्त्तते नामिल (हेच)॥
९। (ओ हेच) दशमास दशदिने गाभीटा वियाय (हेच)।
१०। देखिते देखिते ताहे एकमास याय (हेच)॥
११। (ओ हेच) माय थाके एक धरे रे, वाकुर आर-एक ठाँइ (हेच)।
१२। सारा रात्रि माय-छाय देखा साक्षात् नाइ (हेच)॥
१३। (ओ हेच) प्रभातेर कालेरे गाभीटा हाम्लाय (हेच)।
१४। दुग्धेर पियासे वाकुर गड़ागड़ि याय (हेच)॥
१५। (ओ हेच) गाइ दोयाय गोयाला भाइ से वड़ सियान (हेच)।
१६। भाण्डभरा दुग्ध राखे करे तो उमान (हेच)॥
१७। (ओ हेच) पाछा पायेरे छाँद दड़ि दिया (हेच)।
१८। आगा पाये रे वाकुरी वांधिया (हेच)॥
१९। (ओ हेच) प्रथमकार दुग्धे रे वसुमाताके दिया (हेच)।
२०। चारि वांटेर दुग्ध नेय पानाइया (हेच)॥
२१। (ओ हेच) एक धार दुग्ध यदि कम हय (हेच)।
२२। चोरा धेनु वलिया पञ्चाशटा किल देय (हेच)॥
२३। (ओ हेच) आपनार दुग्ध रे आपनि हइलाम चोर (हेच)।
२४। चोरा धेनु वलिया पांजरे मारे मोर (हेच)॥
२५। (ओ हेच) सुवुद्धि गोयालेर नारी कुवुद्धि लागिल (हेच)।
२६। मुड़ा झांटार तिन वाड़ि कविलासके दिल (हेच)॥
२७। (ओ हेच) सारादिन खाओ तुमि खइले आर जले (हेच)।
२८। गोयालेर गरु तुमि भय नाहि धरे (हेच)॥
२९। सन्धया ह'ले थाक तुमि नाटमन्दिरेर घरे (हेच)।
३०। (ओ हेच) गोयाइल वाड़ाइते नारी करे पाल पाल (हेच)।
३१। तार पाले धेनु वत्स थाके यावत् काल (हेच)॥
३२। (ओ हेच) गोयाल-वाड़ीते नारी कापड़े मुछे हात (हेच)।

३३। तार पाले धेनु वत्स थाके दिन सात (हेच्च)॥
३४। (ओ हेच्च) गोयाल वाड़ीते नारी पिठे चड़ देय (हेच्च)।
३५। तार पाले धेनु वत्स गावड़ा फेलाय (हेच्च)॥
३६। (ओ हेच्च) शनिवारे मङ्गलवारे गोवर विलाय (हेच्च)।
३७। तार पाले धेनु वत्स आड़ाइ दिन याय (हेच्च)॥
३८। (ओ हेच्च) तार पर साजिल वौ नाम तार सुया (हेच्च)।
३९। दुइधारे दुइ दांत वाड़ाइल भाङ्गा घरेर रुया (हेच्च)॥
४०। (ओ हेच्च) तार पर साजिल वौ नाम तार तारा (हेच्च)।
४१। एककुला धान निये फेरे पाड़ा पाड़ा (हेच्च)॥
४२। (ओ हेच्च) तार पर साजिल वउ नाम तार आँद (हेच्च)।
४३। पार[illegible]क'रे आनिल वौ चौह विलेर फांद (हेच्च)॥
४४। (ओ हेच्च) तार पर साजिल वौ नाम तार अला (हेच्च)।
४५। घुमेर आलस्ये खाय चौह छड़ि कला (हेच्च)॥
४६। (ओ हेच्च) तार पर साजिल वौ कपाले सिंदुर (हेच्च)।
४७। दरजाय वसिया वौ मारेन तो इन्दुर (हेच्च)॥
४८। (ओ हेच्च) तार पर साजिल वौ नाम तार ओड़ि (हेच्च)।
४९। खाओयार समये वौ लागाय दौड़ादौड़ि (हेच्च)॥
५०। (ओ हेच्च) तार पर साजिल वौ नाम तार उमा (हेच्च)।
५१। एकघरे रांधे-वाड़े चौहघरे धूमा (हेच्च)॥
५२। (ओ हेच्च) आमगाछ काटिया गोयाला पारेर वासाय वांधा (हेच्च)।
५३। ताल गाछ काटिया गोयाला मुखेर वलोय वांशि (हेच्च)॥
५४। (ओ हेच्च) सेइ दिन ये सेइ गोयाला मेङ्गे निल वर (हेच्च)।
५५। एक सेर दुधेर मध्ये दुइ सेर जल (हेच्च)॥
५६। (ओ हेच्च) सेइ दिन ये सेइ गोयाला मेङ्गे निल वर (हेच्च)।
५७। जन्मे जन्मे शोधे गोयाला गोरक्षेर धार (हेच्च)॥
५८। वल भाइ सावसुका (हेच्च)॥

Translation.

VIII.

1. The cow, accompanied by her calf, has come.

2, 3 and 4. At this time, a girl (*lit.*, woman), who had not completed her thirteenth year, began to worship (*lit.*, serve) (the deity) Gorakshanātha, (and continued to worship him) for twelve years. (Having finished the worship), she obtained from (*lit.*, at the feet of) the deity (*lit.*, spiritual preceptor) (Gorakshanātha) the (prayed-for) boon.

5, 6 and 7. (Then she began to invoke as follows) :— "O mother Bhagabati (that is to say, O mother cow) ! come to my house. I shall worship you by offering (you) flowers and (holy) water." Then she, three times, called out: "O (cow named) Kabilāsa ! O (cow named) Kabilāsa !"

8. (Hearing these cries), (the cow named) Kabilāsa, who was in heaven, came down to the earth.

9. (Then), after the expiry of ten months and ten days, the cow (named Kabilasa) gave birth to a calf.

10, 11 and 12. As soon as one month (from the date of calving) had expired, the mother (cow) began to live in one cow-pen (*lit.*, room) and the calf in another. (Owing to this housing), the mother (cow) could not see her calf (*lit.*, young one) during the whole night.

13 and 14. At the dawning of the day, the cow began to low (for her calf). (Hearing his mother's lowing), the calf began to get thirsty for (his mother's) milk, and, (being unable to quench his thirst), began to roll to and fro upon the ground.

15, 16, 17, 18, 19 and 20. The milkman, who was a very tricky fellow, set about to milk the cow. Having tied the (cow's) hind legs with a rope, and having tied the calf to (her) front legs, (and then) wetting her teats, he began to draw milk from (her) four teats. He gave the first stream of milk to the Earth-mother. Then he took the milk (himself), and, thus dishonestly,[1] kept one earthen-pipkinful of milk (for himself).

21 and 22. (The milkman is such a wicked fellow that) if the cow gives one stream of milk less, he strikes her fifty

[1] The meaning of the words '*kare to umāna*' (करेको उमान) is unknown to me. I have, therefore, conjecturally translated them into '*thus dishonestly*.'

blows (*lit.*, fisticuffs), saying: "The cow has stolen her milk."

23 and 24. (Receiving this scurvy treatment at the milkman's hands), (the cow says to herself): "The milk belongs to me. (For keeping back part of my own milk), I am called a thief. (The milkman) strikes me on (my) ribs, saying: "The cow has stolen her milk."

25, 26, 27, 28 and 29. The milkman's intelligent wife, in a fit of ill-temper, struck (the cow named) Kabilāsa three blows with (her) broomstick, and said: "Though you feed upon (our) oil-cake and water the whole of the day (and though you live in our cow-pen), you do not fear us. In the evening, you (leave our cow-pen) and go elsewhere (*lit.*, to the room of the temple) (in order to pass the night there).

30 and 31. The milkman's wife (subsequently) extended (her) cow-pen (and accommodated therein) many herds (of her kine). Along with these herds, the cow (named Kabilāsa) and (her) calf were also accommodated therein.

32. In the cow-pen, the milkman's wife (*lit.*, woman) wiped[1] (her) hands in (her) *sāri* (*lit.*, cloth).

33, 34 and 35. Along with the (aforementioned) herds, the cow (named Kabilāsa) (and her) calf remained for seven days. (While the cow and her calf were staying) in this cow-pen, the milkman's wife (*lit.*, woman) struck them slaps on (their) backs. (Smarting with the pain of these slaps), the cow (and her) calf lowed in great anguish.[2]

36. (The milkman's wife) distributed the dung (of the cow named Kabilāsa and of her calf) on Tuesdays and Saturdays.[3]

[1] I am inclined to think that the thirty-second line is a subsequent interpolation, for I cannot make out the reason why the milkman's wife wiped her hands in her *sāri*.

[2] The meaning of the words '*Gābaḍā felaya*' (गाबड़ा फेलाय) is unknown to me. I have, therefore, conjecturally translated then into '*lowed in great anguish.*'

[3] I am inclined to think that the thirty-sixth line is a subsequent interpolation, for I cannot make out the reason why the milkman's wife distributed the dung of the cow and of her calf on Tuesdays and Saturdays. The Bengali womenfolk believed that it is unlucky to give cow's dung to another person on a Tuesday or a Saturday, for doing so brings ill-luck and misfortune to the owner of the cow.

37. Along with the (afore-mentioned) herds, the cow (and her) calf passed two-and-a half days.

38 and 39. Then a woman (*lit.*, daughter-in-law) named Suā, rigging herself out in finery, extended the projecting eaves of (her) dilapidated hut (*lit.*, house) on both sides (thereof) to a small length (*lit.*, to the length of two feet.

40 and 41. Then a woman (*lit.*, daughter-in-law) named Tārā, rigging herself out in finery, took one winnowing-fanful of paddy and went about from one quarter (of her village) to another.

42 and 43. Then a woman (*lit.*, daughter-in-law) named Āṅda, rigging herself out in finery, crossed fourteen canals.

44 and 45. Then a woman (*lit.*, daughter-in-law) named Alā, rigging herself out in finery, ate fourteen bunches of plantains, while she was (lying) idle in a state of sleepiness.

46 and 47. Then a woman (*lit.*, daughter-in-law), rigging herself out in finery and putting a spot of vermilion on (her) forehead, sat down at the door of her hut and began to kill mice.

48 and 49. Then a woman (*lit.*, daughter-in-law) named Oḍi, rigging herself out in finery, began to run about at the time of taking (her) meal.

50 and 51. Then a woman (*lit.*, daughter-in-law) named Umā, rigging herself out in finery, began to cook (her meal) in one apartment (of her hut); (but) the smoke (from her kitchen) (spread to and filled) fourteen other apartments (of her hut).

52. The milkman cut down a mango-tree (and utilised the timber thereof) in building a lodging-house on the other bank (of a canal).

53. The milkman cut down a palmyra-tree (and utilised the timber thereof) in making [1] a flute to be played upon by the mouth.

[1] I think the word '*Baloya*' (बलोय) is a misprint for *banaya* (बानाय). I have, therefore translated it into '*making*.'

54 and 55. From that day forth, the afore-mentioned milkman began to transgress (the condition attached to) the boon (granted by the deity Gorakshanātha), (namely, that the milkman should supply his customers with pure and unadulterated milk) and began (to mix) two seers of water with one seer of milk.

56 and 57. From that day forth, the afore-mentioned milkman began to transgress (the condition attached to) the boon (granted by the deity Gorakshanātha), (namely, that the milkman should supply his customers with pure and unadulterated milk); (and, for this transgression), the milkman is doomed to undergo in every one of his lives, the punishment meted out to him by the deity Gorakshanātha; (that is to say, for this transgression, the milkman is metamorphosed, after his death, into a sky-lark which always cries for rain-water).[1]

58. All (ye) brother (-cow herds)! cry out: "Victory to Gorakshanātha.[2]

[1] The literal translation of line 5 of is: "In every one of his lives, the milkman repays the debt due to Gorakshanatha." But this literal translation makes no sense in accordance with the content of the preceding lines. I have, therefore, translated this line in such a way as to make sense in accordance with the content of the preceding lines.

[2] I think the word '*sabasuka*' (सावसुका) is a mistake for '*saba gorakshera jaya*' (सब गोरक्षेर जय).

ON TWO ACCUMULATION DROLLS OF "THE PRAWN AND THE CROW TYPE."

By

SARATCHANDRA MITRA, M.A., B.L.

In a previous paper,[1] I have discussed the characteristics of the first variety or group of Accumulation Drolls or Cumulative Folk-tales of "*The Old Woman and Pig Type*"; and have published a new specimen thereof from Eastern Bengal.

In the present paper, I shall deal with the interesting features of the second variety or group of Accumulation Drolls or Cumulative Folk-tales of the afore-mentioned type, and publish, for the first time, the English translations of two new variants thereof which may be classified under this second group or variety.

I have already fixed the story-radical of this second variety or group of Accumulation Drolls as follows :—

(1) The hero asks for assistance from some animal, inanimate object or human being *which or who agrees to help him provided he fulfils some condition.*

(2) He, in order to fulfil this condition, solicits assistance from another animal, inanimate object or human being *which or who also agrees to help him provided he fulfils some other condition.*

(3) In this way, he goes on making his requests for help and, in the very same way as before, the animals, inanimate objects or human beings appealed to *go on agreeing to help*

[1] *Vide* my paper "*On an Accumulation Droll from Eastern Bengal*" in *The Journal of the Department of Letters of the University of Calcutta*, Vol. X, pp. 145-153.

him provided he would fulfil some other condition prescribed by each of them.

(4) Finally, he attains his object or is killed.[1]

Under the afore-mentioned second group or variety, I classified four Accumulation Drolls or Cumulative Folk-tales which were known to folklorists up till that time (1901).

As an additional specimen of the afore-mentioned second variety, I published, in my paper (referred to above) in *The Journal of the Asiatic Society of Bengal*, a new Cumulative Folk-tale which I had collected in Lower Bengal and which I named "*The Prawn and the Crow.*"

The main incidents of this new Bengali Accumulation Droll of the afore-mentioned second group or variety may be briefly described as follows:—

(1) A female prawn was basking in the sun on the margin of a tank.

(2) A hungry crow, happening to see the prawn, expressed a desire to eat her. Hearing this, she told the former to, first of all, wash his beak clean with Ganges-water, and that, if this would be done, she would allow herself to be eaten by him. To this proposal of the prawn, the crow agreed.

(3) Thereupon he went to the river Ganges, and asked for some water from her for washing his beak with. Hearing this, the Ganges told him to, first of all, bring an earthen cup whereinto she would pour some water to enable him to wash his beak with. To this proposal of the river Ganges, the crow agreed.

(4) Thereupon he went to a potter, and asked for an earthen cup from him, in which he might take some water from the river Ganges for washing his beak with. Hearing this, the latter told him to, first of all, bring him a deer's horn by means of which he would dig out earth for making

[1] *Vide* my paper on "*An Accumulation Droll and Rhyme from Bihar with Remarks on Accumulation Drolls*" in *The Journal of the Asiatic Society of Bengal*, Vol. LXX, Part III, No. 2, for 1901, pp. 99-104.

the cup with. To this proposal of the potter, the crow agreed.

(5) Thereupon he went to a deer, and asked him for one of his horns, which the potter wanted for digging out the earth with. Hearing this, the deer told him to, first of all, bring some grass for him to eat, so that, after eating it, he might give him the required horn. To this proposal of the deer, the crow agreed.

(6) Thereupon he went to a grass-cutter, and asked for some grass from him to give to the deer to eat. Hearing this, the latter told him to, first of all, bring a scythe for cutting the grass with. To this proposal of the grass-cutter, the crow agreed.

(7) Thereupon he went to a black-smith, and asked for a scythe from him for giving to the grass-cutter. Hearing this, the latter told him to, first of all, bring some fire for melting the iron with, so that he might forge a scythe out of the molten iron. To this proposal of the black-smith, the crow agreed.

(8) Thereupon he went to the fire, and asked for some fire from him for giving to the black-smith. Hearing this, the latter agreed to comply with the former's request.

But, as the crow went to take the fire, he got burnt and died.

(9) To the afore-mentioned five specimens of the Accumulation Droll of the second variety, I would add the two undermentioned new variants thereof, of which the first one appears to be from Lower Bengal, and the second from Eastern Bengal.

The first of these new variants appears to be a Cumulative Folk-rhyme which is crooned as a nursery-rhyme in the households of Lower Bengal. Even if it be the appeal (in a metrical form) made to different human beings and beasts for assistance, which is recited by the hero of some hitherto-unpublished Cumulative Folk-tale, I, for one, have not come across the whole text thereof.

However, I publish herein below, for the first time, the text, in Devanagari script, and the English translation of this interesting Cumulative Folk-rhyme, of which the version, in Bengali characters, has been printed at page 72 of a book of Bengali nursery-rhymes and lullabies entitled: *Khuku manira Chhaḍa* (or "*The Rhymes of the Jewel-like Baby*"):—[1]

भात चड़ान।

१. गैरस्त भाइ, देवे आगुन ?
२. ग'ड़्वो कांचि, काट्वो घास ;
३. खावे गाभी, देवे दुध ;
४. खावे हरिण, क'र्वे युध ;
५. भाङ्गे शिं खंड़्वो माटि ;
६. गड़्वो भाड़, आन्वो जल ;
७. धोवो हात—
८. तवे आमि चड़ावो भात।

TRANSLATION.

Ihout setting (a pot of) Rice (over the Fire) to cook.

1. (O) brother house-holder! Will (you give me) fire?

2. (so that I may) forge (a) scythe (with which I shall) reap grass;

3. (so that) the cow may eat (this grass, and) may give milk;

4. (so that) the deer may drink (this milk, and), (being strengthened thereby), may fight (with another deer);

5. (so that in the course of this fight), the deer's horn may get broken (and fall off), (so that I may pick up this broken horn, and, by means of it), may dig out earth;

[1] Compiled by Yogindranath Sarkar, published by the City Book Society, No. 64, College Street, Calcutta, B. S. 1326.

6. (so that, with this earth, I) may make (*lit.*, mould) (an) earthen pot (in which I) shall fetch water;

7. (so that, with this water), (I) may wash (my hands);

8. (and), thereafter, (I) shall set (the pot of) rice (over the fire) to cook.

The second of these two new variants is a Bengali version printed at pages 59-63 of the *Ṭuntunir Bai* or "*The Book of the Ṭuntuni Bird*" [or the Indian Tailor-bird (*Ortomus Sutorius*)] which I have already referred to in my previous paper "*On an Accumulation Droll from Eastern Bengal*" in this *Journal*.

As this interesting Cumulative Folk-tale is written in Bengali and is, therefore, not known to the storiologists of Europe and America, I am publishing herein below for the first time, the English translation thereof which runs as follows:—

The Story of the Sparrow and the Crow.

Once upon a time, there lived a sparrow and a crow who were on the most friendly terms with each other.

One day, the sparrow happened to see that a householder had spread out, in his courtyard, a thick mat whereon the latter had placed his paddy and chillis to dry in the sun. Seeing this, the sparrow said to the crow: "O friend! let us lay a bet as to which of us two will be able to eat up the whole lot of paddy or of chillis first—whether you will be able to eat up the whole lot of chillis before me, or whether I shall be able to consume the whole matful of paddy before you?"

The crow, having agreed to the sparrow's proposal, said: "O friend sparrow! I shall certainly eat up the whole matful of chillis before you and that, in case I should fail to do this, you shall exact the penalty from me by ripping open my breast and sucking out my heart's blood therefrom."

Hearing this, the sparrow replied: "O friend crow! There can be no doubt whatever that I shall eat up, before

you, the whole lot of paddy. Should I fail to do this, you shall exact from me the penalty by ripping open my breast and sucking out my heart's blood therefrom."

Having said this, the crow began to eat the chillis, and the sparrow to consume the paddy.

But the crow ate up the chillis so quickly that, by the time he had finished eating the whole lot thereof, the sparrow had not consumed even one-fourth of the whole matful of paddy.

Thereafter, addressing the sparrow, the crow said: "Friend! what do you think of my performance now?"

To this, the sparrow replied: "yes, you are now quite at liberty to exact from me the penalty agreed upon. But, being a friend of mine, are you really going to exact it? If you actually mean to do so, do be good enough to wash your beak clean, for you feed upon all manner of foul things."

(I) Having agreed to do so, the crow went to wash his beak in the water of the river Ganges.

Addressing the crow, the river Ganges said: "O crow! your beak is unclean. Don't touch me with it. First of all, bale up water from me and, then, wash your beak with the same."

(II) Having agreed to do so, the crow went to a potter and, addressing the latter, said:

"1. O potter! O potter! give (me) an earthen pot.

2. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash (my) beak clean.

3. Thereafter (I) shall eat the sparrow's breast."

To this request, the potter replied: "O crow! I haven't got any earthen pot with me just at present. Bring me clay, and, with it, I shall make for you an earthen pot."

(III) Hearing these words, the crow went to a buffalo and, addressing the latter, said:—

1. "O buffalo! O buffalo! give (me one of your horns).

2. (With this horn, I) shall dig up earth, (and, with this earth, the potter) will make (for me) an earthen pot.

3. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

4. Thereafter (I) shall eat the sparrow's breast."

Hearing these words, the buffalo became greatly infuriated and furiously rushed at the crow for the purpose of butting the latter with his horns.

(IV) Seeing the buffalo's infuriated attitude the crow flew away from him as fast as his wings would carry him, and went to a dog and, addressing the latter, said :—

1. "O dog! O dog! kill the buffalo.

2. (From the dead buffalo, I) shall take (his) horn. (With this horn, I) shall dig up earth, (and with this earth, the potter) will make (for me) an earthen pot.

3. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

4. Thereafter (I) shall eat the sparrow's breast."

To this request, the dog replied : "O Crow! bring some milk (for me to drink, so that), by drinking (the same), (I) may gather strength in (my) body, (and) thereafter (I) shall kill the buffalo."

(V) Hearing these words, the crow flew off to a cow, and, addressing the latter, said :—

1. "O cow! O cow! give (me your) milk.

2. Having drunk (this milk), the dog will gather strength in his body (and, thereafter), kill the buffalo.

3. (From the dead buffalo, I) shall take (his) horn. (With this horn, I) shall dig up earth, (and, with this earth, the potter) will make (for me) an earthen pot.

4. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

5. Thereafter (I) shall eat the sparrow's breast."

To this request, the cow replied: "O crow, bring some grass (for me to eat). After eating (this grass), (I) shall give (you) milk."

(VI) Hearing these words, the crow flew off to the meadow, and, addressing the latter, said:

1. "O meadow! O meadow! give (me some grass).

2. Having eaten (this grass), the cow will give milk.

3. Having drunk (this milk), the dog will gather strength in his body (and, thereafter), kill the buffalo.

4. (From the dead buffalo, I) shall take (his) horn. (With this horn, I) shall dig up earth (and, with this earth, the potter) will make (for me) an earthen pot.

5. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

6. Thereafter (I) shall eat the sparrow's breast."

To this request, the meadow replied: "O crow! there is plenty of grass upon me. Only bring a scythe and, with it, reap the grass."

(VII) Hearing these words, the crow flew off to a blacksmith, and, addressing the latter, said:—

1. "O blacksmith! O blacksmith! give (me a) scythe.

2. (With this scythe, I) shall reap grass.

3. Having eaten (this grass), the cow will give milk.

4. Having drunk (this milk), the dog will gather strength in his body, (and, thereafter), kill the buffalo.

5. From the dead buffalo, (I) shall take (his) horn (With this horn, I) shall dig up earth, (and, with this earth, the potter) will make (for me) an earthen pot.

6. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

7. Thereafter (I) shall eat the sparrow's breast."

To this request, the blacksmith replied: "O crow! I haven't got fire with me just at present. Go and bring (me) fire, and (I) shall forge (for you) a scythe."

(VIII) Hearing these words, the crow flew off to a householder, and, addressing the latter, said:

1. "O brother householder! give (me) fire.

2. (With this fire, the blacksmith will forge (for me) a scythe.

3. (With this scythe, I) shall reap grass.

4. Having eaten this grass, the cow will give milk.

5. Having drunk (this milk), the dog will gather strength in his body (and, thereafter), kill the buffalo.

6. (From the dead buffalo, I) shall take (his) horn. (With this horn, I) shall dig up earth, (and, with this earth the potter) will make (for me) an earthen pot.

7. (With this earthen pot, I) shall bale out water (from the river Ganges, and, with this water, I) shall wash my beak clean.

8. Thereafter (I) shall eat the sparrow's breast."

Hearing this request for fire, the householder fetched a large vesselful of fire and enquired of the crow: "O crow! how shall (you) take away the fire?"

Having spread out his wings, the stupid crow replied: "O householder! do be good enough to pour out the fire upon these wings of mine."

(IX) As soon as the householder, in compliance with the crow's suggestion, poured out the large vesselful of fire upon the latter's spread-out wings, the latter died then and there.

In this way, the stupid crow could not eat the sparrow's breast.

On comparing the three Accumulation Drolls dealt with in this paper, I find that the heroes of the first tale (*The Prawn and the Crow*) and of the third one (*The Sparrow and the Crow*) are crows; while, in the second Cumulative

Tabular statement shewing the Identity of the Incidents of the Three Accumulation Drolls dealt with in this paper.

No. of the incident in "The Prawn and the Crow."	No. of the corresponding incident in "Setting a Pot of Rice to Cook."	No. of the corresponding incident in "The Sparrow and the Crow."
(3) Appeal to the river Ganges for water for washing the hero's beak with.	7. The bringing of water for washing the hero's hands with.	(I) Appeal to the river Ganges for water for washing the hero's beak with.
(4) Appeal to the potter for an earthen cup for bringing the water in.	6. The making of an earthen pot for fetching the water in.	(II) Appeal to the potter for an earthen pot.
(5) Appeal to the deer for a horn for digging out the earth with	4 and 5 The picking up of the deer's broken-off horn for digging out the earth with.	(III) Appeal to the buffalo for a horn.
Nil ...	3 and 4. The obtaining of milk from the cow for giving to the deer to drink.	(V) Appeal to the cow for milk for giving to the dog to drink.
(6) Appeal to the grass-cutter for grass for giving to the deer to eat.	2 and 3. The reaping of grass for giving to the cow to eat.	(VI) Appeal to the meadow for grass for giving to the cow to eat.
(7) Appeal to the blacksmith for a scythe for giving to the grass-cutter to cut the grass with.	2. The forging of a scythe by the hero for reaping the grass with.	(VII) Appeal to the blacksmith for a scythe for reaping the grass with.
(8) Appeal to the fire for some fire for giving to the blacksmith	1. Appeal to the householder for fire for forging a scythe with.	(VIII) Appeal to the householders for fire for giving to the blacksmith.
(9) The hero's death from getting burnt by the fire, while taking it.	*Nil* .. .	(IX) The hero's death from getting burnt by the fire, while taking it.

Folk-rhyme, it is not stated as to who is the hero thereof. The finale of the first and third tales is the same, namely, that the heroes thereof die from getting burnt by the fire, while taking it. While the finale of the second folk-rhyme is that, by obtaining the different things mentioned therein, the hero will be ultimately enabled to set the pot of rice over the fire to cook.

The remaining incidents of these three Accumulation Drolls are almost or wholly similar or identical, as will appear from the subjoined tabular statement.

I am, therefore, of opinion that these three Cumulative Folk-tales have originated from one source, and that the inhabitants of those localities where each of them is current have borrowed the same from their respective neighbours.

It is, however, difficult to say positively which of these three versions is the earliest one. But I may venture to opine that the first and third variants are the earlier versions. Whereas the second variant appears to me to be a later modification of or adaptation from the earlier ones, in as much as it concludes with a pleasant finale which affords greater pleasure to young children to hear than the hero's gruesome and fatal ending in the other two.

In the foregoing three Cumulative Folk-tales and Folk-rhyme, we come across one interesting fact, namely, *the hero's requisition for the horn of a deer or of a buffalo for the purpose of digging out the earth with*, although he calls for an iron scythe for reaping the grass growing upon the surface of the earth with. Now, the question arises: Why is the horn required, instead of an iron implement, for the purpose of digging out the earth with?

With a view to answer this question we must mentally transport ourselves, to the Neolithic period or the New Stone Age of the world's history when the earth was inhabited by primitive men who used to make and use well-formed spear heads, daggers, adzes, hatchets, beautifully-shaped barbed

arrow-heads, and *other stone tools and weapons which were ground to a sharp edge and were also polished. During this period of primitive man's history, the pre-historic man appears to have used some kind of stone or (failing stone) horn implement for digging into the earth* which was, most likely looked upon by him as a living being and a sacred personage.

When primitive man passed out of the New Stone Age, entered the Age of Bronze, and, emerging therefrom, arrived at the Age of Iron, and began to make and use tools and weapons of iron, he still retained his predilection for the use of stone and horn tools and implements in connection with the performance of religious ceremonies and rites and also with respect to sacred beings and personages. *It would further appear that he never used implements of iron on the occasion of the performance of these ceremonies and rites, and for carrying out operations upon the bodies of sacred (or supposed sacred) beings, for the simple reason that iron was a metal which had been, then recently, adopted and that he, therefore, looked askance at its use upon these last-mentioned beings or on these holy occasions.*

On this point, Sir J. G. Frazer says: "The general dislike of innovation, which always makes itself strongly felt in the sphere of religion, is sufficient by itself to account for the superstitious aversion to iron entertained by kings and priests and attributed by them to the gods; possibly this aversion may have been intensified in places by some such accidental cause as the series of bad seasons which cast discredit on ploughshares in Poland." *

The ceremonial use of stone implements even after they had ceased to be used in ordinary life, has been, curiously enough, proved by the discoveries which were made, a few years ago, by Rai Bahadur Sarat Chandra Rāya (of Ranchi) in Chota Nagpur. This Indian anthropologist discovered

* The Golden Bough, by Sir J. G. Frazer, F.R.S., F.B.A. (Abridged Edition), MacMillan and Co., Limited, London, 1923, p. 225.

implements made of stone so largely associated with the remains of the Copper Age that he could not but come to the conclusion that these neolithic tools and weapons must have been regularly used in the Copper and even in the Iron Ages.

On this point, the well-known ethnographer Sir Edward Gait, speaking in the course of his Annual Presidential Address to the Bihar and Orissa Research Society at Patna in 1917, said as follows:—

"Sarat Babu has found stone implements associated with remains of the Copper Age to such an extent that he concludes that their regular use 'continued well on, into the Copper Age and even into the Iron Age.' This is not at all impossible, but it must be remembered that the ceremonial use of articles often continues long after it has been discontinued in ordinary life. The Indian midwife still severs the umbilical cord with a piece of sharp bamboo, or with a shell, rather than a knife; the mirror given to a Hindu bride is of burnished brass or copper; and the fire for certain religious ceremonies is kindled by friction and not by means of a match. In the same way the custom of burying stone celts with a corpse may have survived long after they had ceased to be in daily use as implements."[1]

I have already stated above that primitive man looked upon the earth as a living being and a sacred personage. As all things come from her, as all trees and plants grow out of her, as all rivers and springs flow and gurgle out of her, as all mountains and hills appear to emerge out of her surface, she was appropriately described as the *All-Mother*. This was not a mere fanciful idea, but a hard matter of fact. For instance, the aboriginal people of America and other places looked upon the Earth as a living entity. Curiously enough, an astronomer, who lived three hundred years ago, opined that the lungs and gills, through which the Earth-spirit or Earth-mother breathed, would, some day, be found at the bottom of the sea.

[1] *The Journal of the Bihar and Orissa Research Society* (Patna) for March, 1917, p. 5.

Primitive man further believed that the Earth-mother or Earth-spirit would get angry if he would cut up her soil by means of the plough with the iron ploughshare, or dig out earth from her by means of an iron implement.

Then again, for the purpose of propitiating the Earth-mother or Earth-spirit, the ancient Mexicans were accustomed to sacrifice a woman dressed as the Earth-goddess and to offer the heart of the sacrificed victim to the former. In the Philippine Islands, a slave used to be killed (by way of sacrifice to the Earth-mother) before the paddy was sown in the fields. Among the Khonds of Orissa, a human victim called the *meariah*, was immolated by way of sacrifice to the Earth-mother for the purpose of increasing the fertility of the soil. It is further reported, that, till recently, some tribes in Bengal used to sacrifice a human being in order to propitiate the Earth-goddess, and to hack the sacrificial victim to pieces so that the blood that flowed from his mangled corpse might impart a deep red colour to the crop of turmeric they cultivated.

From the foregoing examples, we realised how strong was the primitive man's belief that the Earth-mother was a living being and a sacred personage and that care should always be taken not to rouse her feelings of wrath. It was even further believed by him that, *if any iron implement was used in digging into her, she would be angered thereby.*

On a consideration of the foregoing reasons, we cannot but come to the conclusion that, even after primitive man had passed into the Age of Iron and had begun to use implements and weapons of iron, he used implements of stone or horn for the purpose of digging into the earth under the belief that the Earth-mother or Earth-spirit would not be angered thereby.

It is for this reason that we arrive at the conclusion that the foregoing three Accumulation Drolls and Cumulative Folk-rhyme must have been composed during the period when the people of Bengal were in a very primitive stage of

culture. Then again, for the reasons set forth above, we find out the motive which prompts the heroes of these Cumulative Folk-tales and Folk-rhyme to ask for the horn of a deer or of a buffalo for the purpose of digging out the earth with.

Similar taboos against the use of new-fangled things or objects which are of foreign manufacture or which have come into use only recently, in connection with the performance of religious rites and ceremonies, survive in Bengal even to the present day. For instance, we find that, in the baraṇḍālā (বরণডালা) or the winnowing-basket containing the luck-bringing objects, which is waved before the bridegroom and the bride on the occasion of marriages, and which is placed before idols on the occasion of the latter's *pūjā* or worship, mirrors made of polished metal and wooden combs are placed therein to the exclusion of mirrors made of quicksilvered glass and of combs made of horn, bone, vulcanite or metal which have come into use only recently.

Then again, we come across a similar taboo, existing even now among the Brāhmaṇa priesthood of Bengal, against the use, on the occasion of *pūjās* or worships, of foreign flowers, of which the cultivation has been introduced into this province only recently.

Then again, in the first (*The Prawn and the Crow*) and the second (*The Sparrow and the Crow*) Accumulation Drolls, we come across another interesting fact, namely, the blacksmith's asking the heroes of the tales to bring him some fire in order to enable him to forge the required scythe. The question, therefore, arises: Why does the blacksmith make this request to the hero of the tale?

In the ordinary course of things, the blacksmith himself could have made the fire by means of a fire-drill or by the flint-and-iron. But he does not do so. On the contrary, he asks the hero of the story to procure and fetch the fire. What is the motive underlying this request of his? Does he make this request from a sheer desire to avoid the trouble and

labour of kindling the fire, or does he make it in compliance with some long-standing taboo—some primitive prohibition, *which forbide him to kindle a fire ?* For the reasons set forth below, I am positively of opinion that he made this request to the heroes of the tales, simply for satisfying the requirements of a long-standing taboo.

Now, in the mythologies of all nations, there is to be found the wide-spread primitive belief that the art of the blacksmith was first discovered and practised by supernatural beings. This is evidenced by the folklore, which exists among various races of people living in widely-separated countries, and which has gathered about different supernatural beings commencing from Cyclops and ending with Wayland Smith who, in his turn, has been ultimately identified with the Devil of Christianity.[1] It is for this reason that, even to the present day, the blacksmith is believed by many races of people to possess supernatural powers.[2] This leads me to the conclusion that, during the period in which the preceding two Cumulative Folk-tales were composed, the blacksmith appears to have been looked upon as a person possessing supernatural powers—in short, as a sorcerer who, by the very nature of his craft—the Black Art, was debarred from the doing of such a holy thing as the kindling of the sacred fire.

Now, I shall show that the act of kindling the fire is a sacred rite. On this point, Miss C. S. Burne says :—

"Few things, perhaps, are better calculated to excite wonder and religious awe than the art of fire-making. By it man creates both his best friend and his possible destroyer. It need hardly be repeated here, how, in ancient Rome, *the tending of a perpetually burning fire was a sacred duty, how the yearly kindling of new fire was a religious rite performed, to this day, at St. Peter's at Rome as well as universally in the Greek Church—and how, in important crises, evil is*

[1] *An Introduction to the Popular Religion and Folklore of Northern India*, by W. Crooke, B.A. (Allahabad Edition of 1894), p. 199.

[2] *Op. cit.*, p. 45.

averted or success achieved by kindling ceremonial fires by the ancient method of friction." [1]

Under the circumstances stated above, the blacksmith, in the foregoing two Accumulation Drolls, does not himself kindle the fire by means of either the fire-drill or the flint-and-iron, but asks the heroes thereof to procure and fetch the fire for the purpose of enabling him to forge the required scythe.

I shall, now, conclude this paper by making a few observations on the glimpses of the village-community and the village-life in Bengal of the olden times, which we catch from the preceding three Accumulation Drolls and Cumulative Folk-rhyme. We find therefrom that the simple agriculturists of those days used to cultivate, just as they do even to the present day, crops of paddy and chilli or red pepper which are two of the important field-products of Eastern Bengal, and that they used to boil the unhusked paddy in water and, thereafter, to dry the same as well as the ripe chillis by spreading them out on a mat in the hot sun. We also know therefrom that the potter, the blacksmith and the grass-cutter formed three members of the village-community, who used to supply their co-villagers with earthenware, iron tools and implements and cut grass, but did not use to keep with themselves a stock of these articles ready-made and ready-cut for sale to the latter. It would further appear therefrom that, whenever a member of the village-community required an earthen-pot, an iron implement or some cut grass, he would go to the village potter, blacksmith or grass-cutter and ask him to manufacture (or cut) and supply him with the same, and that the latter, on being thus requisitioned, would make, forge or cut these articles and furnish the same to their respective customers. These villagers' belief in the sanctifying

[1] *The Handbook of Folklore*, by C. S. Burne, New Edition, London : Sidgwick and Jackson, Ltd., 1914, p. 69.

power of the waters of the river Ganges was so great that they laboured under the superstitious idea that even the beak of the Crow, which feeds upon carrion and all manner of foul things, would be rendered holy and clean by being washed with Ganges-water.

MOTIHARI,
Monday, the 21st May, 1923.

Notes on War in Ancient India

BY

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PREFACE

The history of Ancient Indian War and Military Movements is a highly interesting study. As early as 1848 H. H. Wilson read a paper before the Royal Asiatic Society of England '*On the Art of War as known to the Hindus.*' In 1875 Dr. Rajendralal Mitra published some valuable notes on ancient Indian arms in his '*Antiquities of Orissa*' and '*Indo-Aryans.*' Since then, so far as is known to me, no systematic attempt has, however, been made to write a comprehensive history of ancient Indian war. Though Prof. Hopkins published some interesting notes on this subject, chiefly from the *Mahābhārata*, in the *Journal of American Oriental Society*, a good book on the subject is nevertheless a desideratum.

I therefore took up '*Ancient Indian War*' as the subject of my study this year. But as I began collecting materials I was soon convinced that it was not possible to do justice to the subject of my studies in the short space of a year, working only in the spare time after the discharge of my ordinary duties as a teacher in the University. How difficult the task is one can easily understand by merely contemplating for a moment that even for a scholar like William Irvine it took ten strenuous years to complete a study of the *Army of the Indian Moghuls*. This year I am presenting only some notes on the subject, in three chapters, which were hurriedly strung together to furnish the annual report of my work as Premchand Roychand Research student. Painfully conscious as I am of the many defects of my work this year, I do hope the University will give me facilities for carrying on my studies on the subject next year also, so that I may complete my *Notes* and publish a second volume on *War in Ancient India*.

I cannot close this preface without thanking Mr. J. C. Chakravorti, the Assistant Registrar, whose kindly interest in my work has ever been a source of inspiration to me.

HARDINGE HOSTEL,
CALCUTTA,
April 24, 1926.

H. C. RAY.

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Notes on War in Ancient India.

Sastra Yajña.

(Sacrifice of Arms.)

Dhārtarāṣṭrasya Vārṣṇeya śastrayajña bhaviṣyati,
asya yajñasya vettā tvam bhaviṣyasi Janārddana.
Ādhvaryyavañca te Kṛṣṇa kratāvasmin bhaviṣyati,
hotā caivātra Vībhātsuḥ sannaddhaḥ sa kapidhvajaḥ.
Gāṇḍīvaṁ sruk tathājyañca vīryām puṁsāṁ bhaviṣyati,
Aindraṁ Pāśupataṁ Brāhmaṁ Sthūṇākarṇañca Mādhava,
Mantrāstatra bhaviṣyanti prayuktāḥ Savyasācinā.
Anuyātaśca pitaramadhiko vā parākrame,
gītaṁ stotram sa Saubhadraḥ samyak tatra bhaviṣyati.
Udgātātra punar-Bhīmaḥ prastotā sumahāvalaḥ,
vinadan sa naravyāghro nāgānīkāntakṛdraṇe.
Sa caiva tatra dharmātmā śaśvadrājā Yudhiṣṭhiraḥ,
japairhomaiśca samyukto brahmatvaṁ kārayiṣyati.
Saṅkhaśabdāḥ samurajā bheryaśca Madhusūdana,
utkṛṣṭaḥ siṁhanādaśca subrahmaṇyo bhaviṣyati.
Nakulaḥ Sahadevaśca Mādrīputrau yaśasvinau.
śāmitraṁ tau mahāvīryau samyak tatra bhaviṣyataḥ.
Kalmāṣadaṇḍā Govinda vimalā rathapaṅktayaḥ,
yupāḥ samupakalpyantāmasmin yajñe Janārddana.
Karṇinālīkanārācā vatsadantopavīṁhaṇāḥ,
tomarāḥ somakalaśāḥ pavitrāṇi dhanūṁṣi ca.
Asayo'tra kapālāni purodāśāḥ śirāṁsi ca,
havistu rudhiram Kṛṣṇa tasmin yajñe bhaviṣyati.
Idmāḥ paridhayaścaiva śaktayo vimalā gadāḥ,
sadasyā Droṇaśiṣyāśca Kṛpasya ca Śaradvataḥ.
Iṣavo'tra paristomā muktā gāṇḍīvadhanvanā,

mahārathaprayuktāśca Droṇa-Drauṇi pracoditāḥ.
Pratiprāsthānikaṁ karma Sātyakistu kariṣyati,
dīkṣito Dhārtarāṣṭro'tra patnī cāsya mahācamūḥ.
Ghatotkaco'tra śāmitraṁ kariṣyati mahāvalaḥ,
atirātre mahāvāho vitate yajñakarmaṇi.
Dakṣiṇā tvasya yajñasya Dhṛṣṭadyumnaḥ pratāpavān,
vaitāne karmaṇi tato jāto yah Kṛṣṇa pāvakāt.
Yadvruvamahaṁ Kṛṣṇa kaṭukānisma Pāṇḍavān,
priyārtham Dhārtarāṣṭrasya ten tapyehyakarmaṇā.
Yadā drakṣyasi māṁ Kṛṣṇa nihataṁ Savyasāchina,
punaścitistadā cāsya yajñasyātha bhaviṣyati.
Duhśāsanasya rudhiraṁ yadā pāsyati Pāṇḍavaḥ,
ānarddaṁ narddataḥ samyak tadā sūyaṁ bhaviṣyati.
Yadā Droṇañca Bhiṣmañca Pāñcālyau pātayiṣyataḥ,
tadā yajñavasānaṁ tadbhaviṣyati Janārddana.
Duryodhanaṁ yadā hantā Bhīmaseno mahāvalaḥ,
tadā samāpsyate yajño Dhārtarāṣṭrasya Mādhava.
Snuṣāśca prasnuṣāścaiva Dhṛtarāṣṭrasya saṅgatāḥ,
hateśvarā hatasutā hatanāthāśca Keśava.
Rudyatah saha Gāndharyā śvagṛdhrakurarākule,
sa yajñe'sminnavabhṛtho bhaviṣyati Janārddana.[1]

"O thou of Vrishni's race, a great Sacrifice of arms is about to be celebrated by Dhritarāstra's son! Thou, O Janarddana, wilt be the *Upadrashtri* of that sacrifice. The office of *Adhyaryu* also, O Krishna, in that sacrifice, will be thine! The ape-bannered Vibhatsu accoutred in mail will be the *Hotri*. (His bow) *Gāndiva* will be the sacrificial ladle, and the prowess of the warriors will be clarified butter (that is to be the consumed). The weapons called *Aindra*, *Pāçupata*, *Brāhma*, and *Sthunākarna*, applied by Arjuna, will, O Mādhava, be the *mantras* (of that sacrifice). Resembling his father, or, perhaps, excelling him in prowess, Subhadrā's son (Abhimanyu) will be the chief *Vedic* hymn to be chanted.

[1] *Mahābhārata*, *Udyogaparva*, Chapter 141, verses 29-51.

That destroyer of elephant ranks, that utterer of fierce roars in battle, that tiger among men, the exceedingly mighty Bhīma, will be the *Udgātri* and *Prastotri* in this sacrifice. King Yudhisthira of virtuous soul, ever enjoyed in *Yapa* and *Homa* will himself be the *Brahman* of that sacrifice. The sounds of conchs, tabors and drums, and the leonine roars rising high into the welkin, will be the calls upon the invited to eat. The two sons of Mādrī, Nakula and Sahadeva of great fame and prowess, will be the slayers of the sacrificial animals. Rows of bright cars furnished with standards of variegated hue will, O Govinda, be stakes (for tying the animals), O Janārddana, in this sacrifice ! Barbed-arrows and *Nālikas*, and long shafts, and arrows with heads like calf's tooth, will play the part of spoons (wherewith to distribute the *Soma* juice), while *To aras* will be the vessels of *Soma*, and bows will be *pavitras*. The swords will be *Kapālas*, the heads (of slain warriors) the *Purodāças*, and the blood of warriors the clarified butter, O Krishna, in this sacrifice. The lances and bright maces (of the warriors) will be pokers (for stirring the sacrificial fire) and the corner stakes (for keeping the firewood from falling down). The disciples of Drona and Kripa the son of Çaradwat will be the *Sadasyas* (assisting priests). The arrows shot by the wielder of *Gāndiva* and by (other) mighty car-warriors, and by Drona and Drona's son, will play the part of ladles for distributing the *Soma*. Sātyaki will discharge the duties of the chief assistant of the *Adhyaryu*. Of this sacrifice, Dhritarāstra's son will be installed as the performer, while this vast army will be his wife. O thou mighty arms, when the nocturnal rites of sacrifice will begin, the mighty Ghatotkacha will play the part of slayer of (devoted) victims ! The mighty Dhrishtadyumna, who sprang into life from the sacrificial fire having for its mouth the rites celebrated with *mantras*, will, O Krishna, be the *Dakshinā* of that sacrifice ! For those harsh words, O Krishna, that I said before unto the sons of Pāndu

for the gratification of Dhritarāstra's son,—for that wicked conduct of mine,—I am consumed with repentance! When, O Krishna, thou wilt behold me slain by Arjuna, then will the *Punaçchiti* of this sacrifice commence! When the (second) son of Pāndu will drink the blood of the loudly roaring Dusçāsana, then will the *Soma*-drinking of this sacrifice have taken place! When the two princes of Pāñchāla (Dhristadyumna and Çikhandi) will overthrow Drona and Bhishma, then, O Janārddana, will this sacrifice be suspended for an interval! When the mighty Bhimasena will slay Duryodhana, then, O Mādhava, will this sacrifice of Dhritarāshtra's son be concluded! When the wives of Dhritarāshtra's sons and grandsons, assembled together, deprived, O Keçava, of their husbands and sons, and without protectors, will indulge in lamentations with Gāndhāri in their midst, on the field of battle haunted by dogs and vultures and other carnivorous birds, then, O Janārddana, will the final bath of this sacrifice take place."[1]

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[1] P. C. Ray's Translation, *Udyogaparva*, section CXL, pp. 412-415.

Notes on War in Ancient India.

CHAPTER I.

Influence of Indian Geography on Wars and Military Movements.

India occupies the *Middle-southern* position on the continent of Asia. 'In no other part of the world, unless perhaps in Southern America, are the physical features on a grander scale.'[1] Mountain-guarded and sea-girt as she is, a glance at the map of India raises the thought in one's mind that it is perhaps the favoured land of the gods whose fortifications were planned and executed by the immortals for the safety of its inhabitants. The protection afforded by lofty mountains and plateaus and deep oceans and the existence of wide fertile plains watered by broad navigable rivers facilitated the early growth of wealth and thus India acquired from very ancient times the fatal reputation of being an *El Dorado*—the fabled land flowing with milk and honey. The result was a series of invasions and migrations from less favoured lands, resulting in bloody wars and conquests. It will be my endeavour in this chapter to show how far, if at all, these wars and bloody conflicts were influenced by the physical features of India. The subject is new at least so far as Indian history is concerned and I therefore crave the indulgence of my readers.

Before the appearance of Vasco da Gama in the Indian waters in 1498 India was never seriously threatened by any invaders from the sea.[2] In the north the lofty Himalayas

[1] *The Cambridge History of India*, Vol. I, p. 1.

[2] There were of course minor settlements of seafaring foreigners in the extreme south. *Cf.* Moplas in Malabar. But these were of no great historical importance.

backed by the Tibetan plateau also presented an effective resistance to all invaders from that side. It is only in the north-east and the north-west that India lay open to foreign attack. But fortunately no invasion of any importance entered India by the north-east routes before the 13th century and all the invasions and migrations which had far-reaching effect on Indian civilization and history came through the north-west side. Now let us examine the physical features of this frontier. An examination of the map will show that two lofty mountain ranges—I mean the Hindu Kush and the Koh-i-Baba which separate the Indus valley from that of the Oxus, form as it were an obtuse angle with the Karakoram range which again divides the Tarim basin from the Indus valley. Above this angle is the lofty Pamir plateau. The Himalayan range enters the cone of this angle like the shaft of an arrow. The whole region at first sight seems to be impenetrable but unfortunately the Hindu Kush 'is notched by some relatively low passes' which communicate with the Kabul valley thus affording the hungry people of *Turan* who accumulate on the Jaxartes and the Oxus valley comparatively easy access to the gates of India (Khyber route).[1] Five hundred miles to the south of this route the Afghan hills open out another passage to the people of *Iran* who assemble in the Helmand basin (Bolan route); some three hundred miles south of this passage there lies again a third route, along the low and barren Baluchistan coastline now known as Makran. But on account of the difficult and arid nature of the coastal region this route was very rarely used by invaders and the few who used it invariably met with disaster. Arrian informs us that when Alexander was thinking of retiring from India along this route he was told 'that no one had ever before escaped with an army by this route, excepting Semiramis on her flight from India.

[1] The more ancient route passed along the Kabul river and not through the Khyber defile

And she, they said, escaped with only twenty of her army, and Cyrus, the son of Cambyses, in his turn with only seven. For Cyrus also came into these parts with the purpose of invading India, but was prevented through losing the greater part of his army, owing to the desolate and impracticable character of the route.'[1] Alexander it is well known suffered untold miseries when he retreated from India along this passage.

The physical features of this region therefore require that all invasions to India must pass through either the Bolan or the Khyber route. British fortifications at Peshawar and Quetta show that our present masters are fully conscious of the strategic importance of the routes which were trodden from prehistoric times by all the nations of *Iran* and *Turan*. Another obvious conclusion from the position of the passes appears to be, that, while the invaders from the Oxus valley who entered India through the Khyber route at first occupied the Punjab and then gradually worked their way down the Indus valley, the nations who entered India from the Helmand basin, first occupied the lower Indus valley and then, making Sindh their base of operations, advanced either up the river or down the coastline. The Śakas, and probably also the Dravidians in the pre-historic period, followed this route when they entered India from the Seistan,[2] while the northern route was used by the Aryans, Persians, Macedonians, Bactrian Greeks and numerous other conquerors and invaders.

These two then are the two weak links in the chain of fortifications that guard this side of the Indian frontier and

[1] *Cambridge History of India*, Vol. I, p 331. The Arab invasion under Mohammad b. Kasim (712 A. D.) appears to have been an exception. See, Stanley Lane Poole, *Mediaeval India*, p. 8.

[2] *Ibid*, pp. 42, 564. Please take note also of the results of the recent excavations in Sind (Mohenjo-daro and Harappa), the alleged connection of the civilization with the Dravidian culture in India and Sumerian culture of the lower Euphrates and Tigris Valley and also Prof. Hall's theory about the affinity of the Sumerian Ethnic type with the present Dravidian type. *Ibid*, p. 43; Hall. *The Ancient History of the Near East* (4th Ed.), pp. 173-4.

history teaches us that invasions or tribal migrations nearly always disturbed the Indus valley whenever India failed to produce *dvârapâlas* like Candragupta Maurya, Bhoja or Ranjit Singh. But these invasions and migrations even though successful in storming these outer ramparts of India did not succeed in spreading over the whole of India. For a merciful providence had provided her with a second line of defence formed by the *Thar* or the great Indian desert and the Aravalli range. 'It would be,' says Sir Halford J. Mackinder, 'difficult to exaggerate the importance to India of the existence of the great desert of Rajputana.'[1] Rising from the Rann of Cutch it spreads in a north-easterly direction for 'some four hundred miles, with a breadth of 150 miles. In rear of the desert a minor bulwark is constituted by the Arāvalli range' which rising practically from Mount Abu in the Sirohi State of Rajputana ends in the Delhi ridge on the Jumna. Strengthened at the back by this range of hills the *Thar* presented an almost impenetrable waterless void to any invading army from the Indus valley. This therefore formed the second line of defence and aided by such natural fortifications, the Rajput tribes put up a gallant resistance against the Muslim invaders of India. But here also there is a weak point in the defensive works, for between the north-eastern extremity of the desert wall and the Himalayas (Siwalik Hills) there is a small area of fertile plain which serves as it were as a gateway from the Indus basin to the *Gaṅgā-Jamunā* valley. The northern portion of this plain being intersected by many rivers and streams, is unsuitable for military campaigns. The Southern portion, on which stands modern Delhi and which is not traversed by any rivers was therefore to be more precise, the real gateway between the Punjab plain to Hindustan; and nearly every invader after storming the outer fortifications of India formed by the

[1] *The Cambridge History of India*, Vol. I, p. 21.

Hindu Kush, Safed Koh and the Afghan hills and after conquering the Indus valley, always wanted to force open this passage. The physical features required it and he had no other alternative if he really wanted to conquer the Ganges valley. Similarly any ruler of Hindustan who wanted to conquer the Punjab had also to pass through this gate. The result had been a series of bloody conflicts near about the Delhi plain which had been whitened by the bones of the dead from the time of the semi-mythical Kuru king Dhṛtarāṣṭra to the present day. The battles of Kurukṣetra, Tarain (1191-92 A.D.), Panipat (1526, 1556, 1761 A.D.), Karnal (1739 A.D.), Mudki, Ferozeshāh and Aliwāl (1845-46), which are some of the decisive battles of Indian history were all fought on this plain and these conflicts sufficiently attest to the great strategic importance of this gateway. Agrammes defended this passage in the 4th century B.C. when the army of Alexander mutinied on the Beas and refused to advance further[1] and Pṛithvirāj, the gallant Chahamāna prince, defended it in the 12th century and fell fighting in the attempt to stem the tide of Islamic invasions which had already spread in the Indus valley.

This was therefore the second line of defence so far as northern India was concerned and with the storming of the Delhi gate the upper Ganges valley lay at the mercy of the invader. But as the invader advanced eastward he was suddenly stopped by another narrow passage near modern Rajmahal. The *Vindhyan belt* of almost impenetrable hills and jungles stretches from near the Gulf of Cambay for about a 1,000 miles in a slightly north-easterly direction. Near Allahabad the distance between the Ganges and the *belt* is reduced to about fifty miles and near Monghyr the distance is reduced to five (Kharagpur Hills).[2] The military road

[1] *Why did not Alexander cross the Beas* by H. C. Ray. *J. A. S. B.* (*New Series*), Vol. XIX, 1923, pp 365 ff

[2] Qanungo, *Sher Shah*, p. 100.

followed very closely the southern banks of the Ganges. For over and above the difficulties of crossing the Ganges, the area north of the river being intersected by numerous rivers, was generally avoided by military commanders. But a glance at the Physical Map of India will show that at the point N. lat. 25°, E. long. 87° 30′ the easternmost portion of the *Vindhyan belt* (Rajmahal Hills) rests as it were on the waters of the Ganges. The small town of Rajmahal in Behar stands at this point and the fortifications which were built by the Mahomedan rulers here, used to command the passage to Bengal. It has therefore been with some exaggeration described as the 'Gallipoli of mediaeval Gaur'[1] whose rulers spent their best energy and resources in fortifying the pass.' The names of some of the railway stations near Rajmahal such as Sakrigalli or Sakri-defile are still reminiscent of the importance of this place. 'The fort of Teliagarhi, whose ruins are still visible, stood, at the mouth of this defile, completely blocking it' and it was a 'position which could neither be stormed nor closely invested in an age when artillery was not efficient.'[2] It was at this place that Mahmud Shah, the king of Gaur, tried to stop the advance of Sher Khan from the west in the year 1536 and was only defeated by the brilliant strategy of the *Tiger lord.* In 1659 Shuja also made his last stand near this place and was only dislodged by the superior generalship of Mir Jumla.[3] Another such strategic position is formed by the Kharagpur hills some 70 miles to the west of Rajmahal which leave also a very narrow plain between them and the Ganges and it is interesting to note that the rulers of Behar and Bengal, before making their final stand at Rajmahal, tried to resist the enemy from the west, at this place. Thus both Mahmud Shah and Shujā first tried to resist their foes here, taking advantage of the

[1] Qanungo, *Sher Shah*, pp. 121 ff.

[2] *Ibid.*

[3] Sarkar, *History of Aurangzib*, Vol. II, pp. 241 ff.

strategic importance of that region. It was also at this place that 'Sulan Adeli, the last of the Surs, lost his crown' where the first of the Surs '(Sher Shah) had won it'[1] (Battle of Surajgarh 1534 A.D.). It is to be observed, however, that the hills attached to the easternmost portion of the belt which I have called *Vindhyan*, is generally not very high and they could not specially in the cold season prevent brilliant generals and strategists like Sher Shah and Mir Jumla from passing through them and destroying to a great extent the strategic value of these posts in eastern India.[2] But once these positions fell the whole of eastern Behar and Bengal lay at the mercy of the invader from the west. These natural defences therefore can be described with some justice as the third line of defence so far as northern India is concerned. There was a fourth line of defence formed by the Brahmaputra and its tributaries which had behind them the mountain walls of Assam. This barrier effectively checked the onrush of the Mahomedan cavaliers led by commanders like Bakhtyār and Mīr Jumla and sheltered the Hindu States of Eastern Bengal and Kamrup.

Let us now proceed to the consideration of the peninsular portion of India. It is well known that this portion is separated from the Indus and the Ganges plains by a belt of mountains, hills and jungles inhabited by dangerous animals and still more dangerous savage races. This belt, which I have called for convenience *Vindhyan*, has to some extent prevented successful military leaders of the north from penetrating into the interior of the Indian peninsula. This has been therefore a real boon to the peoples of the Deccan and far south for though it is true that the south did not remain inviolate from the hands of the spoilers of the north yet this natural rampart succeeded for some time

[1] *Sher Shah*, pp. 100-101.

[2] *History of Aurangzib*, *ibid*; *Sher Shah*, *ibid*.

at least in checkmating their southward course, and even when they entered the south, they appeared to be greatly modified by their long stay in India. Thus the forces of Islam had their iconoclastic zeal and hostility towards the Hindus sufficiently modified when they appeared as conquerors in the south. This explains to a great extent the preservation of Hindu architectural works and archaic social and religious features in the peninsula, while many or most of them in north India were shattered by the fury of the followers of the Prophet.

But though the *Vindhyan belt* thus to a great extent effectively prevented easy penetration and spoliation of the Indian peninsula, it is nevertheless a lesson of history that whenever there arose any strong power in Hindustan, its first objective was to conquer the south. The rulers of the Deccan and the *Tāmilakam* also, on many occasions, raided the north seeking conquests in the *Uttarāpatha*. These facts require no illustration and are well known to all students of Indian history. But I should like to discuss here some of the routes of penetration of these kings and military leaders. Are there any routes marked out as it were by nature herself? In his *Carmichael Lectures*, Prof. D. R. Bhandarkar has shown that the Aryans wen tto south India 'straight through the Vindhyas,' but he does not suggest that the Māhiṣmatī-Ujjayinī route was practicable in the 6th century B. C. for the passage of large well equipped armies.[1] In the Moghul period however this route appears to have developed into one of the great highways of the southand passing right across Malwa it reached Burhanpur. The forts of Asirgarh and Gawilgarh guarded this approach to the south. In this connection I beg to draw the attention of scholars to the western and eastern extremity of the *Vindhyan belt*. If we look westwards, we find that between the Gulf of Cambay and the westernmost portion of the *belt*, there is an area of low fertile

[1] Pp. 5; 21-22.

land. We shall call this plain the *Baroda gap* and this region corresponds very roughly to the ancient Lāṭa and Gujarāṭa. This gap, it will be observed, easily communicates itself with the lower Indus Valley (Sindh), through the lowlying plain near the Rann of Cutch. From very ancient times the peoples of the Indus valley penetrated into the Deccan through this gateway. 'Baudhāyana, the author of a *Dharmaśāstra* quotes a verse from the Bhallavin School of Law which tells us that the inhabitants of Sindhu, Sauvīra and Surāshṭra like those of the Deccan were of mixed origin. This shows that the Aryans had been colonising those parts'[1] and I have no doubt that besides the sea route, a land route across this gap must have been followed by the Aryans. In fact whenever any power from the lower Indus valley wanted to penetrate into the Deccan it generally advanced through this gap. The strategic importance of this passage seems to have been recognised from very ancient times by the rulers of the Deccan. The Śātavāhanas placed one of their viceroys at Paithan[2] and attempted for many centuries with varied success to stem the tide of Scythian penetration from the Indus valley along this route. In fact the whole history of the Śātavāhanas may be represented to be one unceasing attempt to act as the *dvārapālas* of one of the main gateways of the south; and I have no doubt that this continuous struggle against the Kṣatrapas of the powerful Scythian Emperors of the Indus Valley contributed to no small extent to bring about their downfall. The same policy was also followed by the Calukyas, and we find Pulakeśin II placing his second brother Jayasimha as Viceroy 'in the district about Nasik.'[3] It is well known that Pulakeśin II assumed the title Parameśvara by frustrating the attempt of Harṣa Śīlāditya to extend his power to the south of the Narmadā.[4]

[1] *Carmichael Lectures*, 1918, pp. 23-24.

[2] Bhandarkar, *Early History of the Deccan*, p. 20

[3] *Bombay Gazetteer*, Vol. I, Part II, p. 185.

[4] *Ibid*, pp. 183-184 Watters, *Yuan Chwang*, Vol. II, p. 239.

It is generally accepted that the fight occurred somewhere on that river. But nobody has as yet accurately defined the area where the conflict took place. The following facts however seem to indicate that Śīlāditya probably threatened this great highway to the south. The Broach copperplate grant tells us that when the king of Valabhi was overpowered by Harṣa he was rescued by Dadda. But the fact that such a princeling like the Gurjara king of Broach succeeded in resisting Harṣa who 'at the head of all the troops of the five Indies' carried 'his victorious arms from the east to the west' certainly requires an explanation. This is supplied by the Aihole inscription of Pulakeśin II which tells us that the Lāṭas, Mālavas and the Gurjaras *voluntarily* submitted to him and I believe the suggestion recently made by Dr. R. C. Majumdar that Harṣa was defeated by a confederacy of the small powers in this area backed by the mighty arm of Pulakeśin II[1] is sufficiently justified by the facts detailed above. The policy was further developed in the time of his son Vikramāditya I, who established his younger brother Jayasimhavarman Dharāśraya in Southern Gujarat or the country called Lāṭa and this led to the foundation of a feudatory Calukya kingdom with its capital at Navasāri, thus completely blocking this passage. The wisdom of this policy was soon demonstrated. For the Arabs had by this time conquered the lower Indus valley and these followers of the Prophet after consolidating their positions in Sindh began to make repeated attempts to force this gate. But they met with considerable difficulties. We know from a grant of Pulakeśi, one of the feudatory W. Calukya princes, 'that he vanquished an army of *Tājikas* which had destroyed the Saindhava, Kachhella, Saurāshṭra, Chāvoṭaka Maurya, Gurjara and other kings and on its way to Dakshināpatha to conquer the Southern kings had come to Navasārī to reduce that country first. Thereupon Vallabhanarendra,

[1] *Harsavardhana—A Critical Study*, *J.B.O.R.S.*, Vol. IX, 1923, p. 314.

who must have been Vijayāditya or Vikramāditya II, the reigning sovereign of the main branch, conferred upon him the titles of "Pillar of Dakshiṇāpatha (Dakshināpathasādhāra), "Ornament of the family of Chaluka" (Chalukakulālaṁkāra), "Beloved of the earth" (pṛithivīvallabha), the "Repeller of the unrepellable" (Anivartakanivartayitṛi) and "support of men in the world" (Avanijanāśraya").[1] The strategic importance of this area was also recognised by the Rāṣṭrakūṭas who continued the policy of their predecessors. Govind III assigned the province of Lāṭa, situated between the Mahi and the Lower Tapi, to his brother Indra who became the founder of a feudatory dynasty in this region.[2]

The above I hope will sufficiently establish the strategic importance of the *Baroda gap*. Let us now turn to the east of the *Vindhyan belt*. Here also nature has marked out a route which was trodden from prehistoric times by the people of the lower Ganges valley when they attempted to enter the *Dakṣiṇāpatha*. If we consult plates 4 and 5 of the Atlas Volume (XXVI) of the Imperial Gazetteer (*New Edition*)[3] we will find that the Eastern Ghats as they spread in a slightly north-easterly direction, from the mouth of Godavari to the lower Mahanadi, leave a long narrow margin of low land between themselves and the sea. Prof. D. R. Bhandarkar has suggested[4] that a portion of the Aryan

[1] *Bombay Gazetteer*, Vol. I, Part II, pp. 187-88, 310. Tājika is a name applied to the Arabs. 'We have mention of such invasions between the years 711 and 750 A.D. by Mahammad Kasim and his successors.' Valabhi was destroyed by Arab invasion c. 750-770 A.D.

[2] *Ibid*, p 199

[3] Also plate I in Charles Joppen's *Historical Atlas of India*.

[4] *Carmichael Lectures*, 1918, p. 24n. His further suggestion on p 40n that the Aryans did not proceed to Kaliṅga by the eastern route certainly requires modification, in view of the fact that many of the *Jātakas* and the *Mahāvamsa* show intimate and close relationship between Magadha, Rāḍha Vaṅga and Kaliṅga. Even if it is accepted that the Pāli Buddhist canon 'does not know Vaṅga Puṇḍra and Suhma,' how is he going to explain away the mention of 'pathless countries of the Lāḍhas' in the Jain scriptures. Lāḍha is certainly Rāḍha, *i.e.*, roughly the Burdwan Division. I shall return to the discussion in a separate paper. For references to Vaṅga, Suhma and Rāḍha, in early Buddhist Literature, see *Early History of Bengal* by R. C. Majumdar (Dacca University publication, p. 8).

settlers reached the Kistna District from Kaliṅga and if this suggestion is correct then these early conquerors and settlers must have followed a route that passed along this plain. The estuaries of the Mahanadi and the Brahmani are now occupied by the Districts of Puri and Cuttack and these districts communicate with the Midnapore district of the Burdwan division through another narrow plain which is shown on the map as Balasore district. On the west of this plain lies the dense Mayurbhanj and Nilgiri hills while on the eastern side are the waters of the Bay of Bengal. Therefore it will be clear to any body examining the orographical features of this portion of India that the great highway that connected the lower Ganges plain with Deccan and *Tāmilakam* must have passed through this area watered by the lower courses of the Suvarnarekha, Brahmani, Mahanadi and Godavari. Roughly speaking the route must have more or less, followed the line of the Bengal Nagpur Railway.[1] The whole area from the Bhanrer range to the Rajmahal hills in the north, the Parasnath Hill to the Dewodi Munda in the Eastern Ghats, in the East and South, and from the latter to the Mahadeo Hills in the west, was always inaccessible to big armies on account of the dense jungle, hills, wild animals and tribes inhabiting this tract. Therefore that was the only practicable road which had to be followed by military leaders when they wanted to penetrate into the south. Thus it is nothing surprising that the great Gupta emperor Samudragupta should follow this route when he proceeded to the south from Magadha to attack the *Dakṣiṇāpatha* rajas.[2] Again when Rājendra Gangaikonda sent his generals towards northern India and defeated the kings of Bengal, Behar, and Orissa, his army must have followed the same route from the south. The list of places conquered

[1] *Imperial Gazetteer of India (New Edition)*, Vol. XXVI (Atlas), plate 24.

[2] Joppen, *Historical Atlas of India*, plate 7.

in this Northern expedition are all situated either on or near the route which we have traced.[1]

Now I should like to draw the attention of scholars to the strategic importance of the area which lies between the estuaries of the Kistna and Godavari. This region was known in ancient times as Andhradeśa, the home-province of the Śātavāhanas.[2] Later it came to be known as Veṅgi and is now included in the Kistna District. A little observation will show that any invader from north-eastern India, who was proceeding along the route above detailed, was stopped on the northern bank of the lower Godavari. On his right lay the Eastern Ghats with its heights ranging from three to six thousand feet, while in his front lay the broad mouth of the Godavari. He was certainly here in a difficult position and I have no doubt that the Deccani and South Indian Kings could most effectively oppose such an invader at this point. In this connection the following observation of Prof. Jouveau-Dubreuil of the Pondicherry College appears to be interesting. Discussing some of the aspects of the invasion of Samudragupta the learned doctor says :—"Then he reached the coast of Orissa. Mantarāja, king of Korāla, Mahendra of Pishṭapura, Svāmidatta of Koṭṭūra, a citadel on the top of a hill, and Daman of Erandapali tried to stop him but were captured. Samudragupta now prepared to make new conquests when he was *opposed by a confederacy of all the kings that reigned near the mouths of the Godavari and the Kṛshna* the most powerful of them being Vishnugopa, the Pallava king of Kanchi....Samudragupta being repulsed by the kings of the Eastern Deccan, abandoned the conquests he made in the coast of Orissa and returned home."[3]

[1] See for details and the names of these kings and countries, K. S. Aiyanger, *Ancient India*, Chapter VI. p. 107

[2] There are differences of opinion regarding this question. See Raychaudhuri *Political History of Ancient India*, p. 220.

[3] G. Jouvean-Dubreuil, *Ancient History of the Deccan*, p. 61.

If the above observations of the learned professor be correct then I must attribute the defeat of Samudragupta to the fact that he was caught by the Southern kings at that strategic point.

Besides this, the Kistna District is also important for other reasons. From very ancient times the peninsular portion has been divided into two political and to a certain extent geographical units. The region to the north of the rivers Kistna-Tungabhadra can be conveniently designated the Deccan while the southern portion can similarly be called, the *Tāmilakam*. Now it is well-known that these two areas had been the seat of rival contending dynasties who regarded each other as *prakṛtyāmitra* or natural foes. Thus each tried to invade the territories of the other. In this conflict the Kistna District was regarded as one of the gateways leading to each of these political and territorial units. And this was rightly so, for a glance at the plate showing the Orographical features of India[1] will reveal that this region lies between the Nallamalai Hills and that portion of the Eastern Ghats which contains the Dewodi Munda. Being also protected on two sides by the estuaries of the Kistna and the Godavari it assumes the appearance of an entrenched area and anybody who was in possession of this plain could easily dominate either the Carnatic or the upper valleys of the Godavari and Kistna.

For all these reasons there was always a rivalry between the rulers of these two regions for the possession of the Kistna District. Pulakeśin II saw the strategic importance of this plain and soon after consolidating his possession in the Deccan, he conquered and placed this province under the Viceroyalty of his younger brother Kubja Viṣṇuvardhana otherwise called Vishamasiddhi.[2] He thus indirectly helped the foundation of an independent Eastern Calukya dynasty

[1] *Imperial Gazetteer of India (New Edition)*, *Atlas*, Vol. XXVI, plate IV.

[2] *Bombay Gazetteer*, Vol. I, Part II, p. 185.

which continued to be the guardians of this gateway till the time of Kulottunga I who in c. 1070 A.D. brought the province under the Colas. Many were the bitter wars that were waged during this period by the rulers of the South and the Deccan to recover the possession of this area.[1]

But this was not the only arena of the conflicts between the Deccani kings and the rulers of the South. Another important geographical area was the doab between the rivers Kistna and Tungabhadra. The strategical importance of this area cannot be overestimated. The possession of this plain gave a natural advantage to the ruler who possessed it, over his neighbour, whose territories lay at the mercy of his invading armies. Thus it happened that while the Deccani rulers considered the river Tungabhadra to be their scientific frontier in the south, their southern neighbours had different ideas about their northern frontier and made determined attempts to extend their boundaries on this side, to the banks of the Kistna. This idea seems to have dominated the foreign policy of the rulers of these two areas for more than a thousand years. Dynasties changed and ages passed and vanished into eternity but the struggle went on unabated. I have already referred to the struggles between the rulers of the *Uttarāpatha* and the Deccan. Whenever there was a strong power on either side of the *Vindhyan belt* he usually tried to invade and conquer the territories on the other side of the belt. Here also from the time of the Vākāṭakas and the Kadambas[2] (c. 375 A.D.-530 A.D.) to the time of Haidar Ali and the Mahrattas (c. 1761 A.D.) the chequered history of these conflicts can be clearly traced and it is my contention that this struggle mainly raged in or about the tongue of land formed by the Kistna and the Tungabhadra. Many of the decisive battles in the wars between the Calukyas and Colas such as Koppam (1052-53 A.D.) and Kudal Sangaman (1062-63 A.D.) were fought on the Tungabhadra.

[1] *Ibid*, pp. 326-27, 198, 396, 402-03, 199, 402, 412, 215, 442, 237, 334, 445, 525, 308,

[2] *Dubreuil*, *Ibid*, pp. 73 and 75.

On account of the strategic importance of this doab a number of strong forts were gradually built up in this region. The most important of these which are prominently mentioned in mediaeval and early British History are Raichur, Mudgal and Kopal.[1] Some of these forts are repeatedly mentioned in connection with the history of the Bahamani dynasty (1347-1526 A.D.) and the kingdom of Vijaynagar (1336-1565 A.D.) which is marked by a series of bloody struggles for the possession of "the rich plain bounded by Kistna and Tungabhadra."[2] In the course of an interesting discussion of this question Major T. W. Haig makes the following observations.

"The old fort and city of Raichur lie in the Duab or interfluvial area between the Krishna and its principal tributary, the Tungabhadra.....The history of Raichur Duab is the history of the struggle between the Muhammadan kingdom of the Deccan and the Hindu kingdom of the Peninsula for supremacy in Southern India."[3]

The importance of this fertile strip of land and the forts built on it had not diminished even in the 17th century. Sabhasad, the almost contemporary biographer of Sivaji, the great Maharatta leader, referring to the capture of Kopal by Moro Pant mentions the fort as *the gate of the South*[4] (*Kopal Mhanje Daksanacha daravaja*).[5] Even as late as the 18th century, Sir John Malcolm writing about his experience in the Mysore war describes the fort of 'Copoulee' as "without exception, the strongest place I have seen in India.[6]

[1] Consult Joppens, *Atlas*, plate 20.

[2] *Ibid*, p. 10.

[3] *Historic Landmarks of the Deccan*, pp. 105 ff. The battle of Talikota (1565 A.D) was fought on this Doab near the fort of Mudgal.

[4] *Siva Chhatrapati*, translated by S. N. Sen, Calcutta University, p. 112.

[5] *Siva Chhatrapatichem Charitra*, Ed. by Kasinath Narayan Sane, p. 81.

[6] J. W. Kaye, *The Life and Correspondence of Sir John Malcolm*, Vol. I, p. 17. I am grateful for some suggestions in this chapter to my friend Prof. T. Chakravarti and Dr. H. C. Raychaudhuri of the Department of History, Calcutta University.

The above discussion I hope will give an idea of the importance of the physical features on the course of military movements and warfare in general. The facts that I have placed at the disposal of the scholars might be defective or insufficient but I hope that a more intensive study will reveal many more interesting facts about this question. I shall feel my attempt justified if I have succeeded in convincing scholars of the necessity of studying Indian history from this new standpoint.

CHAPTER II.

The Army (Bala, Daṇḍa, Sainya, etc.).

Senā śastrāstrasamyuktamanuṣyādigaṇātmikā
Sainyādvinā naiva rājyam na dhanam na parākramaḥ.

'The army is the group of men, animals, etc., equipped with arms, missiles,' etc.

'Without the army there is neither kingdom nor wealth nor prowess."—*Śukranīti.* Chapter IV.

Recruitment.

In ancient India fighting was recognised to be a sacred duty of all the castes pure or mixed [1] and armies were therefore recruited not exclusively from the Kṣatriyas but from all the sections of the community. In the Vedic period the Vaiśyas were probably recruited as foot-soldiers (*patti*) and 'formed the bulk of the force under Kṣatriya leaders';[2] but in the period which saw the composition of the *Arthaśāstra* of Kauṭilya, armies were recruited from all the castes. Kauṭilya in the following lines discusses the relative efficiency of armies composed of Brāhmanas, Kṣatriyas, Vaiśyas and Śūdras:

Caste.

[1] *Śukranīti*, Trans. by Sarkar, I, Line 868.

[2] *Vedic Index*, II, p. 334.

" Brāhmaṇa-Kṣatriya-Vaiśya-Śūdrasainyānām tejaḥ-prādhānyāt purvampurvam śreyassamnāhayitum " ityācāryāḥ.

Neti Kauṭilyaḥ-praṇipātena Brāhmabalam paro'bhihārayet. Praharaṇavidyāvinītam tu Kṣatriyabalam śreyaḥ; bahulasāram vā Vaiśyaśūdrabalamiti.[1]

'My teacher says that of the armies composed of Brahmans Kshatriyas Vaiśyas, or Śūdras, that which is mentioned first is on account of bravery, better to be enlisted than one subsequently mentioned in the order of enumeration.

No, says Kauṭilya, the enemy may win over to himself the army of the Brāhmans by means of prostration. Hence, the army of Kshatriyas trained in the art of wielding weapons is better; or the army of Vaisyas or Sudras having great numerical strength (is better).'[2]

Thus it is clear, that in his opinion armies recruited from the Brāhmaṇas and Kṣatriyas were superior to the same recruited from the two lower castes, whose greater numerical strength could only compensate for their relative inefficiency. But for all practical purposes he preferred an army recruited entirely from the Kṣatriyas, for as he quaintly remarks 'the enemy may win over to himself the army of Brāhmans by means of prostration.'

The next question of importance in this connection, that faced the army leaders of ancient India, as it faces them even now, was the problem of forming homogeneous units from the different Indian castes. Was a regiment formed by accepting recruits from the different *varṇas* or whether it only contained men of one caste. The practical difficulty of forming mixed regiments in India was recently described by a military officer with some exaggeration, in one of the local papers. He said that if for instance a regiment in these days was recruited from Brāhmaṇas and

[1] Mysore ed., 1919, p. 345.

[2] Translation by Shama Sastry, 1915, pp. 417-18. This view appears to have been shared also by Kāmandaka. See his *Nītisāra*, IV, 65-67.

Rajputs who consider themselves to be Kṣatriyas, then the Rajputs even though they might be senior officers would be always clasping the feet of the Brāhmana privates; – this of course leading to serious breaches of military discipline. The same difficulty must have been felt also by the military department of ancient India for we find Kauṭilya expressing the following opinion on the point:

"That army which is vast and is composed of various kinds of men and is so enthusiastic as to rise even without provision and wages for plunder when told or untold; that which is capable of applying its own remedies against unfavourable rains; that which can be disbanded and which is invincible for enemies; and that, of which all the men are of the *same country*, *same caste*, same training, is (to be considered as) a compact body of vast power." [1]

Thus we see that he is advocating the recruitment of soldiers belonging to the same country and caste, *tulya desajāti* in the army, as this would lead to homegeneity and strength. But the formation of armies from Brāhmaṇas, Kṣatriyas, Vaiśyas and the Śūdras raised another problem. In most periods of ancient Indian history the killing of a Brāhmaṇa was considered to be a *mahāpātaka* and they enjoyed more or less immunity from capital punishment.[2] How could then the armies fight confidently, feeling as they did that every movement of their weapons would possibly kill a Brāhmaṇa? This difficulty, as it appears from the following, was taken into consideration, and it was decided by the ancient sages that one was not guilty of slaying a Brāhmaṇa who killed in battle a person of that crder that took up weapons like a Kṣatriya and fought without seeking to fly. Bhīṣma

Killing of a *Brāhmana* in war is not a sin.

[1] *Ibid*, p. 416. Text, p. 344.

[2] See my paper on *Position of the Brāhmana in Kautilya*, *Proceedings and Transactions of the second Oriental Conference*, Calcutta, pp. 394-5. *Manusaṁhitā*, IX, 235; 55 etc. For exceptions see Raychaudhuri, *Political History of Ancient India*, pp. 191-92.

while fighting with his Brāhmaṇa preceptor Rāma, a son of Jāmadagni said :—

Gurum na hanyām samare Brāhmanañca viśeṣataḥ,
viśeṣatastapovṛddhamevaṁ kṣāntam mayā tava.
Udyateṣumatho dṛiṣṭvā Brāhmaṇam Kṣatrabandhuvat,
yo hanyāt samare kruddhaṁ yudhyantamapalāyinam.
Brahmahatyā na tasya syāditi dharmeṣu niścayaḥ.
Kṣatriyāṇām sthito dharme ksatriyo'smi tapodhana.
yo yathā vartate yasmiṁ stasminneva pravarttayan
nādharmaṁ samavāpnoti na cāśreyaśca vindati.[1]

'I would not slay my preceptor in battle, especially again a Brahmana, and more especially one endued with ascetic merit. It was for this that I forgave thee. It is a well known truth gatherable from the scriptures that he is not guilty of slaying a Brahmana who killeth in battle a person of that other that taketh up weapons like a wretched Kshatriya and fighteth wrathfully without seeking to fly. I am a Kshatriya stationed in the practice of Kshatriya duties. One doth not incur sin, nor doth one incur any banefulness by behaving towards a person exactly as that person deserveth.'[2]

Going into the details of the constitution of the Indian army we find that it contained troops of different kinds. Kauṭilya in his chapter on the time of recruiting the Army, etc.,[3] recognises as many as six kinds of such troops :

Saḍaṅga bala.

Maulabhṛtakaśreṇīmitrāmitrāṭavībalā.

'hereditary troops (*maula*)[4] hired troops, soldiers of corporations, (*śreṇī*) troops belonging to a friend or to an enemy and wild tribes.'

[1] *Mahābhārata*, Udyogaparva (Vangavāsi Ed.), Ch. 179, V. 27-30.

[2] *Ibid*, Trans. by P. C. Ray, p. 520.

[3] Text pp. 342 ff., 'The *Rāmāyaṇa* refers to 4 kinds of troops—*maula*, *mitra*, *bhṛtyabalam* and *dvisadbalam* (enemy forces). *Laṅkā*, Ch. 17, v. 24.

[4] *Maula*, probably means a standing army, the soldiers of which had served the state, long and faithfully.'

Discussing the relative efficiency of these troops, Kauṭilya expresses the following opinion: [1]

Relative efficiency of the different kinds of troops.

"Of these armies, that which is mentioned first is better than the one subsequently mentioned in the order of enumeration. *Maula* troops is better than the hired troops (*bhṛtaka*) in as much as the former has its existence dependent on that of its master and is constantly drilled.

"That kind of hired *bala* which is ever near, ready to rise quickly, and obedient, is better than the troops supplied by a corporation."

"That *Śreṇībala* which is native (*jānapada*), which has the same end in view, and which is actuated with similar feelings of rivalry, anger, and expectation of success and gain, is better than the troops supplied by a *mitra*."

"The troops supplied by a *mitra* is better than that supplied by an enemy" [2] (*amitra*).

"*Amitrabala* [3] under the leadership of an *Ārya* is better than the army of wild tribes (*aṭavībala*). Both of them are anxious for plunder. In the absence of plunder and under troubles they prove as dangerous as a lurking snake (*avilope vyasane ca tābhyāmahibhayaṁ syāt*." [4]

Before I conclude this section I would like to draw the attention of scholars to the following passage from Plutarch's account of the invasion of India by Alexander.

"As the Indian mercenary troops consisting as they did of the best soldiers to be found in the country, flocked to the cities which he attacked, and defended them with the

[1] Text, p. 344 ff.

[2] Text 345, footnote 1. This line appears to have been accidentally dropped from the text.

[3] The enemies who were not actually at war sometimes probably aided each other for instance when fighting against a common enemy; or enemy troops might also be weaned over.

[4] Translated by Dr. Shama Sastry, p. 417; I have adopted his translation with some modifications.

greatest vigour, he thus incurred serious losses and accordingly concluded a treaty of peace with them." [1]

The above passage is interesting not only because it shows the remarkable efficiency of the hired troops of India but also because it shows that the *bhṛtakabala* though inferior to the *maula*, yet often contained some of the best soldiers of India. The *maulavala* is probably described by Megasthenes and Arrian as "the fifth caste among the Indians" consisting of warriors "who are second in point of numbers to the husbandmen." According to the Greek ambassador this "class when not engaged in active service, pass their time in idleness and drinking. They are maintained at the king's expense, and hence are always ready, when occasion calls, to take the field, for they carry nothing of their own with them but their own bodies." [2] The above description seems to indicate that this body of men formed like the *maulas* the standing army of the state, consisting of well-tried war veterans. This becomes more clear from the following account of Arrian. He tells us that these men like the modern soldiers in peace time apparently lead a life of supreme freedom and enjoyment. "They have only military duties to perform. Others make their arms, others supply them with horses, and they have others to attend on them in the camp, who take care of their horses, clean their arms, drive their elephants, prepare their chariots and act as their charioteers. As long as they are required to fight they fight, and when peace returns they abandon themselves to enjoyment, the pay which they receive from the State being so liberal that they can with ease maintain themselves and others, besides." [3]

Having discussed the relative merits of various kinds of troops Kauṭilya next enters into an interesting

[1] McCrindle, *Ancient India ; Its Invasion by Alexander the Great*, p. 306.

[2] McCrindle, *Ancient India as described by Megasthenes and Arrian*, p. 85.

[3] *Ibid*, p. 211.

discussion about the time and circumstances when each of these various kinds of troops could be most effectively used. He says: "when he (a king) thinks that his *maulabala* is more than he requires for the defence of his own possessions or he thinks that as his hereditary army (*maulabala*) consists of more men than he requires, some of them may be disaffected, or when he thinks that his enemy has a strong hereditary army famous for its attachment, and is therefore, to be fought out with much skill on his part; or when he thinks that though the roads are good and the weather favourable, it is still the hereditary army that can endure wear and tear; or when he thinks that though they are famous for their attachment, hired soldiers and other kinds of troops cannot be relied upon lest they might lend their ears to the intrigues of the enemy to be invaded, or when he thinks that other kinds of force are wanting in strength, then is the time for taking the hereditary army (*maulabalakāla*)."

Maulabalakāla.

"When he thinks that his *bhṛtabala* is greater than his *maulabala*; that his enemy's *maula* troops are small and disaffected, while the army his enemy has hired is insignificant and weak; that actual fight is less than treacherous fight; that the place to be traversed and the time required do not entail much loss; that his own army is little given to stupor, is beyond the fear of intrigue, and is reliable; or that little is the enemy's power which he has to put down, then is the time for leading the hired army (*bhṛtabalakāla*)."

Bhṛtabalakāla.

"When he thinks that the big *śreṇībala* that he possesses can be trusted both to defend his country and to march against his enemy; that his enemy's army consists mostly of soldiers of corporations and consequently the enemy is desirous of carrying on treacherous fight rather than actual

Sreṇībalakāla.

war, then is the time for the enlistment of the troops from corporations (*śreṇibalakāla*)."

Mitrabalakāla.

"When he thinks that the strong help he has in his friend can be made use of both in his own country and in his marches; that he has to be absent only for a short time and actual fight is more than treacherous fight; that having made his friend's army to occupy wild tracts, cities or plains and to fight with the enemy's ally, he himself would lead his own army to fight with the enemy's army; that his work can be accomplished by his friend as well; that his success depends on his friend; that he has a friend near and deserving of obligation; or that he has to utilize the excessive force of his friend, then is the time for the enlistment of a friend's army (*mitrabalakāla*)."

Amitrabalakāla.

"When he thinks that he will have to make his strong enemy to fight against another enemy on account of a city, a plain, or a wild tract of land, and that in that fight he will achieve one or the other of his objects, just like an outcast person in the fight between a dog and a pig; that through the battle, he will have the mischievous power of his enemy's allies or of wild tribes destroyed; that he will have to make his immediate and powerful enemy to march elsewhere and thus get rid of internal rebellion which his enemy might have occasioned; and that the time of battle between enemies or between inferior kings has arrived, then is the time for the exercise of an enemy's forces (*amitrabalakāla*)."

Aṭavibalakāla.

"...When he thinks that the army of wild tribes is living by the same road (that his enemy has to traverse); that the road is unfavourable for the march of his enemy's army: that his enemy's army consists mostly of wild tribes; that just as a wood apple is broken by means of another wood apple (*bilvam bilvena hanyatām*), the small army of his enemy is to be

destroyed, then is the time for engaging the army of wild tribes (*aṭavībalakāla*). [1]

The above views, including Kauṭilya's observations on the six kinds of troops are practically all shared by Kāmandaka. [2] The six kinds of troops are also probably mentioned by Manu in the following verse:

Saṁśodhya trividham mārgam saḍavidhañca balam svakam
sāmparāyikakalpena māyādaripuraṁ śanaiḥ [3]

("Having cleared the three kinds of roads, and having made his sixfold army efficient, let him leisurely proceed in the manner prescribed for warfare against the enemy's capital.") [4] The *Śukranīti* however expresses a somewhat different opinion on the whole question. He says:

"The army is of two kinds—one's own, and that belonging to the allies. Each again is of two kinds accordingly as it is—(*i*) long standing, or (*ii*) newly recruited, and also as it is—(*i*) useful, or (*ii*) useless."

"The army is of two kinds: untrained or trained; officered by the State or not officered by the State; equipped by the State with arms or supplying their own arms and ammunitions; bringing their own vehicles or supplied with vehicles by the State."

"The *army that belongs to the allies* is maintained through goodwill, one's own army is however maintained by salary."

"The *maula* army is that which has been existing for many years, the *sādyaska*, which is not that."

"The *sāra*, efficient or useful army is that which is adept in warfare, the contray is the *asāra*."

"The trained army is that which is skilled in the *vyuhas* or military tactics, the opposite is the untrained."

[1] Text, p. 342 ff.; Trans., pp. 415-16.

[2] *Nītisāra*, XVIII, v. 2-25 ff.

[3] VII, 185.

[4] S. B. E., Vol. XXV, p. 245. Some of the commentators (Medhātithi, Kūllukabhaṭṭa, etc.) however accept a different interpretation; see Bühler's footnote on verse 185.

"The *gulmibhuta* army is that which has officers of the State, the *agulmaka* is that which brings its own chiefs."

"The *dattāstra* army is that which receives arms, etc., from the master, otherwise is the army which supplies its own arms and missiles."

"The army regimented by the State, and the regiments formed among the soldiers by themselves; likewise the army receiving conveyances from the State (or not)."

"The *Kirāta* and people living in forests who are dependent on their own resources and strength (belong to the latter class)."

"The troops left by, or captured from, the enemy and placed among one's own people as well as one's own troops tampered with by the enemy, should be regarded as inimical."[1]

It will be seen from the above that the *Śukranīti* mainly recognises two kinds of military recruitment, *viz.*, (*i*) troops (*maula*) that had served the State for a long number of years and were regarded more or less as a standing army of the State, which were officered by the State (*gulmībhūta*), and received pay, arms, vehicles and ammunition (*dattāstra*) from their master, and (*ii*) the hired troops who brought their own officers (*agulmaka*), and also their own vehicles, arms and munitions. This was probably the *bhṛtabala* of the *Arthaśāstra* and the *Nītisāra*. A closer study will however reveal that the *Śukranīti* was also familiar with three other kinds of troops mentioned by Kauṭilya and Kāmandaka, *viz.*, *mitrabala* (army that belongs to the allies),[2] *aṭavībala* (the *Kirātas* and people living in the forest)[3] and *amitrabala* (the troops left by or captured from the enemy).[4] It will be observed however that the *Śukranīti* does not even indirectly refer to the *śreṇībala*. For by the time

[1] Translated by B. Sarkar, Chapter IV, Section VII, vs. 9-15.

[2] *Ibid*, line 21, p. 217.

[3] *Ibid*, line 28.

[4] *Ibid*, p. 218, lines 29-30.

the treatise was composed the *vārtāśastropajīvinaḥ* and *rājaśabdopajīvinaḥ saṅghas*[1] and *śreṇis* had probably completely disappeared from the face of India. The *sādyaska* or the raw recruits who are contrasted with the *maula* by the *Śukranīti*, were probably recruited in times of emergency, but the author rightly warns us against the use of these troops 'even though they are in great numbers.'[2]

Besides the above classification, ancient Indian tradition recognises another broad division of the Indian army. This division is based on the different kind of animals or vehicles riding on which the various sections of the army advanced in battle array. The Vedic army appears to have consisted mainly of two sections, *viz.*, the Kṣatriya nobles, who fought riding on chariots drawn by horses (*rathin*) and the foot soldiers (*patti*), who no doubt formed the great bulk of the army and were recruited from the *Viś*.[3] But with the growth of large kingdoms and empires, the army also grew in size and complexity and thus a need was felt to divide the troops on the above basis.

Caturaṅgabala.

Indian tradition is almost unanimous in accepting a fourfold division of the army on this basis, *viz.*, the elephantry, cavalry, chariots and infantry. As early as the epic period this fourfold division had already become more or less widely recognised. The armies of the Kurus, Pāṇḍavas, Pañcālas and other contestants in the great battle of Kurukṣetra were arranged according to this plan and we frequently find such epithets as the following whenever there is any attempt to describe an army :

(*i*) *Saṅkulā ca tadā bhūmiścaturaṅgabalānvitā* [4]

[1] *Arthaśāstra, saṅghavṛttam*, p. 378.

[2] *Ibid*, p. 234, lines 354-55.

[3] In his *Ṛgvedic Culture*, Dr. Das has tried to show that cavalry and camel and elephant corps formed part of the Vedic army. See pp. 339-43. The facts adduced are no doubt interesting, but in the present state of our knowledge cannot be regarded as conclusive.

[4] Udyogaparva, Chapter V, 17.

(*ii*) *Mahatā caturaṅgena balenāgād-Yudhiṣṭhiram* [1]

(*iii*) *Caturvidhabalām Bhimāmakampāṁ pṛthivīmiva* [2]

The *Rāmāyaṇa* also repeatedly refers to this fourfold division :

(*i*) *Jāmadagnyo gato Rāmaḥ prayātu caturaṅginī* [3]

(*ii*) *Balena caturaṅgena svayametya niśācaram*

(*iii*) *Tadbhavāmścaturaṅgeṇa balena mahatā vṛtam* [5]

The Buddhist Jātaka stories are also full of such references. In the following words King Sañjaya describes the constitution of his army in the Vessantara Jātaka :

"My horses, chariots, elephants and soldiers go prepare,
And let the people come around, the chaplains all be there.
The sixty thousand warrior lords around and adorned so fair,
Drest up in blue or brown or white, with blood-red crests be there.
Like as the spirit-haunted hills where trees a-plenty grow,
Are bright and sweet with plants divine, so here the breezes blow.
Bring fourteen thousand elephants, with trappings all of gold,
With drivers holding lance and hook : as many horse be told.
Sindh horses, all of noble breed, and very swift to go,
Each ridden by a henchman bold, and holding sword and bow.
Let fourteen thousand chariots be yoked and well arranged,
Their wheels well wrought of iron bands, and all with gold inlaid
Let them prepare the banners there ; the shields and coats of mail,
And bows withal, those men of war that strike and do not fail.' [6]

[1] *Ibid*, Chapter 19, v. 1.

[2] *Ibid*, Chapter, 163, v. 2. In the *Śāntiparva* however which is very late, we have the following verse which refers to an eightfold division of the army :

Rathā nāgā hayāścaiva padātaścaiva Pāṇḍava,
viṣṭirnāvaścārāścaiva deśikā iti cāṣṭamam.—Chap. 59, v. 41.

[3] *Ādikāṇḍa*, *Sarga* 77, v. 3.

[4] *Araṇyakāṇḍa*, 38, v. 7.

[5] *Laṅkākāṇḍa*, 37, v. 24.

[6] Eng. Trans., Vol. VI, 298.

It will be observed that the army of King Sañjaya was a fourfold one. I give below some other instances from this source :

Name of the story.	Passage.
(*i*) Vāḷodakajātaka[1] ...	"Word came to the king (Brahmadatta of Benares) of a revolt on the frontier (*paccanta kupito*). He ordered five hundred chargers (*pañcasate sindhave*) to be got ready and an army complete in four parts (*caturaṅginiyā senāya*)."
(*ii*) Ḍadhivāhanajātaka[2]	Sakka gives a man a drum which when sounded "will encompass you with an army in fourfold array (*caturaṅginiyā senāya*)."
(*iii*) Dutiya-Palāyijātaka[3]	King of Gandhāra besieges the city of Benares with a complete army of four divisions (*caturaṅginiyā.*
(*iv*) Dārimukhajātaka[4] ...	On the death of the king the Purohita of Benares sends a festal car accompanied by an army of fourfold division (*caturaṅginiyā*) and by the music of hundreds of instruments.
(*v*) Āsanakajātaka[5] ...	The Benares king Brahmadatta starts for the girl

[1] Text, Vol. II, p. 96 ; Trans., II, p. 66.
[2] Vol. II., p. 102 ; Trans., II, pp. 70-71.
[3] Vol. II, p. 219 ; Trans., II, p. 153.
[4] Vol. III, pp. 238-39 ; Trans., III, p. 157.
[5] III, p. 249 ; Trans., III, p. 161.

Name of the story.	Passage.
	Āsanaka with a fourfold army (*caturaṅginiyā senāya*).
(*vi*) Dasarathajātaka [1]	... Bharata starts with the complete host of the four arms to bring back Rāma from the Himalayan forests whither he had retired.
(*vii*) Kusajātaka [2]	... Kusa fought against the enemies of the Madra king mounted on an elephant "that had been trained to stand impassive under attack"...escorted by a complete host of the four arms.
(*viii*) Sona-Nandajātaka [3]	... King Manoja of Benares starts to meet Sona and plead the cause of Nanda equipped with his fourfold host (*senāya caturaṅginī*).

When Alexander invaded India in the 4th century, the Indian kings still arranged their forces in the fourfold order. It is well-known that the *Paurava* monarch advanced to meet the Yavana hosts at the head of a *caturanginī* army. We know from Curtius Rufus that,

"In the van of his army he had posted 85 elephants of the greatest size and strength, and behind these 300 chariots and somewhat about 30,000 infantry" [4].....We are further told that the Macedonians found the opposite shore of the Hydaspes covered with infantry and cavalry.[5] Again when

[1] IV, p. 125; Trans., IV, p. 80.
[2] V, p. 316; Trans., V, 162.
[3] *Ibid*, p. 319, Trans., p. 168.
[4] McCrindle, *Ancient India; Its Invasion by Alexander the Great*, pp. 203-04.
[5] *Ibid*.

Alexander was resting his arms on the bank of the Beas he heard from Phegeus, an Indian prince, that the army of Agrammes guarded the approaches to his country with the help of 20,000 cavalry and 200,000 infantry besides 2,000 four-horsed chariots and what was most formidable of all a troop of elephants which he said ran up to the number of 3 000.[1]

Kauṭilya, whose *Arthaśāstra* is assigned to the Maurya period by many eminent authorities[2] refers to this fourfold division of the army. Thus he says in one place,

Etena vidhinā vyuhānojānyugmāṁśca kārayet,
vibhavo yāvadangānām caturṇāṁ sadṛso bhavet.[3]

(In this way, he would make odd or even arrays, keeping the strength of the four constituents of the army equal).[4]

Again while describing the duties of the *Senāpati*, he remarks :

Tadeva Senāpatissarvayuddhapraharaṇavidyāvinīto hasty-aśvarathacaryāsampuṣṭascaturangasya balasyānuṣṭhanādhiṣṭhānam vidyāt.[5]

There was probably no well organised navy in the time of Kauṭilya for military purposes. For though there was an officer in charge of ships, his duties as detailed in the chapter on *Nāvadhyakṣa* do not appear to have any military character. But the following passage appears to be significant.

Himsṛikā nirghātayet. Amitraviṣayātigāḥ paṇya-pattanacaritropaghātikāśca.[6]

"Pirate ships (*himsṛikā*), vessels which are bound for the country of an enemy, as well as those which have violated the customs and rules in force in port towns shall be destroyed."[7]

[1] See my article in *J. A. S. B.* (*New series*), Vol. XIX, 1923, p. 367.
[2] See my article in the *Indian Antiquary*, Vol. LIV, 1925, pp. 171-175 ; 201-205.
[3] Text, p. 375.
[4] Trans., p. 449.
[5] Text, p. 140 ; see also p. 345 for *caturaṅgabala* ; also p. 57, line 1.
[6] P. 126. [7] Trans., p. 157.

These duties were probably gradually increased till we come to the time of Megasthenes when, thanks to the initiative of the first Maurya and the needs of a great pan-Indian empire, we find a well organised naval department already in existence.[1] The Greek ambassador tells us that

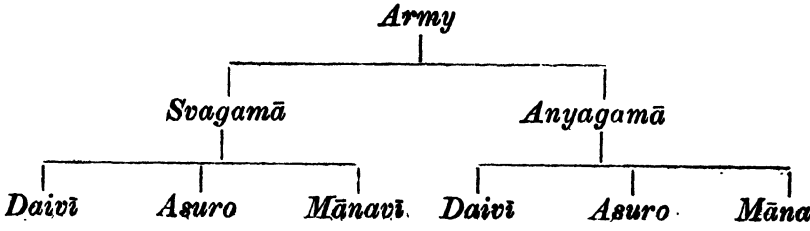
"Next to the city Magistrates, there is a third governing body, which directs military affairs. This also consists of six divisions, with five members to each. One division is appointed to co-operate with the admiral of the fleet, another with Superintendent of bullock trains which are used for transporting engines of war, food for soldiers, provender for cattle, and other military requisites. They supply servants who beat the drum, and others who carry the gongs, grooms also for the horses, and mechanics and their assistants. To the sound of the gong they send out foragers to bring in grass and by a system of rewards and punishments ensure the work being done with despatch and safety. The third division has charge of the foot soldiers, the fourth of the horses, fifth of the war chariots and the sixth of the elephants."[2] The whole army was thus divided into six sections, *viz.*, (*i*) the navy, (*ii*) transport and commissariat, (*iii*) the infantry, (*iv*) cavalry, (*v*) chariots and (*vi*) the elephants; and the department was administered by a board of thirty members divided into six smaller committees of five members each. Each of these six committees was in charge of one of the six divisions of the army. The fourfold army therefore had increased at this time into a sixfold one by the addition of the navy and the commissariat. A verse in the *Śāntiparva* of the *Mahābhārata*, which is most probably later than the Maurya period, seems to show that this sixfold division had expanded

[1] "Then again it is quite possible that the present treatise was written by him, before Megasthenes came to Pāṭaliputra. When he came, many innovations in administration was introduced by Chandragupta personally or in consultation with his ministers." *Indian Antiquary*, Vol. LIV, 1925, p. 203.

[2] McCrindle, *Ancient India as described by Megasthenes and Arrian*, p. 88.

at a later period into an eightfold one by the addition of the departments of military spies and *deśikas* (scouts?).[1] In the opinion of many authorities Manu refers to a somewhat similar sixfold division of the army. According to Medhātithi, Rāghavānanda, Kullūk abhaṭṭa and others the '*saḍavidhañca balam...*' of Manu consisted of "elephants, horses, chariots, infantry, the general and the workmen." The 'workmen'[2] in this list probably refers to the same section that was included by Megasthenes under 'commissariat.' But it is significant that Manu entirely omits the naval section of the Army. Probably this might have some connection with the growing dislike of the social legislators for sea voyages which is echoed in the *Saṁhitā* of Manu.[3]

Later writers on Indian Polity like Kāmandaka[4] and the authors of the *Agnipurāṇa*[5] and the *Śukranīti*[6] however revert back to the time-honoured fourfold division of the army. The method of classification in the *Śukranīti* is rather curious. It is as follows:



[1] Chapter 59, v. 41. For the verse see p. 32, footnote 1. The word *deśika* has been explained by Nīlakaṇṭha as *upadeṣṭāro-guravaḥ*,—probably teachers of military science. In the lexicons the word is also taken to mean 'a guide 'or a traveller. Mr. M. N. Dutt translates the word as "guides taken from the country which is the seat of war." I am inclined to accept the meaning of scouts, though I am not certain about the point.

[2] *S. B. E.*, Vol. XXV, pp. 245-46, footnote on verse 185, Book VII.

[3] *Ibid*, III, 151. In VII, 192, Manu refers to naval fight probably on internal waters and not on the sea. *Naukādhyakṣa* is found in Pāla Inscriptions. See *Gauḍalekhamālā*, p. 16. Some of the Cola sovereigns of the tenth century like Rājarāja the Great possessed powerful naval forces and converted the Bay of Bengal practically into a Cola lake.

[4] *Nītisāra*, Section XIX, v. 23 and 25.

[5] Chapter 228, v. 6. The author of the *Purāṇa* praises the infantry and says '*senā padātivahula śatrun jayati sarvadā.*'

[6] Chapter IV, Section VII.

But the explanation he supplies in verse 3 of the same section of the chapter [1] clears away the difficulties. He says, "*anyagamā* is that which proceeds in vehicles. The infantry is the *svagamā*; the other is of the three kinds, using chariots, horses or elephants." Yuan Chawang, the Chinese pilgrim who visited India in the 7th century A.D., refers to this fourfold division of the Army organisation in India. "The army," says he, "is composed of Foot, Horse, Chariot, and Elephant soldiers." [2] But it seems to me that an important change was gradually taking place in the Indian Army organisation about this time. In Bāṇa's *Harṣacarita* we meet with the following passage:

"On the next day Bhaṇḍi, approaching the king, said:—

'Let your majesty inspect the Mālwa king's army and royal equipage, won by the power of his majesty Rājyavardhana's arm.' The king consenting to this being done, he displayed the booty, such as elephants in thousands, great as moving boulders, with muddy cheeks whose temples were hairy with swarms of bees clamouring about the intoxicating scent of incessantly dripping ichor, elephants booming with deep roars like clouds alighted upon the earth, and, like concentrated autumn days, emitting the fragrance of full-blown *Saptachhada* groves: horses swift as antelopes and gay with lines of gold-bedight chowries: ornaments of divers kinds, raining floods of morning radiance and by their light covering the heavens with many a rainbow: wondrous pearl necklaces that had toyed with the scent of the bosoms of love-intoxicated Mālwa women, like stars and yet flooding the heavens with a torrent of unborrowed light: yak-tail chowries, like Harṣa's own glories, white as a mass of moonlight: a white umbrella with golden stock, like the lotus dwelling of Çrī: beauteous women, like Apsarases come down out of fondness for valour redolent of many a fight: regal paraphernalia such

[1] *Ibid.*

[2] Watters, *Yuan Chwang*, Vol. I, p. 171.

as lion thrones, couches, and settees: all the Mālwa king's adherents with their feet restrained by iron fetters: the whole of his treasure chests, heavy laden with wreaths of ornaments and provided with written records of their contents."[1]

It will be observed from the above description of the captured army of the Mālwa king that though 'elephants in thousands great as moving boulders' and 'horses swift as antelopes' are mentioned, we are struck by the absence of any reference to chariots of wondrous shape and magnificence as we find repeatedly mentioned in the *Mahābhārata* and the *Rāmāyaṇa*. The description which Yuan Chwang supplies us of the army of Pulakeśi also does not contain any reference to the chariots, while 'war elephants.....made drunk before an engagement' are prominently mentioned.[2] The elephants were, as is clear from the above passage from the *Harṣacarita*, the most important arm in the 7th century A.D. While in the Epic period all the important heroes and kings fight riding on chariots,[3] we already find in the 4th century B.C. Poros fighting from the back of an elephant. That chariots were going out of use is also evident from the fact that Megasthenes while giving a list of Indian races and the description of their armies very often omits the chariots. His remark that: "In fact no one invested with kingly power ever keeps on foot a military force without a very great number of elephants and foot and cavalry" is significant. The omission of the c ariots in this quotation is to be noticed. The chariots therefore must have ceased

[1] *Harṣacarita*, Trans. by Cowell and Thomas, pp. 224-25.

[2] Watters, *Yuan Chwang*, Vol. II, p. 239; chariots are however mentioned by the Chinese Pilgrim when he gives an idea of the 'Army organisation in India.' It is possible that the chariot still lingered in the armies of some kingdoms in India, like the bow and arrow long after the discovery of the gun and the gun-powder.

[3] That in the Epic period chariot-fighters formed the most important group is proved by v. 22 ff, Ch. 153, *Udyogaparva*, *Mahābhārata*, where 10 elephants are mentioned as supporting a single chariot-fighter, 10 horses for each elephant and 10 foot soldiers for each horse.

to form an important branch of the Indian armies already in the Maurya period and in many localities must have ceased altogether to be regarded as a fighting unit.[1] But it is interesting to observe that the historians of Alexander's invasion nearly always mention chariots as forming an important branch of the Indian army. This gradual decrease in the importance of chariots is further demonstrated by the following verse of Kāmandaka:

"Riding on a huge elephant duly equipped and with followers and soldiers accoutred in mail, and with the ranks of army teeming with brave heroes, a monarch should march forward, having at first held consultation with the ambassador of the feudatory kings."[2]

In the epic period the kings sometimes fought from the back of the elephant, but that was an exception.[3] The situation seems to have been reversed by the 7th century A.D. for by this time the elephant had displaced the chariot from this premier position. Even as late as the 11th century the elephants maintained a position of importance in Indian armies and we find Mahmud of Gazni using a troop of 500 elephants to defeat a formidable force of Tartars under I'lak Khan. It is said that "Mahmud's own elephant caught up the standard-bearer of I'lak Khan and tossed him aloft with his trunk, in sight of the Tartar king and his terrified fellow soldiers."[4] But this position was also gradually changed till we come to the mediaevel period of Indian history. Dr. Horn writing on the army of the Indian Moghuls, remarks that the "Moghul army consisted of cavalry, infantry and artillery. But the second and the third branches held a very subordinate

[1] McCrindle, *Ancient India as described by Megasthenes and Arrian*, pp. 135-156. In this connection the statement of Kauṭilya, '*Daṇḍasampatsārabalaṁ puṁsāṁ hastyaśvayoviśeṣaḥ*' is significant.

[2] *Nītisāra*, Trans. by Manmatha Nath Dutt, Section XV, v. 51.

[3] *Mahābhārata*, Droṇaparva, Ch. 28, Bhagadatta, the king of Prāgjyotiṣa is found fighting from *gajaskandha*.

[4] Elphinstone, *History of India*, p. 327.

position towards the first. The army was essentially an army of horsemen.'[1] According to some authorities the prominence of horsemen in Indian armies during the later period of her history 'may not improbably be ascribed in some degree to the infusion of Scythian tribes and manners from the West about the commencement of our era'[2] The prominence of horsemen in Moghul armies was certainly due to this cause.[3]

In concluding this section I beg to draw the attention of scholars to the following passage of the *Kauṭilīya* which was certainly a matter, that deserved the serious attention of ancient Indian recruiting officers. He says:

"One should recruit one's army, reflecting that 'such is the army of my enemy and this is my army to oppose it.'"[4]

He explains the necessity of this reflection in the next few sentences. He points out that

'The army which possesses elephants, machines, (*śakaṭagarbha*?), *kunta*, *prāsa*, *kharvaṭaka*, bamboo sticks and iron sticks is the army to oppose an army of elephants.'

'The same possessed of stones, clubs, armour, hooks, and spears in plenty is the army to oppose an army of chariots.'

'The same is the army to oppose cavalry.'

'Men clad in armour, can oppose elephants.'

'Horses can oppose men clad in armour.'

'Men clad in armour, chariots, men possessing defensive weapons, and infantry can oppose an army consisting of all the four constituents.'

This of course brings us to the relative position and

[1] Irvine, *The Army of the Indian Moghuls*, p. 57. That ancient Indian armies were composed of four branches, Elephant, Horse, Chariot and Infantry, is also proved by the sculptures at Sanchi—see *Sanchi and its Remains* by General F. C. Maisey, Plate XX.

[2] Works by Wilson (1864), Vol. IV, *Essays, Sanskrit Literature*, Vol. II, pp. 292 ff.

[3] 'The Moghuls from beyond the Oxus were accustomed to fight on horseback only; the foot soldier they despised.' Irvine, *The Army of the Indian Moghuls*, p. 57.

[4] Text, p. 345.

proportion of the constituents of the Indian armies but we reserve the discussion of that question for a separate chapter.[1]

Let us now turn to a consideration of the seasons and the condition of the land which certainly had a considerable effect in increasing or diminishing the usefulness of the various constituents of the army. For though the autumn and the winter months were generally considered by writers on Indian Polity as the best time for military operations,[2] yet as practical statesmen they recognised that there cannot be any hard and fast rule regarding this matter. Kauṭilya for instance remarks that one should march whenever one's resources are sufficient.[3] The *Arthaśāstra* contains a more or less academic discussion on the relative importance of *deśa* and *kāla*.[4] 'My teacher says that of strength (*śakti*), *deśa*, and *kāla*, *śakti* is the best,' for a man who is possessed of strength (*śakti*) can overcome the difficulties due either to the unevenness of the ground or to the cold, hot or rainy periods of time. Some say that *deśa* is the best for the reason that a dog seated in a convenient place can drag a crocodile and that a crocodile in low ground can drag a dog. Others say that *kāla* is the best for the reason that during the daytime the crow kills the owl and at night the owl the crow.'[5]

Effect of the seasons and *deśa* on the army.

Kauṭilya ends this discussion with the wise remark that of strength, *deśa* and *kāla* each is helpful to the other: *Parasparasādhakā hi śaktideśakālāḥ*.[6] He then tries to give us an idea of the intimate relationship of the varying seasons with the condition and

[1] *Ibid.*, Kauṭilya on p. 375 made a general remark that the strength of the four constituents of the army should be equal. But it seems that this rule was not observed and the proposition often varied. See also the verse at the end of page 371.

[2] See *Vedic Index*, I, 538-39; also Kāmandakīya *Nītisāra*, Trans. by M. N. Dutt, IV. 65-67, and footnote on *Nīrañjana* ceremony.

[3] P. 342; *Mahābhārata*, *Śānti*, ch. 100, V. 10-12.

[4] For a proper definition of these two terms see p. 340.

[5] Text, pp. 340-41.

[6] *Ibid.*

equipment of the enemy. He says: that one should 'march during the month of *Mārgaśīrṣa* (December) against his enemy whose collection of foodstuffs is old and insipid and who has not only not gathered fresh foodstuffs, but also not repaired his fortifications in order to destroy the enemy's rainy and autumnal crops. He should march during the month of *Caitra* (March), if he means to destroy the enemy's autumnal and vernal crops. He should march during the month of *Jyeṣṭha* (May-June) against one whose storage of fodder, firewood and water has diminished and who has not repaired his fortifications, if he means to destroy the enemy's vernal and rainy season crops. Or he may march during the dewy season against a country which is of hot climate and in which fodder and water are obtained in little quantities. Or he may march during the summer against a country in which the sun is enshrouded by mist and which is full of deep valleys and thickets of trees and grass, or he may march during the rains against a country which is suitable for the manoeuvre of his own army and which is of the reverse nature for his enemy's army. He has to undertake a long march between the months of *Mārgaśīrṣa* (December) and *Taiṣa* (January), a march of mean length between *Caitra* (March) and *Vaiśākha* (April) and a short march between *Jyeṣṭha* (May) and *Āsāḍha* (June).'[1]

Having made these general remarks he next discusses the effect of *deśa* and *kāla* on each of the constituents of the army. He says:

'When the weather is free from heat, one should march with an army mostly composed of elephants. Elephants with profuse sweat in hot weather are attacked by leprosy; and when they have no water for bathing and drinking, they lose their quickness and become obstinate. Hence against a country containing plenty of water during the rainy season,

[1] Text, p. 341, Trans., p. 413.

one should march with an army mostly composed of elephants. Against a country of the reverse description which has little rain and muddy water one should march with an army mostly composed of asses, camels and horses. Against a desertlike (*maruprāyam*) land, one should march during the rainy season with all the four constituents of the army (*caturangabala*).'[1]

In another place he supplies us with the following additional details:

'For men who are trained to fight in desert tracts, forests, valleys, or plains, and for those who are trained to fight from ditches or heights, during the day or night, and for elephants which are bred in countries with rivers, mountains, marshy lands or lakes, as well as for horses, such battlefields as they would find suitable (are to be secured).'

Ratha-bhūmi.

'That which is even, splendidly firm, free from mounds and pits made by wheels and footprints of beasts, not offering obstructions to the axle, free from trees, plants, creepers and trunks of trees, not wet and free from pits, anthills, sand and thorns is the ground for chariots.'

'For elephants, horses and men, even or uneven grounds are good either for war or for camp.'

Aśvabhūmi.

'That which contains small stones, trees and pits that can be jumped over and which is almost free from thorns is the ground for horses.'

Padātibhūmi.

'That which contains big stones, dry or green trees and anthills is the ground for infantry.'

Hastibhūmi.

'That which is uneven with assailable hills and valleys, which has trees that can be pulled down and plants that can be torn, and which is full of muddy soil free from thorns is the ground for elephants.'

[1] P. 342.

'That which is free from thorns, not very uneven, but very expansive, is an excellent ground for the infantry (*padātināmatiśayaḥ*).'

'That which is doubly expansive, free from mud, water and roots of trees and which is devoid of piercing gravel is an excellent ground for horses (*vājināmatisayaḥ*).'

'That which possesses dust, muddy soil, water, grass and weeds, and which is free from thorns (*śvadaṃṣṭrahīnā*) and obstructions from the branches of big trees is an excellent ground for elephants (*hastināmatisayaḥ*).'

'That which contains lakes, which is free from mounds and wet lands, and which affords space for turning is an excellent ground for chariots (*rathānāmatiśayaḥ*).[1]

The *Mahābhārata* contains the following *ślokas* on the point:

Akarddamām anudakām amaryyadām aloṣṭākām,
aśvabhūmiṁ praśaṁsanti ye yuddhakuśalā janāḥ.
Apaṅkâgarttarahitā rathabhūmiḥ praśasyate,
nīcadrumā mahākakṣā sodakā hastiyodhinām.
Vahudurgā mahākakṣā veṇuvetrasamākulā,
padātīnāṁ kṣamābhūmiḥ parvato'pavanāni ca.
Padātivahulā senā dṛḍhā bhavati Bhārata,
rathāśvavahulā senā sudineṣu praśasyate.
Padātināgavahulā prāvṛṭkāle praśasyate,
guṇānetān prasaṁkhyāya deśakālau prayojayet.
Evam sañcintya yo yāti tithinakṣatra pūjitaḥ,
vijayam labhyate nityam senām samyak prayojanam.[2]

The *Agnipurāṇa* also contains the following lines on the same subject:

Nimitte śakune dhanye jāte śatrupuram vrajet.
padātināgavahulāṁ senāṁ prāvṛṣi yojayet.
Hemante śiśire caiva rathavājisamākulām,
caturaṅgavalopetāṁ vasante vā śaranmukhe.[3]

[1] Text, pp. 369-70; Trans., pp. 445-45.

[2] *Śāntiparva*, Chapter 100, V. 21-26.

[3] Chapter 228, V. 5-6. See also Manu VII, 192 and *Kāmandakīya Nītisāra*, XIX, 9-4 V.

Before concluding this section I would like to draw attention of scholars to the following passage in the *Arthaśāstra* which gives us an idea of the kind of work or operations for which each of the four constituents of the army was considered to be specially fitted.

Aśvakarmāṇi.

'Concentration on occupied positions, in camps and forests; holding the ropes (of beasts and other things) while crossing the rivers or when the wind is blowing hard: destruction or protection of the commissariat and of troops arriving afresh; supervision of the sides of the army; first attack; dispersion (of the enemy's army); trampling it down; defence; seizing; letting it out; causing the army to take a different direction; carrying the treasury and the princes; falling against the rear of the enemy chasing the timid; pursuit; and concentration—these constitute the work of the cavalry.'

Hastikarmāṇi.

'Marching in front; preparing the roads, camping grounds and path for bringing water; protecting the sides; firm standing, fording and entering into water while crossing pools of water and ascending from them; forced entrance into impregnable places; setting or quenching the fire; the subjugation of one of the four constituents of the army; gathering the dispersed army; breaking a compact army; protection against dangers; trampling down the enemy's army; frightening and driving it; magnificence; seizing; abandoning; destruction of walls, gates and towers; and carrying the treasury—these constitute the work of the elephantry.'

Rathakarmāṇi.

'Protection of the army; repelling the attack made by all the four constituents of the enemy's army; seizing and abandoning (positions) during the time of battle; gathering a dispersed army; breaking the compact array of the enemy's army; frightening it; magnificence; and fearful noise—these constitute the work of the chariots.'

Padātikarmāṇi.

'Always carrying the weapons to all places and fighting constitute the work of the infantry.'[1]

The above account brings out a significant fact, *viz.*, the inferiority of the infantry in comparison with the other arms. Writing about the position of the infantry in the Moghul period Irvine writes that 'until the middle of the eighteenth century, when the French and English had demonstrated the vast superiority of disciplined infantry, the Indian foot soldier was little more than a night watchman, and guardian over baggage, either in camp or on the line of march.[2] Orme also makes a similar observation on the infantry of the same period. 'The infantry,' says he, 'consisted in a multitude of people assembled together without regard to rank or file: some with swords and target, who could never stand the shock of a body of horse; some bearing matchlocks, which in the best of order can produce but a very uncertain fire: some armed with lances, too long or too weak to be of any service, even if ranged with the utmost regularity of discipline. Little reliance was placed on them. To keep night watches and to plunder defenceless people was their greatest service, except their being a perquisite to their commanders, who received a fixed sum for every man, and hired every man at a different and less price. In short, the infantry were more a rabble of half-armed men than anything else, chiefly levies brought into the field by petty zemindars, or men belonging to the jungle tribes.'[3]

The very fact that to the infantry Kauṭilya assigns the work of 'carrying weapons to all places,' and only grudgingly as it were, adds, 'and fighting' shows that the infantry of

[1] Text, pp. 370-71; Trans., pp. 445-46. For another account of the military operations for which each of the constituents was specially fitted see p 374; Trans., p. 449; and also *Kāmandakīya Nītisāra*, XIX, V. 1-8.

[2] Irvine, *The Army of the Indian Moghuls*, p. 57.

[3] *Ibid*, pp. 161-62.

his period could not have much differed in efficiency to the wretched infantry of the Moghul period. But the infantry was probably not in this condition at all periods of our history in ancient times for already we are told by a verse in the *Śāntiparva* of the *Mahābhārata* that *Padātivahulā senā dṛḍhā bhavati Bhārata* (Ch. 100, V. 23), and the author of the *Agnipurāṇa* significantly remarks[1] :—

'*Senā padātivahulā śatrum jayati sarvadā.*

('The army in which infantry predominates always defeats its enemy').

Units of the army.

Besides the above classifications ancient Indian armies were further subdivided into various units based on their numerical strength. Like the modern armies which are divided into *Regiments, Battalions, Companies*, etc., the Indian army in the Hindu period were divided into *Patti, Senāmukha, Gulma, Gaṇa, Vāhinī, Pṛtanā, Camū, Anīkinī* and *Akṣauhiṇī*. The following table will explain the nature of these divisions.

No.	Name of the unit.				Chariot.	Elephant.	Horse.	Foot.
1	*Patti*				1	1	3	5
3	,,	form one		*Senāmukha*	3	3	9	15
3	*Senāmukhas*	,,	,,	*Gulma*	9	9	27	45
3	*Gulmas*	,,	,,	*Gaṇa*	27	27	81	135
3	*Gaṇas*	,,	,,	*Vāhiṇī*	81	81	243	405
3	*Vāhiṇīs*	,,	,,	*Pṛtanā*	243	243	729	1,215
3	*Pṛtanās*	,,	,,	*Camū*	729	729	2,187	3,645
3	*Camūs*	,,	,,	*Anīkinī*	2,187	2,187	6,561	10,935
10	*Anīkinīs*	,,	,,	*Akṣauhiṇī*	21,870	21,870	65,610	109,350

The above arrangement of the four arms is generally accepted by Sanskrit lexicons.[2] But a different arrangement is given in chapter 153 of the *Udyogaparva* of the *Mahābhārata*.[3] We are told that Duryodhana made the following arrangement of his troops:

[1] Chapter 228, V. 7.

[2] For instance, consult *Amarakoṣa*, edited by Pandit Chandramohan Tarkaratna *Kṣatriyavarga*, Verses 80-81; Apte's *The Practical Sanskrit-English Dictionary*, pp. 66 1137, 464, 447, 964, 718, 485, 66, 8.

[3] *Vangavāsi Ed.* (Calcutta).

'Again, a large body of troops was kept as reserve for rallying the ranks that would be broken. And this reserve consisted of cars unto each of which were attached fifty elephants; and unto each elephant were attached a hundred horses, and unto each horse were attached seven foot-soldiers. Five hundred cars, as many elephants (fifteen hundred horses, and two thousand five hundred foot-soldiers) constitute a *Senā*. Ten *Senās* constitute a *Pṛtanā*; and Ten *Pṛtanās* a *Vāhini*. In common parlance, however, the words *Senā*, *Vāhini*, *Pṛtanā*, *Dhwajini*, *Chamū*, *Akshauhini* and *Varuthinī* are used in the same sense.'

'It was thus that the intelligent Kaurava arrayed his force. Between the two sides, the total number was eighteen *Akshauhinis*. Of this, the Pandava force consisted of seven *Akshauhinis*, while the Kaurava force consisted of 10 *Akshauhinis* and one more. Five times fifty men constitute a *Patti*. Three *Pattis* make a *Senāmukha* or *Gulma*. Three *Gulmas* make a *Gaṇa*. In Duryodhana's army there were thousands and hundreds of such *Gaṇas* consisting of warriors capable of smiting (the foe) and longing for battle.'[1]

That the basis of classification in both the above paragraphs are different from what we have at first stated will be at once clear from the following table:—

According to the 1st Table:

	Chariot.	Elephant.	Horse.	Foot.
(*a*) One *Pṛtanā* ...	243	243	729	1,215
One *Patti* ...	1	1	3	5

According to the paragraph quoted from the *Mahābhārata*:

(*b*) One *Pṛtanā* ...	5,000	5,000	15,000	25,000
One *Patti* ...	Five times fifty men = 250 men:			

(*narāṇām pañcapañcāśadeṣa pattirvidhīyate*)

[1] P. C. Ray's Trans., *Udyogaparva*, p. 452.

Again while according to the former arrangement the *Pṛtanā* is the bigger unit and the *Vāhinī* is the smaller, according to the second arrangement the position is reversed. The basis on which *Patti*, *Gulma*, etc., has been formed in the second paragraph is also, it will be observed, fundamentally different from the accepted principles governing such classifications elsewhere.

Officers.

In the Vedic period the kings of the comparatively smaller tribal states led the warring hosts in person.[1] But with the growth of the states into large kingdoms and empires and the consequent growth of the duties of the kings it was not possible for one person to bear the 'Atlantean load.' Hence arose the necessity of appointing another commander of the army who next to the king became the chief officer, so far as the military department was concerned. In the Vedic period the *Senānī* was already an important officer of the state. Along with ten other big civil and military officials, who were known as the *Ratnins*, he was the recipient of sacrificial honours in the *Rājasūya yajña*. The king however still continued to take an active interest in military affairs and like the Moghul emperors often directed the movements of his field-marshals.

Kings in war.

Senāpati.

In the Post-Vedic period, the commander-in-chief of the army was known as the *Senāpati*. This officer is repeatedly mentioned in the Epics. In the *Udyogaparva* of the *Mahābhārata* we find the *Pāṇḍava* chiefs assembled in their war council to select their *Senāpati*. Yudhiṣṭhira introduced the discussion in the following words :

'Here are seven *Akshauhinis* of troops assembled for our victory. Hear the names of those seven celebrated warriors (*senāpranetāra*) that would lead those seven *Akshauhinis !* They are Drupada, and Virāta, and Dhrishtadyumna

[1] *Vedic Index*, see the article under *Rājan* (Kings in war).

and Śikhandi, and Sātyaki, and Chekitāna, and Bhīmasena of great energy. These heroes will be the leaders of my troops. All of them are conversant with the Vedas. Endued with great bravery, all of them have practised excellent vows. Possessed of modesty, all of them are conversant with policy, and accomplished in war. Well-skilled in arrows and weapons all of them are competent in the use of every kind of weapon. Tell us now, O Sahadeva, O son of Kuru's race, who that warrior is, conversant with all kinds of battle array, that may become the leader of these seven (*saptānāmapi yo netā senānāṁ pravibhāgavit*) and may also withstand in battle Bhishma who is like unto a fire having arrows for its flames! Give us thy own opinion, O tiger among men, as to who is fit to be our *Senāpati*.' [1]

After a thorough discussion, Dhṛṣṭadyumna, the Pāñcāla prince, was selected as the *Senāpati*.[2] Similarly Bhīṣma was selected as the *Senāpati* of the Kaurava hosts under Duryodhana.[3] Bhīṣma while gracefully accepting the responsibility, indirectly gives us an idea of the qualifications of a *Senāpati* which were considered to be essential. He says :

Qualifications of a *Senāpati*

'Worshipping the leader of the celestial forces, *viz.*, Kumāra, armed with the lance, I shall without doubt, be the commander of thy army (*Senāpati*) to-day! I am well versed in all military affairs, as also in various kinds of array. I know also how to make regular soldiers (*bhṛtān*) and volunteers (? *abhṛtān*) [4] act their parts. In the matter of marching troops and arraying them, in encounters and withdrawing, I am as well versed, O great king, as Bṛhaspati is. I am acquainted with all the methods of military array obtaining

[1] Ch. 151, V. 3-8. Trans., pp. 438-39 (with some alterations I have quoted P. C. Ray's translation).

[2] Ch. 156, V. 11-13 ; the seven generals are called *senāpranetṛn*, while Dhṛṣṭadyumna is *sarvasenāpati*.

[3] *Ibid*, Ch. 164. Trans., pp. 485-86.

[4] *Abhṛtān* might mean the army of the allies as suggested by Nīlakaṇṭha.

amongst the celestials, *Gandharvas* and human beings. With these I will confound the Pāṇḍavas. Let thy (heart's) fever be dispelled. I will fight (the foe), duly protecting thy army and according to the rules of military science! O King let thy heart's fever be dispelled.'[1]

The above quotation will, I hope, give us some idea about the qualifications of the *Senāpatis* in the *Mahābhārata* period.[2] In the *Rāmāyaṇa* Prahasta served as the *Senāpati* of the *Rākṣasa* forces.[3] In the *Arthaśāstra*, Kauṭilya also provides for the appointment of a *Senāpati*. In his opinion the *Senāpati* should have the following qualifications:

Tadeva senāpatissarvayuddhapraharaṇavidyāvinīto hastyaśvarathacaryāsampuṣṭascaturaṅgasya balasyānuṣṭhānādhiṣṭhānaṁ vidyāt. Svabhumiṁ yuddhakālaṁ pratyanīkamabhinnabhedanaṁ bhinnasandhānam saṁhatabhedanam bhinnavadham durgavadham yātrākālam ca paśyet.

Turyadhvajapatākābhirvyuhasaṁjñāḥ prakalpayet,
sthāne yāne praharaṇe sainyānām vinaye rata.[4]

(With an eye to the position which the fourfold army trained in the skilful handling of all kinds of weapons and in leading weapons and in leading elephants, horses, and chariots, have occupied, and to the emergent call for which they ought to be ready, the *Senāpati* shall be so capable as to order either advance or retreat.

[1] *Ibid*, V. 7 ff. The translation is accepted with certain changes which I think are necessary.

[2] For the importance of the *Senāpati* and his qualifications, see also *Mahābhārata*, *Droṇa*, Ch. V, Verses 4-10 and the following verses.

[3] *Laṅkākāṇḍa*, Ch. 12, V. 1-2. Prahasta is also called *Vāhinīpati*. Perhaps the terms were at this time loosely used, or Prahasta being raised to the dignity of a *Senāpati* from that of a *Vāhinīpati* was still sometimes called by his old official title.

[4] Text., p. 140. On page 377 Kauṭilya refers to the *Nāyaka* as the head of ten *Senāpatis*. These *Senāpatis* were sectional leaders and must be differentiated from the real commender-in-chief who was also called *Senāpati*. The *Nāyaka* was certainly an inferior officer to the *Senāpati* or the Commender-in-chief. This is clear from p. 247. The *Senāpati* used to get a salary amounting to 48,000 *paṇas* while the *Nāyaka* used to get only 12,000.

'He shall also know what kind of ground is more advantageous to his own army, what time is more favourable, what the strength of the enemy is, how to sow dissension in an enemy's army of united mind, how to collect his own scattered forces, how to scatter the compact body of an enemy's army, how to assail a fortress, and when to make a general advance.'

'Being ever mindful of the discipline which his army has to maintain not merely in camping and marching, but in the thick of battle, he shall designate the *vyuhas* by the names of trumpets, boards, banners or flags.' [1])

In this connection we should remember that Puṣyamitra Suṅga was the *Senāpati* of the last Maurya ruler Bṛhadratha. In an inscription recently discovered at Ayodhyā, the Suṅga leader is called *Senāpati*, which epithet is also applied to him by the *Harṣacarita* of Bāṇa. In the *Purāṇas* however, he is called *Senānī*.

The *Senāpati* is also mentioned by the *Manusaṁhitā* [2] and the *Nītisāra* of Kāmandaka. In the opinion of Kāmandaka the *Senāpati* should possess the following qualifications:

"One of high extraction, belonging to the king's own country, conversant with the rules of counsel and acting in conformity with them, a careful student of the science of *Daṇḍanīti* and its administration,

"one possessed of the qualities of energy, heroism, forgiveness, patience, amiableness and richness, one endowed with power and manliness and who is depended upon by his followers for their support,

"one who has got numerous friends and whose relations and cognates are many, whose countenance reflects generosity, and who is large-hearted and a thoroughly practical man mixing freely with the people,

[1] Trans. (with some changes), p. 176.

[2] VII, V. 192.

"who never cultivates other's ill-will or enmity without any reason, whose number of foes is very limited and who is of pure character, and is a profound scholar of the *śāstras*, and acts according to their precepts.

"one who is healthy, stout, brave, forbearing and acquainted with the opportuneness of season and is possessed of a noble appearance, and is full of reliance on his own power.

"one who knows the divisions of the field of battle and whose power remains unperceived till the time of action like that of the lion, and who is not procrastinating and is watchful, humble and self-controlled.

"who knows the marks (good or bad) of horses, elephants, chariots, and weapons and is fully acquainted with the actions and movements of the spies and scouts, and is grateful and conversant with all alternatives (of acts) ;

"one who observes all pious ceremonies and is skilful and followed by skilful dependants, who is expert in all modes of warfare and is competent to manage the army ;

"one who having been naturally gifted with the power of reading others heart, can perceive what the men, horses and elephants want, who also knows their designation and can supply them their food.

"one who knows all countries, languages and human characters, and can decipher all writings and is possessed of a retentive memory; one who is thoroughly competent to lead nocturnal attacks and who can ascertain by his keen intelligence what should be done,

"one who knows the times of sunset and sunrise, and the position of the stars and planets and their consequent influences, and who is fully acquainted with the routes, the directions, and the countries (through which the army is to pass),

"one who is neither frightened nor fatigued by the pangs of hunger and thirst and the inclemencies of the weather, hot,

cold, and rainy; who can bear up against alarms and weariness and who gives assurances of safety to the good,

" one who can create breaches in the army of the foe, and who can undertake difficult acts, and can detect and remove the cause of alarm of his own troops,

" one who can protect the camp, and is capable of bringing into light any (underhand) act of the troops, one who fully knows the disguises and the pretences put forward by the spies and messengers, and who reaps success by his great exertion,

"one who always accomplishes successfully acts undertaken by him, and enjoys their fruition and who is disregardful of near or remote consequences, but is only anxious about the material prosperity of the kingdom." [1]

Kāmandaka advises the king to appoint as his *Senāpati* a man who possesses all these qualities. The list of qualifications is interesting, but I fear he is here only laying down an ideal standard; for otherwise it would have been difficult if not impossible to discover a human being who was a repository of all the above virtues. At the same time we must admit that this high and exacting standard shows a proper appreciation of the responsibilities of the *Senāpati* (commander-in-chief).

The *Senāpati* is also mentioned in the inscriptions of the Gupta period.[2] In the Maliya copperplate inscription of the Mahārāja Dharasena II (A.D. 571-72), Bhatārkka the founder of the Valabhi line of kings and his son Dharasena I are designated '*Paramamāheśvaraḥ Śrî-Senāpati.*' The Chammak copperplate inscription of the Vākāṭaka Mahārāja Pravarasen II was written by *Senāpati* Chitravarman, while the Siwani copperplate of the same prince was written when Bappadeva was acting as the *Senāpati.* But it appears from

[1] Ed. Rajendralal Mitra, Section XVIII, V. 26-42. Trans., M. N. Dutt Sastri.

[2] Fleet, *Corpus Inscriptionum Indicarum*, vol. III, *Gupta Inscriptions*, pp. 167, 168, 243 and 249.

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a study of the inscriptions of this period that the *Senāpati* was not the supreme military officer of this period. He appears to have been reduced to the rank of a mere 'general' while other epithets were used to indicate higher officials. The next grade above this officer was the *Mahāsenāpati* who is mentioned in the Bijayagaḍh Stone Inscription of the Yaudheyas.[1] *Senāpati* is also mentioned in the Pāla Inscriptions.[2]

Caste of the *Senāpati*.

From the following verses of the *Śukranīti* it appears that caste was a factor that was of some importance in the selection of the *Senāpati*. Śukra says :

Śulkagrāhī tu Vaisyo hi Pratihāraśca Pādajaḥ,
senādhipaḥ Ksatriyastu Brāhmanastadabhāvataḥ.
Na Vaiśya na ca vai Śūdra kātarasya kadācana,
Senāpatiḥ śūra eva yojya sarvāsu jātiṣu.[3]

Thus it appears from this verse that though the Vaiśyas and the Śūdras were usually debarred from holding this high post, yet their caste was not an insurmountable obstacle. In special cases, when they showed exceptional bravery, they were appointed to the office of the *Senāpati*.

Sacivas of the *Senāpati*.

The *Senāpati* appears te have been assisted by a council of advisers. The *Laṅkākāṇḍa* of the *Rāmāyaṇa* refers to the four *Sacivas* of *Senāpati* Prahasta.[4] The names of these four *Sacivas* were Narāntaka, Kumbhahanu, Mahānānda and Samunyata. The *Rākṣasa Senāpati* always advanced in battle-array surrounded by these lieutenants. On the battlefield they probably served as aides-de-camp to the commander-in-chief.

[1] *Ibid*, p. 252.
[2] *Gauḍalekhamālā*, p. 16.
[3] Chapter II, V. 423-30.
[4] *Sarga*, 57, V. 30 ; *Sarga*, 58, V. 19.

Other Officers (*Balādhyakṣas*).

Besides the *Senāpati* there were other officers of the army. From the quotation cited above from the *Udyogaparva* of the *Mahābhārata*,[1] it is clear, that when the combined army exceeded one *Akṣauhiṇī* in numerical strength, special officers were appointed as commanders of each of these *Akṣauhiṇīs* under the *Senāpati*. There was certainly also officers commanding over the smaller units such as the *Anīkinī*, *Camū*, *Pṛtanā*, *Vāhinī*, *Gana*, *Gulma*, *Senāmukha* and *Patti*. The *Rāmāyaṇa* refers to the *Vāhinīpatis*[2] while the *Arthaśāstra* of Kauṭilya mentions the *Pattimukhyas*.[3] Kauṭilya also refers to the *Daśavargādhipatayaḥ* or the leaders of every group of ten (men ?) who must be identified with the *Daśādhipatayaḥ* of the *Mahābhārata*.[4] Besides these officers Kauṭilya provides for the appointment of special *Adhyakṣas* to be placed in charge of each of the four main branches of the army.[5] There was also the *Āyudhāgārādhyakṣa* or the officer in charge of the manufacture and storing of all sorts of weapons. The *Nāvadhyakṣa*, we have already seen, had very little work to do so far as the military operations were concerned. I need not repeat here in detail the fact that probably during the later part of the reign of the first Maurya, when Megasthenes visited India, the extensive military operations of that monarch had necessitated the creation of a board of thirty members consisting of six *pañcāyets* to supervise and administer the military department. A beginning of this board administration is probably to be found in the following lines of the *Kauṭiliya*.[6]

[1] Ch. 151, V. 3-8, etc.

[2] *Laṅkākāṇḍa*, Ch. 57, V. 29.

[3] Text, p. 368. In his translation Dr. Shamasastry takes the word to mean leader of infantry. See p. 443.

[4] *Ibid*, *Śānti*, Chap. 100, V. 30. The *Mahābhārata* in the same chapter of the *Śāntiparva*, refers to the *Śatādhipatayaḥ* and *Sahaśrādhipatayaḥ*, *i.e*, leaders of hundred and thousand.

[5] Pp. 132 ff. ; 135 ff. ; 139 ff.

[6] Text, p. 57 ; Raychaudhuri, *Political History of India*, p. 150.

Hastyaśvarathapādātaamanekamukhyamavasthāpayet.
Anekamukhyaṁ hi parasparabhayāt paropajāpaṁ nepaitīti.

('Elephants, cavalry, chariots, and infantry shall each be officered with many chiefs in as much as chiefs, when many, are under the fear of betrayal from each other and scarcely liable to the insinuations and intrigues of an enemy')[1].

The above passage explains the reasons that led to the appointment of a number of officers for the administration of the four main sections of the army. Candragupta probably developed this system into full-fledged boards.

Another important officer, probably next to the *Senāpati*, was the *Kumāra*. This is clear from the following passage :

Senāpatirarthamānābhyāmabhisaṁskṛtamanīkamābhāṣet— "*śatasāhasro Rājavadhaḥ, pañcaśatsāhasrāḥ Senāpatikumāravadha, daśasāhasraḥ pravīramukhyavadhaḥ, pañcasāhasro hastirathavadhaḥ*,[2] . . ."

(After having pleased the army with rewards and honours, the *Senāpati* should address it and say :

"A hundred thousand (*paṇas*) for slaying the (enemy) king ; fifty thousand for slaying the (enemy) *Senāpati* and the *Kumāra*, ten thousand for slaying the chief of the brave ; five thousand for destroying an elephant or a chariot . . .,,)

Kauṭilya advises the *Senāpati* to make a declaration to this effect to his army just before the actual commencement of the battle. It will be observed therefore that both the King and the *Kumāra* were actually fighting on the battle field, and though the king was no doubt the supreme head, yet the practical side of the military movements and operations must have been entrusted in the hands of the *Senāpati*. The position of the *Kumāra* was probably inferior to that of the *Senāpati* for in the passage quoted above the

[1] Trans., pm. 62
[2] Text., p. 368. Trans., p. 443.

Kumāra is mentioned after the commander-in-chief.[1] This is also clear from the fact that while the *Senāpati* received a salary of 48,000 *paṇas*, the *Kumāra* received only 12,000 *paṇas*. But his position if inferior was only slightly so, for we find the same reward given for his destruction. He was no doubt considered an important person because of his royal birth. In this connection it is interesting to remember that this system of associating *Kumāras* with the *Senāpatis* prevailed even in the mediaeval period of Indian History. In the Mogul period for instance it was the usual practice. Thus when Jaswant Singh and Jaisingh were sent against Sivāji in the Deccan they were accompanied on each occasion by prince Muazzam. Again when Jaisingh was sent by Shah Jehan against his rebellious son Shuja, the general was accompanied by a son of Dara, Sulaiman Shukoh. Instances might be multiplied. This system had the advantage of affording a welcome military training to the royal princes while it also afforded a check on the ambitious designs of the general and added dignity and prestige to the army. But it had also some disadvantages, and this was illustrated when Prince Akbar and Tahawwur Khan, who were fighting against the Rajputs, treacherously joined hands with Durgadas and Maharana Rajsingh, and suddenly appearing before Ajmer, nearly captured Aurangzeb and with him the Delhi throne. But the advantages of this system certainly counterbalanced the disadvantages and even in the present days we find princes of the Royal house of Windsor associated, though often in an honorary capacity, with the armies of Great Britain.

The inscriptions of Scythian, Gupta and later periods supply lists of military officers. The Manikiyala Inscription of Kaniṣka refers to Lala, the *Daḍaṇayaga* (*Daṇḍanāyaka*) of the Guṣaṇa (Kuṣāṇa) family.[2] Other inscriptions of the

[1] See *Arthaśāstra*, p. 247.

[2] N. G. Majumdar's, *List of Kharoṣṭhi Inscriptions*, No. 36.

same period refer to the *Mahāsenāpati*, the *Mahādaṇḍanāyaka* and such subordinate officers as the *Senāgopas*, *Gaulmikas* (? captains), *Ārakṣādhikṛtas* (? guards), *Aśvavārakas* (? troopers), etc.[1] The Gupta inscriptions besides mentioning the *Senāpati* and the *Mahāsenāpati* refer to the *Daṇḍanāyaka*, *Mahādaṇḍanāyaka*, *Balādhyakṣa*, *Mahābalādhyakṣa*, *Balādhikṛta* and the *Mahābalādhikṛta*. In the Nepal Inscriptions of the seventh century we meet with the *Sarvadaṇḍanāyaka*[2] and the *Mahāsarvadaṇḍanāyaka*.[3] The Pāla inscriptions mention the *Mahādaṇḍanāyaka*, *Gaulmika*, *Hastyaśvoṣṭranaubalavyāpṛtaka*, *Naukādhyakṣa*, *Hastyadhyakṣa*, *Aśvādhyakṣa*, etc.[4]

It is extremely difficult to find out the exact significance of all these epithets. It is quite possible that some of these terms are synonymous. Fleet was of opinion that the *Mahābalādhikṛta* was a synonym for *Mahābalādhyakṣa*.[5] But it is rather risky to express any definite opinion on such points in the present state of our knowledge. It is however interesting to observe that some of these officers combined other posts along with their military duties. Harisena, the composer of the famous Allahabad *praśasti* of Samudra-Gupta, combined in his person the offices of the *Mahādaṇḍanāyaka*, *Sandhivigrahika* and *Kumārāmātya*.[6] In the Bijaygaḍ Stone Inscription of the Yaudheyas their chief combines the dignities of a *Mahārāja* and *Mahāsenāpati*.[7] The Majhgawam copperplate inscription of Mahārāja Hastin states that the *Mahābalādhikṛta* Nāgasena served

[1] Dr. H. C. Raychaudhuri, *Calcutta Review*, 1925, p. 482.

[2] *Corpus Inscriptionum Indicarum*, Vol. III. The *Gupta Inscriptions*, pp. 16, 109 and n., 129, 134, 263 n.

[3] *Ibid*, Introduction, p. 178.

[4] *Gauḍalekhamālā*, p. 16. N. G. Majumdar. *Nālanda Copperplate of Devapāldeva*, p. 20.

[5] *Ibid*, *Gupta Inscriptions*, p. 109 n.

[6] *Ibid*, p. 10.

[7] *Ibid*, p 252.

as a *Dūtaka*.[1] In a Nepal epigraph we find *Mahāsarvadaṇḍanāyaka* Vikramasena serving as a *Dūtaka*. In another inscription of the same country *Mahābalādhyakṣa* Vindusvāmin is found also acting as a *Dūtaka*.[2] While a third inscription mentions *Dūtaka Sarvadaṇḍanāyaka Mahāpratihāra* Ravigupta.[3] The above facts however are not so strange as they at first sight appear to be. Even in the present days we find ministers combining several portfolios in their persons and it is not surprising that such a custom should also prevail in ancient India. Again it is quite possible that some of these officers shared in the civil administration of the country in addition to their enjoying the rank of military officers which dignity probably was conferred upon them by the king or the sovereign power in recognition of their military services. The position of Field Marshal Hindenburg as President of the German Republic might be mentioned to illustrate the point. The work of high military or civil officials as ambassadors both in modern or ancient world is too well known and so this combination of the offices of the *Dūtaka* and military officer, in ancient India, should cause no surprise.

In concluding this section I am quoting below a passage from the *Śukranīti* which gives us a list of many more officers of the army. He begins by making the suggestion that there ought to be separate officers for controlling the four separate sections of the Army (elephants, horses, chariots, infantry)[4] and then says :

Nītiśastrāstravyuhādinatividyāviśāradāḥ,
abālā madhyavayasaḥ śūrā dāntā dṛḍhāṅgakāḥ.
Svadharmaniratā nityaṁ svāmibhaktā ripudviṣaḥ,
Śūdrā vā Kṣatriyā Vaiśyā Mlecchā Saṅkarasambhavāḥ,

[1] *Ibid*, p. 108.
[2] *Ibid*, pp. 178-179.
[3] *Ibid*, p. 183.
[4] Ed. Jivananda Vidyasagar (Calcutta), Ch. II, V. 117-118.

Senādhipāḥ sainikāśca kāryā rājñā jayārthinā.
Pañcānāmathavā Saṇṇāmadhipaḥ padagāminām,
yojyaḥ sapattipālaḥ syāttrimśatām Gaulmikaḥ smṛtaḥ.
Śatānāntu śatānîkastathānuśatiko varaḥ,
senānīrlekhakaścaite śataṁ pratyadhipā ime.
Sāhasrikastu saṁyojyastathā cāyutiko mahān,
Vyuhābhyāsaṁ śikṣayedyaḥ sāyaṁ prātaśca sainikān,
jānāti sa śatānīkaḥ suyoddhuṁ yuddhabhumikām.
Tāthāvidho'nuśātikaḥ satānīkasya sādhakaḥ,
jānāti yuddhasambhāraṁ kāryayogyañca sainikam.
Nideśayati kāryāṇi senānīryāmikāṁśca saḥ,
parivṛttiṁ yāmikānām karoti sa ca pattípaḥ.
Sāvadhānam yāmikānāṁ vijānīyācca gulmapaḥ.
Sainikāḥ kati santyetaiḥ kati prāptantu vetanam.
prācīnāḥ ke kutra gatāścaitān vetti sa lekhakaḥ,
gajāśvānāṁ viṁśateścādhipo nāyakasamjñakaḥ.
Uktasaṁjñān svasvacinhairlāñcchitāṁśca niyojayet.[1]

'Those who are well up in *Nītiśāstras*, the use of arms and ammunitions, manipulations of battle arrays, and the art of management and discipline, who are not too young but of middle age, who are brave, self-controlled, able-bodied, always mindful of their own duties, devoted to their masters and haters of enemies should be made commanders (*senādhipaḥ*) and soldiers (*sainikāḥ*) whether they are Śūdras or Kṣatriyas, Vaiśyas, Mlecchas or descended from mixed castes (*Saṁkarasambhavāḥ*).

'There should be appointed a head over five or six foot-soldiers. Such an officer is called *Pattipāla*. The *Gaulmika* is the head of thirty foot-soldiers. The *Śatānika* is the head of one hundred foot-soldiers. The *Anusātika* is also the head of one hundred infantry. Similarly the *Senānī* and the *Lekhaka* must be placed over 100.[2] There should be also officers over one thousand and ten thousand.

[1] *Ibid*, verses 137 to 148.

[2] This line is probably omitted in Gustav Oppert's edition, for this line about the *Senānī* and *Lekhaka* is not translated by Mr. Sarkar who follows Oppert's edition. There

'The man who trains the soldiers in the morning and evening in military parades, and who knows the art of warfare, as well as the characteristics of battlefields is the *Śatānika*. The *Anuśātika* who has these qualifications is a help to the *Śatānika*. The *Senānī* is he who knows of the military necessaries, contingencies and the battleworthy soldiers and appoints functions to the guards and sentinels.

'The *Pattipa* is he who conducts the rotation of watchmen on duty at night. And *Gulmapa* knows carefully those on night duty. *Lekhaka* is he who knows how many soldiers are there, how much salary has been received by them, and where the old soldiers have gone.

'The master of twenty elephants or of twenty horses is known as *Nāyaka*. The king should mark the above-mentioned officers with appropriate uniforms.'[1]

It is interesting to observe that the above list contains the names of several well-known officers we have already met with in the earlier periods. The *Senānī* at once reminds us of the Vedic and Maurya *Senānī*. But his office has fallen on evil days and he is now only a petty officer. The *Nāyaka* similarly reminds us of the *Nāyaka* of the *Arthaśāstra*, but during the period of the *Śukranīti* this officer was also reduced in rank. In the *Kauṭilīya* he commanded over ten sectional *Senāpatis* and used to receive a salary of 12,000 *paṇas*; now he is only 'the master of twenty elephants or of twenty horses.' The *Gaulmika* however appears to have maintained his rank to some extent and is certainly to be identified with the subordinate military officer who is mentioned by the inscriptions of the Scythian, Gupta, Pāla and later periods.

is evidently some confusion here in the text. The commentary of Vidyasagar's edition takes the *Caulmaka* to be a leader of 30 *Pattipālas*, *Śatanikas* over 100 *Gaulmakas* and so on. But I think Mr. Sarkar is right and I have adopted his translation here.

[1] Translation by B. K. Sarkar, pp. 78-79. I have accepted his translation with modifications wherever necessary.

Non-military officers and others.

Besides the officers mentioned above there were others who though strictly speaking not military officers yet often accompanied the army to the battlefield. Such an officer was the *Purohita*. The Indians like all ancient peoples were superstitious. 'Every public event of importance, be it the entry of the king into his court or an attack on the enemy forces, or the prevention of national calamities, had generally to be preceded by various magical ceremonies which must have required the services of the *Purohita*.'[1] The *Purohita* was an expert in reading all sorts of portents and was proficient in the *Atharvan* lore. Naturally he was considered to be a great help in the army. Over and above this, he was the religious preceptor of the king—the keeper of his conscience;—he was thus considered to be a great authority in spiritual matters, and when he told the army that anybody who fell fighting bravely would sail straight to heaven, while those who would show their backs to the enemy will sink to the depths of hell—his words certainly had great effect on the soldiers and officers of the army. The following is a sample of such encouragement from the *Arthaśāstra*.

"It is declared in the Vedas that the goal which is reached by sacrificers after performing the final ablutions in sacrifices in which the priests have been duly paid for is the very goal which brave men are destined to attain. About this there are two verses—

'Beyond those places which Brahmans, desirous of getting into heaven, attain together with their sacrificial instruments by performing a number of sacrifices, or by practising penance are the places which brave men, losing life in good battles, are destined to attain immediately.'

[1] *Proceedings and Transactions of the Second Oriental Conference*, p. 392.

'Let a new vessel filled with water, consecrated and covered over with *darbha* grass be the acquisition of that man who does not fight in return for the subsistence received by him for his master, and who is therefore destined to go to hell.'" [1]

In this work the *Purohita* was assisted by the *Mantri* and his own followers. From the Udaygiri Cave Inscription of Chandragupta II we know that the minister appointed to the office of arranging peace and war (*Sācivyó vyāpṛta-sandhi-vigrahaḥ*) also accompanied the armies of conquering kings. It appears from this inscription that when Candragupta II was advancing towards Western India 'seeking to conquer the whole world' he came accompanied by Śāba also called Vīrasēna of the Kautsa-gôtra, his *Saciva* who was engaged in arranging *sandhi* and *vigraha*.[2]

Numbers of astrologers, soothsayers, court-bards and Brāhmaṇas accompanied the army. About their work the following lines are illuminating.

'Astrologers and other followers of the king should infuse spirit into his army by pointing out the impregnable nature of the array of his army, his power to associate with gods and his omniscience, and they should at the same time frighten the enemy. The day before the battle the king should fast and lie down on his chariot with weapons. He should also make oblations into the fire pronouncing *mantras* of the *Atharvaveda*, and cause prayers to be offered for the good of the victors as well as of those who attain heaven by dying in the battlefield. He should also submit his person to Brāhmans....'

[1] Text, pp. 367-68. Translation, p. 442. The story about Ambariṣa in the *Śāntiparva* of the *Mahābhārata*, which is referred to as *Itihāsam purātanam*, though placed in the mouth of the dying Bhīṣma was another typical narrative repeated by the *Purohita* and his assistants. (Chap. 93.)

[2] Fleet, *Gupta Inscriptions*, pp. 35-36.

'Soothsayers and court-bards should describe heaven as the goal for the brave and hell for the timid; and also extol the caste, corporation, family, deeds, and character of his men. The followers of the *Purohita* should proclaim the auspicious aspects of the witchcraft performed. Spies, carpenters and astrologers should also declare the success of their own operations and the failure of those of the enemy.' [1]

Besides these the army contained within its folds physicians and a surgical department. We read in the *Mahābhārata* that when the army of Yudhiṣṭhira gradually moved towards the field of Kurukṣetra the following amongst others moved with the army:

Śakaṭāpaṇaveśāśca yānayugyañca sarvaśaḥ,
koṣayantrāyudhañcaiva ye ca vaidyāścikitsakāḥ.
Phalgu yacca balam kiñcit yaccāpi kṛśadurvalam,
tat saṁgṛhya yayau rājā ye cāpi paricārakāḥ.[2]

Again, when Bhīṣma fell down pierced by the deadly arrows of Arjuna 'there came unto him some surgeons well trained (in their science) and skilled in plucking out arrows, with all becoming appliances (of their profession)' [3] Kauṭilya also provides for the attendance of the

'Physicians with surgical instruments (*śastra*), machines, remedial oils, and cloth in their hands.' [4]

When we are told by the same authority that 'women with prepared food and beverage should stand behind' the fighters, we are reminded of the Red Cross nurses of the modern times but we are rudely disillusioned when they 'utter encouraging words to fighting men.'

[1] *Arthaśāstra*, pp. 368-69. Trans., pp. 442-43. See *Manu*, VII, 89 and 94.

[2] *Udyogaparva*, Ch. 151, V. 57-58. The word 'veśo' is explained by Nīlakaṇṭha as '*veśo veśyājanāśrayaḥ paṭagṛhāṇi.*' So prostitutes also accompanied the army. That prostitutes also accompanied Epic armies is clear from *Mbh. udyoga*, CXCVII, 19.

[3] *Bhīṣmaparva*, Ch. 120, V. 55.

[4] Text, p. 369.

I shall conclude this section by referring very briefly to the question of pay of the soldiers and the military officers.

Pay.

Writers on Indian polity never fail to point out the wisdom of regularly paying the soldiers and the dangers of acting otherwise. During the course of a learned discourse on *Rājadharmānuśāsanam*, Nārada, in the *Mahābhārata*, asks Yudhiṣṭhira the following significant and pointed questions :

"Givest thou to thy troops in the appointed time their sanctioned rations and pay ? Thou dost not oppress them by withholding these ? Knowest thou that the misery caused by arrears of pay and irregularity in the distribution of ration leadeth the troops to mutiny, and that is called by the learned to be one of the greatest of mischiefs ?"[1] The chapter on *Bhṛtyabharaṇīyam* in the *Arthaśāstra* of Kauṭilya[2] clearly shows that in the period represented by the treatise, the officers were paid in cash, and only when wanting in money, 'the king may give forest produce, cattle, or fields along with a small amount of money.' Kauṭilya also insisted that 'the sons and wives of those who die on duty shall get subsistence and wages. Infants, aged persons or deseased persons related to the deceased servants shall also be shown favours. On occasions of funerals, sickness or child-birth the king shall give presentations concerned therein.' These rules were however applicable to all servants including military officers.

The discussion on the six different kinds of troops must have shown that the state had to regularly pay only its *maula* forces. The assistance of all others were requisitioned at the time of war only. That the *mitrabala* was not paid is clear from the commentary of Nīlakaṇṭha who

[1] *Sabhā*, V, 48-49.

[2] Page 247 ff.

explains the words *Bhṛtānapyabhṛtāṁstathā'*[1] as *Bhṛtān vetanabhakṣakān, abhṛtān maitryā samāgatān. Amitrabala* was also similarly not paid. Both these forces of course shared in the plunder and spoils of the war. The rank and file of the *Śreṇibala* was probably also not paid. But we learn from the *Kauṭiliya* that the *Śreṇīmukhyas* used to receive salaries from the state treasury. Each of the *mukhyas* received as much as 8,000 *paṇas* per annum.[2] The *Aṭavībala* also probably did not receive any regular pay but shared in the plunder and spoils of the war. The *Bhṛtakas* were of course hired on the occasion and the rate of payment must have varied according to the comparative excellence of the fighters recruited. The *Arthaśāstra* tells us that the pay of a *śilpavanta pādāta* should be 500 *paṇas* per annum.[3] This was probably the pay of the *maula* soldiers who were all skilled and veteran fighters in the regular service of the state. The chapter entitled the *Bhrityabharaṇīyam*[4] in the *Arthaśāstra* gives some more interesting facts about the amount of salary of army officials. The *Senāpati* was one of the highest salaried officers and received 48,000 *paṇas*; the *Kumāra* 12,000, the *Mukhyas* and the *Adhyakṣas* of infantry, cavalry, chariots and of elephants 8,000 and 4,000 *paṇas* respectively. The *Rathika* (chariot driver) and the army physicians and surgeons, 2,000, the spies of the *Saṁsthāḥ* section 1,000 *paṇas* and the bodyguards 60 *paṇas*. The importance of the elephant in this period is shown by the fact that the elephant driver used to receive comparatively the high salary of 1,000 *paṇas* while a carpenter or an artisan received only 120.

[1] *Udyogaparva*, Ch. 164, V. 8.
[2] Text, p. 247.
[3] Text, p. 248.
[4] Pp. 247 ff.

CHAPTER III.

Numerical Strength of Indian Armies.

In the last chapter I have discussed in detail some of the important facts about the 'Army' in ancient India. In this chapter I intend to collect data for the illustration of the strength of Indian armies in the Hindu period. I shall at first set forth the facts as I collect them from the various sources reserving my comments for the conclusion.

In the Vedic period, the tribal states were comparatively small in extent, and though there were almost continuous wars and conflicts amongst these tribes, we search in vain amongst the Vedic texts for any light on the numerical strength of their armies. It would have been extremely interesting, for example, if we could find out the number of the combatants that were engaged in the famous battle on the banks of the Paruṣṇi (Ravi) between the ten allied kings and Sudās, the gallant chief of the Tṛtsus. But, as I have said, the sources at our disposal are silent on this point. A search in the Epics however leads to more fruitful results. The *Mahābhārata* which describes the great battle on the field of Kurukṣetra supplies us with some information on the numerical strength of the armies that were assembled in the Kuru and Pāñcāla camps. The *Akṣauhiṇī*, it appears from this epic, was regarded as 'one complete army.' According to Indian tradition it seems to have been composed of 21,870 chariots, an equal number of elephants, 65,610 cavalry and 109,350 infantry. The more powerful of the Indian kings who assembled at Kurukṣetra each came accompanied by one *Akṣauhiṇī* of soldiers. The following passage from the *Mahābhārata* gives a graphic description of these kings and the armies they brought with them.

"Then Yuyudhana, the great hero of the Satwata race, came to Yudhishthira with a large army of foot, and horse, and cars, and elephants. And his soldiers of great valour,

came from various lands, bore various weapons of war, and heroic in look, they beautified the Pāṇḍava army. And that army looked splendid by reason of battle axes, and missiles, and spears, and lances, and mallets and clubs, and staves, and cords, and stainless swords, and daggers and arrows of various kinds, all of the best temper. And the army, beautified by those weapons, resembling in colour the cloudy sky assumed an appearance like a mass of clouds with lightning flashes in its midst. And the army counted an *Akshauhini* of troops. And when absorbed in the troops of Yudhishthira, it entirely disappeared as doth a small river when it enters the sea. And similarly, the powerful chief of the Chedis, Dhrishtaketu, accompanied by an *Akshauhini*, came to the sons of Pāṇḍu of immeasurable strength. And the king of Magadha, Jayatsena of great strength, brought with him for Yudhishthira an *Akshauhini* of troops. And similarly Pāṇḍya accompanied by troops of various kinds who dwelt on the coast land near the sea came to Yudhishthira the king of kings. And O king, when all these troops had assembled, his army, finely dressed and exceedingly strong, assumed an appearance pleasant to the eye. And the army of Drupada also was beautified by valiant soldiers who had come from various lands, and also by his mighty sons. And similarly Virāṭa, the king of Matsyas, a leader of troops, accompanied by the king of the hilly regions, came to Pāṇḍu's sons. And for the high-souled sons of Pāṇḍu, there were thus assembled from various directions, seven *Akshauhinis* of troops, bristling with banners of various forms. And eager to fight with the Kurus, they gladdened the hearts of the Pāṇḍavas. And in the same way king Bhagadatta, gladdening the heart of Dhritarāṣṭra's son, gave an *Akshauhini* of troops to him. And the unassailable mass of his troops, crowded with Chins and Kirātas, all looking like figures of gold, assumed a beauty like to that of a forest of *Karnikāra* trees. And so the valiant Bhuriśravas, and Śalya, O son of Kuru, came

to Duryodhana with an *Akshauhini* of troops each. And Kritavarman, son of Haridika, accompanied by Bhojas, the Andhas, and the Kukuras, came to Duryodhana with an *Akshauhini* of troops. And the body of his troops composed of those mighty soldiers, who wore on their persons garlands of many-coloured flowers, looked as graceful as a number of sportive elephants that have passed through a wood. And others led by Jayadratha, the dwellers of the land of Sindhu-Sauvira, came in such force that the hills seemed to tremble under their tread. And their force, counting an *Akshauhini*, looked like a mass of clouds moved by the wind. And Sudakshina, the king of Kambojas, O ruler of men, accompanied by the Yavanas and Sakas, came to the Kuru chief with an *Akshauhini* of troops. And the body of his troops, that looked like a flight of locusts, meeting with the Kuru force, was absorbed and disappeared in it. And similarly came king Nila, the resident of the city of Māhishmati, with mighty soldiers from the southern country, who carried weapons of a pretty make. And the two kings of Avanti, accompanied by a mighty force, brought Duryodhana each a separate *Akshauhini* of troops. And those tigers among men, the five royal brothers, the princes of Kekaya, hastened to Duryodhana with an *Akshauhini* of troops, and gladdened his heart. And from the illustrious kings of other quarters there came, O best of Bharata's race, three large divisions of troops. And thus Duryodhana had a force which numbered eleven *Akṣauhiṇis* all eager to fight with the sons of Kunti and bristling with banners of various kinds....." [1]

The following table illustrates the composition and the combined strength of the Kaurava and Pāṇḍava forces:

[1] *Mahābhārata*, P. C. Ray's Trans., *Udyogaparva*, Section XVIII; Vangavasi Ed., Ch. 19.

Kaurava.	Numerical strength in *Akṣauhiṇīs.*	Pāṇḍavas.	Numerical Strength in *Akṣauhiṇīs.*
I. Bhagadatta, king of Prāgjyotiṣa	1	I. Yuyudhāna, the great hero of the Sātvata race ...	1
II. Bhuriśravas ...	1	II. Dṛstaketu, the powerful chief of the Cedis ...	1
III. Śalya, king of Madra ...	1	III. Jayatsena, king of Magadha ...	1
IV. Kṛtavarman son of Haridika ...	1	IV. The hosts of the kings of Pāṇḍya, Pāncāla, Matsya, etc. ...	4
V. Jayadratha, king of Sindhu-Sauvīra	1		
VI. Sudakṣiṇa, king of Kāmbojas	1		
VII. Two kings of Avanti ...	2		
VIII. Princes of Kekaya	1		
IX. Miscellaneous.[1]	2		
Total	11	Total	7

The total strength of the armies assembled on either side therefore was :

	Chariot.	Elephant.	Horse.	Foot.
Pāṇḍava ...	153,090	153,090	459,270	765,450
Kurus ...	240,570	240,570	721,710	1,202,850

In the following verses, the *Rāmāyaṇa* gives us an idea of the numerical strength of the Vānara hosts of Rāma that

[1] *Ibid.* There is apparently a confusion here in the text. For we are told in verse 26, that '*tisro'nyāḥ*' or 3 *Akṣauhiṇīs* came from other sources. But in verse 27, the total is given as eleven (*evamekādaśāvṛtāḥ*). But three *Akṣauhiṇīs* under miscellaneous would make the total twelve. So I have ventured to correct the text and accepted two in the place of three.

were assembled at the capital of Sugrīva before he marched southwards to invest Laṅkā :—

Etasminnantare caiva rajaḥ samabhivarttata,
uṣṇatīvrāṁ sahasrāṁśoścchādayadgagane prabhām.
Diśaḥ paryākulāścāsan tamasā tena düṣitāḥ,
cacāla ca mahī sarvā saśailavanakānanā.
Tato narendrasaṅkāśaistīkṣṇadaṁṣṭraimahāvalaiḥ,
kṛtsnā sañcchāditā bhūmirasaṅkhyeyaiḥ plavaṅgamaiḥ.
Nimeṣāntaramātreṇa tatastairhariyūthapaiḥ,
koṭīśataparīvārairvānaraihariyuthapaiḥ.
Nādeyaiḥ pārvateyaiśca sāmudraiśca mahabalaiḥ,
haribhirmeghanirhādairanyaiśca vanavāsibhiḥ.
Taruṇādityavarnaiśca śaśigauraiśca vānaraiḥ,
padmakesaravarṇaiśca śvetairhemakṛtālayaiḥ.
Koṭīsahasrairdaśabhih śrīmān parivṛtastadā,
vīraḥ Śatavalirnāma vānaraḥ pratyadṛśyata.
Tataḥ kāñcanaśailābhas-Tārāyā vīryavān pitā,
anekairvahusāhasraiḥ koṭibhiḥ pratyadṛśyata.
Tathāpareṇa koṭīnāṁ sahasreṇā samanvitaḥ,
pitā Rumāyāḥ samprāptaḥ Sugrīvaśvaśuro vibhuḥ.
Padmakesarasaṅkāśastaruṇārkanibhānanaḥ,
Vuddhimān vānaraśreṣṭhaḥ sarvavānarasattamaḥ.
Anekairvahusāhasraivānarāṇām samanvitaḥ,
pitā Hanūmataḥ śrīmān Keśarī pratyadṛśyata,
Gālāṅgulamahārājo Gavākṣo bhīmavikramaḥ,
vṛtaḥ koṭisahasreṇa vānarāṇāmadṛśyata.
Ṛkṣāṇāṁ bhimavegānām Dhūmraḥ śatrunivarhaṇaḥ,
vṛtaḥ koṭisahasrābhyāṁ dvābhyāṁ samabhivarttata.
Mahāhalanibhairghoraiḥ Panaso nāma yüthapaḥ,
ājagāma mahāvīryastisṛbhih koṭibhirvṛtaḥ.
Nilāñjanacayākāro Nīlo nāmaiṣa yūthapaḥ,
adṛśyata mahākāyaḥ koṭibhirdaśabhirvṛtaḥ.
Tataḥ kāñcanaśailābho Gavayo nāma yūthapaḥ,
ājagāma mahāvīryaḥ koṭibhiḥ pañcabhirvṛtaḥ.

Darīmukhaśca valavān yūthapo'bhyāyayau tadā,
vṛta koṭisahasreṇa Sugrivaṁ samavasthitaḥ.
Maindaśca Dvividaścobhāv-Aśviputrau mahāvalau,
koṭikoṭisahasreṇa vānarāṇāmadṛśyatām.
Gajaśca balavān vīrastisṛbhiḥ koṭibhirvṛtāḥ,
ṛkṣarājo mahātejā Jāmbavānnāma nāmataḥ.
Koṭibhirdaśabhirvyāptaḥ Sugrīvasya vaśe sthitaḥ,
Rumaṇo nāma tejasvī vikrāntairvānarairvṛtaḥ.
Āgato valavāṁstūrṇaṁ Koṭiśatasamāvṛtaḥ,
tataḥ koṭisahasrāṇām sahasreṇa śatena ca,
Pṛṣṭhato 'nugataḥ prāpto haribhir-Gandhamādanaḥ,
tataḥ padmasahasreṇa vṛtaḥ śaṅkhaśatena ca.
Yuvarājo 'ṅgadaḥ prāptaḥ pitustulyaparākramaḥ,
tatastārādyutis-Tāro haribhirbhīmavikramaiḥ.
Pañcabhirharikoṭībhirdūrataḥ paryadṛśyata,
Indrajānuḥ kapirvīro yūthapaḥ pratyadṛśyata.
Ekādaśānām koṭīnāmīsvarastaiśca saṁvṛtaḥ,
tato Rambhastvanuprāptastaruṇādityasannibhaḥ.
Ayutena vṛtaścaiva sahasreṇa śatena ca,
tatto yūthapatirvīro Durmukho nāma vānaraḥ.
Pratyadṛśyata-Koṭibhyāṁ dvābhyaṁ parivṛto balī,
Kailāsaśikharākārairvānarairbhīmavikramaiḥ.
Vṛtaḥ koṭisahasreṇa Hanūmaṇ pratyadṛśyata,
Nalaścāpi mahāviryaḥ saṁvṛto drumavāsibhiḥ.
Koṭīśatena samprāptaḥ sahasreṇa śatena ca,
tato Darīmukhaḥ śrīmān koṭībhirdaśabhirvṛtaḥ.
Samprāpto 'bhinadaṁstasya Śugrīvasya mahātmanaḥ,
Śarabhaḥ Kumudo Vahnirvānaro Rambha eva ca.
Ete cānye ca vahavo vānarāḥ kāmarūpiṇaḥ,
āvṛtya pṛthivīṁ sarvāṁ parvatāṁśca vanāni ca.
Yuthapāḥ samanuprāptā yeṣāṁ saṅkhyā na vidyate,
āgatāśca niriṣṭāśca pṛthivyām sarvavānarāḥ.
Āplavantaḥ plavantaśca garjantaśca plavaṅgamāḥ,
abhyavartanta Śugrivaṁ suryamabhragaṇā iva.[1]

[1] Kiṣkindhyākāṇḍa, Sarga, 39, Verses 8-40.

The following table will give an idea of the numerical strength of the armies that accompanied the various Vānara chieftains and assembled in the capital of King Sugrīva:

	Name of chiefs.	Numerical strength of the armies. Koṭi.	Thousand.
1.	Śatavalī ...	1	10
2.	Suṣeṇa (father of Tārā) ...	*Anekavahu-sāhasraiḥ* (Thousands of *koṭis*)	
3.	Father of Rumā ...	1,000	
4.	Kesarī (Father of Hanūmān) ...	(Thousands of *koṭis*)	
5.	Gavākṣa (*Mahārāja* of Gālāṅgula country) ...	1,000	
6.	Dhūmra (Chief of the Ṛksas) ...	2,000	
7.	Panasa (*Yūthapati*) ...	3	
8.	Nīla (*Yūthapati*) ...	10	...
9.	Gavaya ,, ...	15	...
10.	Darīmukha (*Yūthapati*) ...	1,000	...
11.	Mainda and Dvivida (sons of Aśvi) ...	1,000	...
12.	Gaja	3	...
13.	Jāmbavat (king of the Ṛkṣas)	10	
14.	Rumaṇa	100	...
15.	Gandhamādana ...	1,000	100
16.	Aṅgada (*Yuvarāja*)	*Padmasahasreṇa vṛtaḥ saṅkha śatena ca*[1]	

[1] 1,000 *padmas* and 100 *saṅkhas*; one *padma* is equivalent to 1,000 billions. One illion is equal to 'a million millions.' According to some authorities one *padma* is equal to 10,000,000,000,000, and one *Saṅkha* is equal to 10,00,000,000. According to others a *aṅkha* is equal to 'a hundred billions.' In U.S. a billion is equal to a thousand millions. Consult *Oxford Concise Dictionary*, Apte's *The Practical Sanskrit-English Dictionary*, and Nanendra Mohan Das, *Bāngālā Bhāsār Abhidhāna*.

	Name of chiefs.	Numerical strength of the armies. Koṭi.	Thousand.
17.	Tāra	5	...
18.	Indrajānu	11	...
19.	Rambha	...	11 (and one hundred)
20.	Dūrmukha (*Yūthapati*) ...	2	...
21.	Hanūmān	1,000	...
22.	Nala	100	100
23.	Darīmukha	10	...

etc.

The Jātaka stories sometimes give us the numerical strength of Indian armies. A verse in the *Vessantara Jātaka* tells us that king Sañjaya had an army of 60,000 warriors consisting of 'horses, chariots, elephants and soldiers.' This army contained 14,000 elephants 'with trappings all of gold' as many horse and as many chariots. The remainder, *i.e.*, 18,000 probably were foot soldiers and infantry.[1] The *Mahā-unmagga Jātaka* also refers to an army of 60,000 soldiers [2] while in another place we have a reference to an army consisting of 30 and 9 thousand warriors. [3]

The historians of Alexander have left us interesting information on this point. I give below a list of Indian tribes, kings and cities and the numerical strength of their armies.

	Name of tribes, kings, or cities.	Numerical strength of the armies.
1.	Massaga (city, defended by) [4]	38,000 infantry.
2.	Porus [5]	(*a*) 30,000 Infantry, 300 chariots and 85 elephants (Curtius). (*b*) 50,000 foot, 3,000 horse 1,000 chariots and 130 elephants (Diodorus).

[1] Tr., Vol. VI, p. 298.
[2] *Ibid*, pp. 223-24.
[3] *Ibid*, p. 231.
[4] McCrindle, *Ancient India, its invasion by Alexander the Great*, p. 194.
[5] *Ibid*, pp. 203-04; p. 274.

	Name of tribes, kings, or cities.		Numerical strength of the armies.
3.	Agrammes[1]	...	20,000 cavalry, 200,000 infantry, 2,000 four-horsed chariots and 3,000 or 4,000 elephants trained and equipped for war. (Curtius and Diodorus.)
4.	Sibi[2]	...	40,000 foot-soldiers.
5.	Malli or Malloi[3]	...	90,000 foot-soldiers, 10,000 cavalry and 900 war chariots.
6.	Sabracae[4]	...	60,000 foot, 6,000 cavalry.
7.	Agalassians[5]	...	40,000 foot, and 3,000 horse.
8.	Assakenoi	...	30,000 infantry and 20,000 cavalry.
9.	Androkottas[6]	...	'Overran and subdued the whole of India with an army of 600,000 men. (Plutarch.)

Megasthenes, the Greek ambassador who visited the Maurya court sometime after the Seleukidan war, has left us an account of the various Indian races and has incidentally mentioned the numerical strength of their armies. The information gathered from this source is arranged in the following table:

	Name of the tribe, city, etc.		Numerical strength of the armies.
1.	Calingae	...	60,000 foot, 1,000 horsemen, and 700 elephants.
2.	Molindae, Uberae and Moduboe.		50,000 foot, 4,000 cavalry and 400 elephants.
3.	Andarae	...	100,000 infantry, 2,000 cavalry and 1,000 elephants.

[1] *Ibid*, pp. 221-22, 281.
[2] *Ibid*, p. 232.
[3] *Ibid*, p. 234. Acc. to Diodorus, 80,000 foot, 10,000 horse and 700 chariots, p. 287.
[4] *Ibid*, p. 252.
[5] *Ibid*, p. 285.
[6] *J.A.S.B.* (*New Series*), Vol. XIX, 1923, p. 367.

Name of the tribe, city, etc.	Numerical strength of the armies.
4. Prasii ... (capital Palibothra)	600,000 foot, 30,000 cavalry, 9,000 elephants.
5. Automela (city)	... 150,000 foot, 1600 elephants and 500 cavalry.
6. Pandae	... 150,000 foot and 500 etephants.
7. Gangaridae	... 60,000 foot, 1,000 horse and 700 elephants.

The above facts cannot but be highly interesting to a student of Indian military science. The figures as we shall see, can also be of some use to the students of Indian Literature. Now let us consider the data supplied by the *Mahābhārata*. At the first glance the figures appear to be fictitious. But a closer study reveals that there is nothing inherently impossible in them and the figures at best are a bit exaggerated. We should bear in mind that the army of Dareius, the Achamaenian emperor, totalled a million men at Gaugamela, while coming nearer home and landing on solid historical facts we find Indian armies sometimes totalling more than 3,000,000 combatants. Major T. W. Haig has shown that the armies of the Vijaynagar kings even as late as the 16th century reached incredible figures. In 1399 Harihara II attempted to conquer the Raichar Duab with an army of 30,000 horse and 900,000 foot while in 1521 Krishnaraya put into the field an army of 50,000 cavalry and 600,000 infantry. In 1564 the army of Sadashivaraya is said to have 'amounted to in all 100,000 horse and 3,000,000 foot, with 2,000 elephants and 1,000 guns.'[1] The reason why such huge number of combatants assembled at Kurukṣetra appears to have been owing to the fact that the conflict though immediately brought about by the family feuds of the Kauravas, was really a conflict of the nations where the pent-up feelings of ages found their final solution by

[1] Haig, *Historical Landmarks of the Deccan*, pp. 108, 122 and 129-30.

the argument of the sword. The *janapadas* were still tribal, where nearly every able-bodied man,—Brāhmaṇa, Kṣatriya, Vaiśya or Śūdra was a soldier and unlike the later ages when kings or dynasties fought with their enemy kings or dynasties, tribes and nations fought with each other. This fact to some extent leads to the assemblage of larger forces of combatants. The last great war was a conflict of the nations and as a consequence the numerical strength of the allied and Germanic nations has passed all previous records.

Next we come to the data supplied by the *Rāmāyaṇa*. There appears to be no doubt that the figures supplied by this epic is not only exaggerated but also highly fictitious. Armies continue to pour in the capital of Sugrīva whose numerical strength is measured not by thousands or by tens of thousand or by *Koṭis*, *i.e.*, hundreds of lacs (100,000) and very often the *Rāmāyaṇakāra* tells us, that the armies of individual Vānara chieftains amounted to 1,000 or even 2,000 *koṭis*. The climax is reached when Aṅgada leads an army of '*padmasahasreṇa vṛtaḥ saṅkha śatena ca*,' *i.e.*, 1000 × 10,000,000,000,000 (*padma*) + 100 × 1,000,000,000 (*saṅkha*) combatants. Surely there is a limit to credibility, more so when we remember that Aṅgada was only one amongst more than two dozen other generals. This tendency towards exaggeration and fanciful poetical flights are regarded by many as evidence of the comparative lateness of the *Rāmāyaṇa*.

The figures supplied by the *Jātaka* stories and the classical historians can be accepted as historical. One interesting point that strikes us in this connection is the gradual decrease in the number of cavalry and the enormous increase in the number of infantry in Indian armies. In the *Vessantara Jātaka* the number of the 4 sections of the Indian army was almost equal. The facts are supplied in the verse portion of the story and is therefore to be referred, most probably, to a period anterior to the 4th

century B. C. Already in the time of Alexander the proportion has reached 1 (cavalry) to 10 (infantry), while in the time of the Mauryas the proportion is sometimes so low as 1 to 60. Another interesting fact is the gradual disappearance of the chariots from Indian armies. I have already drawn the attention of scholars on this point in my last chapter. It will be observed that while chariots in the time of Alexander still formed an important part of the Indian armies, in the time of the Mauryas, this unit probably began to disappear from the Indian armies and it is highly significant that the chariots, the brave car-fighters and their skilful *sārathis* are altogether omitted by Megasthenes when he gives us the figures of the Indian armies. Surely the car-warrior had fallen on evil days. The elephants however retained a position of importance in the Indian armies till the dawn of Moslem conquests in India.

Laghumanasam of Munjala*

BY

N. K. MAJUMDER, M.A.

The object of this Paper is to give a brief account of Laghumānasam of Muñjāla, a Karaṇa-Grantha.

Authorship.—The Author of this small Treatise is Muñjāla, the celebrated astronomer of the 9th Century Śāka, who is quoted by Bhaskaracharyya in connection with the Precession of Equinoxes. Bhaskaracharyya even accepts the rate of motion of the Equinoctial Points as given by Muñjāla. Pd. Sudhakara Dvivedi also quotes a number of verses from some writings of Muñjāla in Āryyā metre about Precession and its rate. According to Muñjāla, Pd. Sudhakara Dvivedi says, Precession was nil at 434 Śāka.

Manuscripts.—The Calcutta University has been able to secure a very large number of Manuscripts of "Laghumānasam"—7 from Mysore, 1 from Cochin, 2 from Trivandrum, 11 from Madras, and 2 from Vizagapatam. These also include different and valuable commentaries, namely, by Prasastidhara, Yallaya, Suryyadeva Yajva and Parameswara, besides a Telugu Commentary. Of the 4 commentators, Suryyadeva and Parameswara are well-known as the Commentators of *Āryyabhaṭiyam*. Prasastidhara seems to belong to the 9th Century Śāka (c. 880 Śāka), while Yallaya is said to be the son of Sridharacharyya and pupil of Suryyadeva. (See Dr. Kern's Edition of *Āryyabhaṭiyam*, Introduction, p. xi.)

Subject.—As already mentioned, *Laghumānasām* is a Karaṇa-Grantha and not a Siddhānta. It is composed in

* Read before the Oriental Conference in January, 1922.

Anuṣṭubh metre, and contains only 60 verses distributed as follows—

(1)	Madhyamādhikara	10	Verses.
(2)	Sphuṭa-gati-adhikara	7	,,
(3)	Prakīrṇādhikara	4	,,
(4)	Triprasnādhikara	9	,,
(5)	Eclipse and conjunction	20	,,
(6)	Miscellaneous—Dṛk-karma, Udaya, Asta, Śṛṅgonnati, Valana, etc.	10	,,
		60	,,

Of course in this Treatise the rules quot ed by Pandit Sudhakara Dvivedi are not found, as we would scarcely expect to find them in a book which is not a siddhānta. But many of the rules take into account the rate of Precession.

The First Śloka is

प्रकाशादित्यवत् ख्यातो भारद्वाजो द्विजोत्तमः ।
लघ्वपूर्वस्फुटोपायं वक्ष्येऽन्यल्लघुमानसम् ॥१॥

Here "anyat," according to the Commentator, refers to another Treatise by Muñjāla, presumably *Brihanmānasam*, from which a number of quotations seems to have been given by Prasastidhara as follows—

कृतशरवसुमितशाके चैत्रादौ सौरिवारमध्याह्ने ।
राश्यादिरजन्मपार्का रविरिन्दुर्भवधृति-द्वियमाः ॥
सूर्य्याच्चन्दोच्चांशा वसुतुरगाः पर्वतास्तु सत्वंशाः ।
खरविवयः खाकृतयो द्विनगभुवोऽशीतिरद्रिजिनाः ॥
द्वयत्कृतिखानि युगोत्कृतिकराब्धयः खाष्टनव दशत्रिसुराः ।
गोऽष्टाविंशतितानाः कुजादयः सूर्य्यभगणान्ते ॥
संक्रान्तितिथिध्रुवकः शक्रा वसुनवरसेषवो राहोः ।
कृतयमवसुरसदशका दशाहताः शेषपातांशाः ॥

अयनचलना: षड़ंशा: पञ्चाग्निभिस्तिथैकैका ।
प्रत्यब्दं तत्सहितो रविरुत्तरविषुवदादौ स्यात् ॥
अन्तरयुक्ते हीने भानौ चन्द्राधिके क्रमादूने ।
चक्रोने शतगुणिते खरनिधिभक्ते तु संक्रमतिथि: स्यात् ॥

Prasastidhara, in his opening lines, gives his reasons for commenting on this Treatise, which very neatly summarises the success which the author of *Laghumānasam* has attained in his object as expressed in the First Śloka.

एकं चास्ति बहुधा यद्ब्रह्म परं प्रणम्य तन्नत्वा ।
लघुमानसकरणस्य तनुते विवृतिं प्रशस्तिधर: ॥
अल्पग्रन्थमनल्पं प्रयासरहितं परिस्फुटं व्यापि ।
समदृग्गणितमतो मे तद्विवृतावस्ति बहुमान: ॥

This is really a small Treatise, but of no mean importance on that account—the results can be obtained with very little labour, the results are very nearly correct, and all-embracing, and the calculations correspond to the apparent phenomena.

Points of importance

(*a*) *Sine* is considered positive in the first two and negative in the last two quadrants ; while the *cosine* is considered positive in the first and the fourth quadrants, and negative in the second and the third.

(*b*) The mean position of the planets is found by practically every Indian Astronomer from the "Ahargaṇa" from a certain epoch, *i.e.*, by using one co-ordinate only, but Muñjāla makes use of (1) the number of years elapsed and (2) a certain element called "Dyu-gaṇa," which is quite different from "Ahargaṇa." The results are obtained very easily in terms of these two co-ordinates.

(*c*) The radius is taken as 8 degrees 8 minutes=488 minutes. The jyā of one sign is 4 degrees 4 minutes. The jyā of two signs is=7 degrees 7 minutes nearly. The jyā of any other angle is found by proportion. The method is thus very rough, but the result is obtained quickly.

(*d*) Compare some of the following passages for brevity of expression—

Verses 11-12

ग्रहः स्वोच्चोनितः केन्द्रं तदूर्ध्वाधोऽर्धजो भुजः ।
धनर्णं पदशः कोटी धनर्णधनात्मिका ॥११॥
ओजे पदे गतैष्याभ्यां बाहुकोटी समेऽन्यथा ।
चतुर्ज्याकघ्नराश्यैक्यं बाहुकोट्योः कलांशकाः ॥१२॥

Verse 16, 2nd Half

ताराग्रहार्कयोः शीघ्रः शीघ्रोच्चमितरो ग्रहः ॥

Verse 20

अवन्तिसमयाम्योदग्रेखा पूर्वापराध्वना ।
ग्रहगत्यंशषष्ट्यंशो हृतो लिप्तास्वर्णं धनम् ॥

Verse 21

व्यर्केन्दोस्तिथितिथ्यर्धे ग्रहाद् भान्यनुपातनः ।
योगश्चन्द्रार्कसंयोगात् तदाद्यन्तौ स्वभुक्तितः ॥

Verses 53-54

सूर्याष्टिविश्वरुद्राष्टतिथ्यंशघ्नैः खखाग्निभिः ।
प्राग्भोदयासैर्युक्तोनः सूर्याऽस्तार्कः शशाङ्कतः ॥
अगस्त्यास्तोदयार्कांशाः सप्तशैलाः खराङ्कताः ।
अष्टघ्नविषुवच्छायाहीना युक्ताः स्वदेशजाः ॥

Verse $58\frac{1}{2}$

द्यूनाः पञ्चादितिथ्यर्धाः सखागांशाः सितामिते ।

In 30 karaṇas, we get 32 aṅgulis of the moon, the formula being

$$(\text{करण} - २)\left(१ + \tfrac{१}{५}\right) \text{अङ्गुलि} .$$

(*e*) *Verse 60* runs thus—

मानसाख्यं ग्रहज्ञानं श्लोकषष्ट्या मया कृतम् ।
भवन्त्यतोऽयशोभाजः प्रतिकञ्चुककारिणः ॥

(इति मुञ्जालाचार्यविरचितमानसकरणं समाप्तम्) ।

This seems to show that the Treatise was written at a ripe

age, and the author can speak with confidence on the subjects dealt with.

(*f*) Verse 14 gives the method of obtaining the equation of centre of the Sun and the Moon ; while verses 18-19 give a second equation for the Moon. This was noticed by Pd. Sudhakara Dvivedi. The object seems to be to get the calculated position of the Moon as nearly corresponding with the apparent position as possible.

(*g*) Throughout the whole Treatise we find an attempt at expressing every formula as generally as possible, so that the same formula might suffice to suit more than one case. In particular, I may mention that, with Muñjāla, "Eclipse" and "Conjunction" are not different things, but the same phenomenon in connection with different pairs of the celestial objects, and he formulates the rules accordingly.

We had been in search of the Treatise in Āryā metre from which "Marichi" quotes the rules for Precession. Failing that we have obtained another treatise, a fuller account of which is now possible on account of the various MSS. obtained than that given by Pd. Sudhakara Dvivedi. It is expected that an English Edition of this Treatise will shortly be published by the University.

I take this opportunity of expressing my indebtedness to Pd. Babua Misra, University Lecturer, for helping me with an explanation of many of the complicated passages.

On the Purvas

BY

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§ 1. *Introductory.*—All who are interested in the study of Jainism are well acquainted with the opinions of such pioneer workers as Barth, Weber and Lassen who maintained that Jainism was nothing but an offshoot of Buddhism. They went so far as to emphasise that valid inferences could not be drawn from the sacred books of the Jainas as these were reduced to writing as late as the 5th century A. D. The fruitful investigations of Jacobi, Bühler and Hoernle, later on, dispelled all such illusions and definitely established that Jainism was not only of independent growth but also that its founder was an elder contemporary of Gautama Buddha. Jacobi put forward definite proofs of the authenticity of the Jaina literature and relegated it to a date as early as the 3rd century B. C. Besides these he indicated that there were some earlier works—called the *pūrvas*, which can be dated even prior to the *aṅgas* which represent the earlier portion of the existing Jaina canon. The object of the present paper is to see whether any clearer lights can be thrown on these *pūrvas*.

§ 2. *The traditional accounts* are unanimous in maintaining that the *pūrvas* constituted an earlier literature and that they were fourteen in number. Regarding their loss the tradition gives us a long story and this may be summed up thus :—As soon as the eleven Aṅgas were collected in the Council of Pāṭaliputra, the Saṅgha felt the necessity of recovering the fourteen *pūrvas* also. In order to recover them the Saṅgha sent two monks to Bhadrabahu who was away in Nepal, as he only was the master of the whole thing then. Bhadrabahu declined to come back to Pāṭaliputra

[1] This paper was read before the Section of Religion of the Second Oriental Conference held in Calcutta in January, 1922.

as he had undertaken a twelve years' vow and promised to teach the *pūrvas* after that period was over. The Saṅgha was not however satisfied and threatened him with "excommunication." Bhadrabahu found no other alternative than to submit and agreed to teach the *pūrvas* to a selected number of monks. Five hundred monks along with Sthulabhadra were sent but all of them except the latter fell off, being tired of the slowness of the progress.

Sthulabhadra succeeded in mastering the first ten *pūrvas* at the end of a period of 12 years, when he was declared unworthy of being taught the remaining four as he had then indulged in showing miracle, to his sisters. Through the intervention of the whole Saṅgha, however, Bhadrabahu taught him the rest of the *pūrvas* on condition that he would not teach them to anybody else. Sthulabhadra in his turn, therefore, could not teach the last four *pūrvas* to his two disciples Mahagiri and Suhastin.

§ 3. *The traditions examined.* Now the questions which suggest themselves are—(1) whether the 14 *pūrvas* really existed and constituted an earlier canon, as the traditions would unanimously have us believe, and (2) had they existed what it is that ultimately led to their disappearance. Is there anything historical in this traditional account of their loss or is it merely a fiction contrived to supply justification for the negligence on the part of Sthulabhadra through which the last four *pūrvas* fell into disuetude.

The real existence of the *pūrvas* at one time can in no way be questioned as we still meet with a detailed list of their contents both in the 4th aṅga, the Samavāyāṅga and the Nandisūtra. Their names as enumerated are—(1) *Utpādapūrva*, (2) *Agrāyaṇiyapūrva*, (3) *Vīryapravādapūrva*, (4) *Astināstipravādapūrva*, (5) *Jñānapravādapūrva*, (6) *Satyapravādapūrva*, (7) *Ātmapravādapūrva*, (8) *Karmapravādapūrva*, (9) *Pratyākhyānapravādapūrva*, (10) *Vidyānupravādapūrva*, (11) *Kalyāṇapūrva*, (12) *Prāṇāvāyapūrva*, (13) *Kriyāviśālapūrva*,

(14) *Lokavindusārapūrva.* Further, it is stated that each of the *pūrvas* consisted of chapters technically known as *vastus* or topics. From the short description of the subject-matter under each head they appear to have been discourses on various topics, both philosophical and ethical, of an elementary character.

This account of the *pūrvas* cannot however be considered as a fraud for supplying the Jain doctrines with an older authority as no Jaina tradition claims to maintain that aṅgas were derived from them. Rather in opposition they are known to have been co-existent with the *pūrvas* from the time of the first Tirthaṁkara. "As a fraud," therefore, as Jacobi rightly points out, "the tradition about the *pūrvas* would be unintelligible but accepted as truth it well falls in with our views about the development of the Jain literature."

The next question to be considered is whether these *pūrvas* constituted an earlier canon and if so what is their position relative to the *aṅgas*. That they formed an earlier canon appears to be extremely probable for reasons not far to seek. These are—

(1) The very title *pūrva* which means "*earlier*" points to this. It is besides confirmed by an independent tradition which records that Mahāvira first recited to his *gaṇadharas* the contents of the *pūrvagatasūtras* (*pūrvas*) whereupon the gaṇadharas in their turn brought the contents of these into the form of *aṅgas*, *āchāras*, etc.

(2) The Bhagavati-Sutra records that among the disciples of Makkhali Gośāla, the Ājivika leader, there were six who were called the Diśācaras. They created an Ājīvika canon consisting of eight *mahānimittas* and two *maggas*. It is furthermore stated that "this literature sprang out of the extracts made by the Diśācaras according to their own ideas from the *pūrvas* and that Gośāla derived the six characteristic features of the organic world therefrom." That these *pūrvas* are the same as those under consideration, there can be no

doubt. One of the earliest inscriptions of Sravana Belgola tells us that Bhadrabahusvāmin possessed a thorough knowledge of the *astāṅga-mahānimittas*. Attention has already been drawn to the tradition that this Bhadrabahusvāmin was the last Gaṇadhara who possessed a thorough knowledge of the fourteen *pūrvas*. There can be no wonder, therefore, if those eight *mahānimittas* were extracts from the fourteen *pūrvas* of the Jainas. Dr. B. M. Barua in his monograph on the Ājivika conclusively shows that Makkhali Gosāla, the founder of Ājivikism was an elder contemporary of Mahāvīra and the latter passed six years of his earlier religious career with him. It is quite clear therefore that those works, *viz.*, the *pūrvas*, the extracts of which were accepted by Makkhali Gosāla as forming the Ājivika canon, cannot but be very ancient.

(3) We must, furthermore, take into consideration as Dr. Leumann points out, that the old accounts on the rise of the Jaina schisms clearly mention only the *pūrvas* and not the aṅgas. This is quite a remarkable fact and unmistakably shows the precedence of these *pūrvas* over the aṅgas.

The tradition therefore appears to be substantially correct in relegating these *pūrvas* to an earlier date. But the inclusion of these *pūrvas* in the twelfth Aṅga called the *Dṛiṣṭivāda* led Weber to disbelieve in their antiquity. We have however tried to show elsewhere that the *pūrvas* came to be associated with the twelfth aṅga later on. This association can in no way help us in assigning to the *pūrvas* a late origin.

§ 4. *The causes of their disappearance.* All the traditions agree in saying that the fourteen *pūrvas* which Mahāvira is said to have transmitted to all his disciples were preserved intact for six generations longer after Sudharman and Jambusvāmin who succeeded to the patriarchate one after another after the master's demise. We are therefore to understand

that none of these fourteen *pūrvas* were lost during the terms of the next six patriarchs and all had existed till the time of Prabhava Sayyambhava, Yasobhadra, Sambhutivijaya, Bhadrabahu and Sthulabhadra. They are always called *cauddasa-puvvi* or *caturdasapurvadhārin*. With Sthulabhadra, however, as already pointed out, the knowledge of the 4 last *pūrvas* (11—14) completely ceased. The next seven patriarchs are known as *dasapuvvi*, *i.e.*, those who possessed the knowledge of ten *pūrvas* only. Vajrasvāmin was the last of the *dasapurvis*. From his time onwards the knowledge of the *pūrvas* decreased gradually. In the Anuyogadvāratatva and also in the Bhagavati we find mention also of *navapurvi*. By a similar process the remaining *pūrvas* were gradually lost and in the time of Devardhiganin in 980 A. V. (5th century A. D.), only one pūrva is said to have remained which also was lost within a few years more. In other words, the loss of all the fourteen pūrvas was complete by 100 A. D., *i. e.*, towards the last quarter of the 5th century A. D.

Mahagiri, Suhastin, Susthita, Indradinna, Sudinna, Simhagiri, and Vajrasvāmin.

The most significant point regarding the loss of the pūrvas appear to be this that the knowledge of them began to decrease from the time of Sthulabhadra onwards. The decay of these pūrvas therefore seems to have been coeval with the collection and systematization of the eleven *aṅgas* which took place through the intervention of Sthulabhadra in the Council of Pataliputra. This was surely not an accident and signifies, in the opinion of Jacobi, the suppression of an earlier canon by a new one. Now what it is that necessitated the abolition of this old canon and the construction of a new one. The *pūrvas* appear to Jacobi to have dealt chiefly with the *driṣṭis* or the philosophical opinions of the Jains and other sects. "It may be thence inferred," says he, "that the *pūrvas* related controversies held between Mahāvīra and rival teachers. The title *pravāda* which is added to the

name of each *pūrva* seems to affirm this view. Mahāvīra again was a reformer and as such it is very likely that he should vigorously have combated the opinions of his opponents and defended those he had accepted or improved. Now if the discourses of Mahāvīra were chiefly controversies they must have lost their interest when the opponents of Mahāvīra had died and the sects headed by them became extinct. The want of a canon suiting the condition of the community must have made itself felt and it led to the composition of a new canon and the neglect of the old one."

But there are facts which lead us to believe otherwise. We have indicated before that the term *Dṛiṣṭivāda* came to be connected with the *pūrvas* afterwards and as such it cannot give us any clue to the nature of the contents of the *pūrvas*. Then again the word *pravāda* which in Jacobi's opinion affirms his view that the pūrvas contained controversies held by Mahāvīra with his opponents does not occur with the names of all the pūrvas but of eight only (Nos. 3-10). The word again appear to convey the simple sense of "discourse." Besides the short description of the contents of each *pūrva* does not help us with any indication as to whether there was anything controversial in it. On the loss of the fourteen *pūrvas*, therefore, we can still speak a word or two.

The tradition that they were completely lost by the 10th century after Mahāvīra is not to be taken we think in its literal sense. The correct interpretation appears to be that they lost their independent entity by that time. In the process of systematisation and supplementation which took place in the history of the Jaina canonical literature after the *pūrvas* were gradually assimilated and by the 10th century of the Vira this assimilation was complete. The following facts confirm this view—

(1) One of the traditions noticed by Weber, maintains that Mahāvīra first recited to his gaṇadharas the contents of the *pūrvas* whereupon *they in their turn brought the contents*

of these into the form of the aṅgas, āchāras, etc. This goes to prove that the contents of the pūrvas were not lost for ever but were incorporated into the present canonical literature.

(2) The second *pūrva, viz.*, the agrāyaniya, we are told, expounded the chief things in or the essence of the eleven aṅgas. This, therefore, indirectly supports the above tradition. The contents of all the eleven aṅgas probably existed in a crude form in the *pūrvas* out of which they developed later on.

(3) Bhadrabāhu, who was the last to know all the *pūrvas* perfectly is said to have based his Kalpasūtra on the ninth *pūrva, i. e.*, Pratyākhyānapravāda. Another tradition goes a step further and states that the present Kalpasūtra was not merely based on the said pūrva but formed the 8th chapter of it.

From all these it appears that the pūrvas were not completely lost as has been believed hitherto but were gradually assimilated to the present canonical literature of the Jainas in course of its development.

ASPECTS OF BENGALI SOCIETY

FROM OLD BENGALI LITERATURE

BY

TOMONASHCHANDRA DASGUPTA, M.A.

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INTRODUCTION

Considerable materials, regarding the social, political and religious history of Bengal lie strewn over the pages of old Bengali literature. The administrative history of Bengal during the Mahomedan rule as also of the period immediately preceding it, gleaned from the accounts of the Mahomedan historians and copper-plate inscriptions, does not give us sufficient information about the social life of Bengal. The accounts to be found in these records are, moreover, often full of high-flown panegyrics, bestowed lavishly by the writers on their patrons, the Rajas, whose cause they avowedly espoused. The court-parasites have oftentimes given accounts of things which may, at best, be taken as half-truths, and unfortunately the historian of Indian life and culture has, at the present day, to depend mainly on these materials, which are quite inadequate for historical purposes.

In the old Vernacular literature, the reader is carried through a jungle of legends, mythical stories and crude rustic fiction which are apparently far from being reliable materials for history.

But a closer observation reveals that this literature of legends and imaginary stories often bears the throbbings of life, and in this crude performance one can feel the pulse of the people,—their ideas and inspirations, their manners and customs, sometimes with a greater accuracy than in the state-records or inscriptions. Underlying these legends there is life with all its lights and shades. In these accounts the eyes of a true historian will discover precious materials which, supplemented by official records, the great value of which cannot be ignored, will enable him to reconstruct the social and political history of the country on the solid basis of a true scholarly research.

In the works like the Dharmamangal, the Chandimangal, the Manasāmangal, the Sunya Purān, the Gorakshavijay, the Sivāyanas and the Mymensingh Ballads,—the poets sometimes derive the subjects of their treatment from actual facts, and though much of their accounts

may be found tinged with poetic colourings, there cannot be any interested advocacy for a political cause, clouding their vision. The historical plays of Shakespeare give us far better glimpses into the social and political epochs of the English people than the voluminous accounts on the subject, left by the historians.

This is more or less true in regard to our Vernacular poems also. The difficulty that confronts us in the field is the task of separating facts from fiction. All that is wanted, therefore, is a historian's critical judgment capable of distinguishing truth from fiction and of arriving at a scientific conclusion.

It is not possible, in many cases, to assign exact dates for want of materials, as also for the remoteness of the period to which the incidents relate.

But time may come when all available materials might be arranged in a chronological order; but it would now be quite premature to make any attempt in this direction.

Periods may now be generally considered in two main divisions, namely, Pre-Mahomedan and Mahomedan. The poets, though most of them belonged to the latter period, sometimes left accounts of facts which may be distinctly traced to the Hindu Epoch. The works treated of, in the following pages, roughly cover a few centuries—possibly those between the 10th and the 16th centuries. Of this period the last two centuries were most prolific in producing a large mass of literary materials.

In dealing with the social and other problems of Bengali life, materials for which have been mainly gathered from old Bengali literature, attempt has been made to follow the above principle in respect of chronology.

The subject matter has been divided into several chapters, as shown below:

(1) Manners and Customs.
(2) Ship-Building and Commerce.
(3) Costumes.
(4) Ornaments.
(5) Culinary Art.
(6) Pastimes.
(7) Warfare.
(8) War-Music.
(9) Hindu-Moslem Unity.
(10) Architecture.
(11) Religion.
(12) Education.
(13) Castes and Professions.
(14) Agriculture.
(15) Economic Condition.

many, each of which in view of the special importance attaching to it, deserves elaborate treatment.

The manners and customs prevailing in the country during the period under review were most peculiar, disclosing an admixture of foreign elements in them. Examples are not rare to show the prevalence of many non-Hindu manners and customs in the country in bygone ages. Thus, when a daughter was given in marriage to a young man, her sister or sisters were also given to him as dowry together with a number of maid-servants. This we find in the case of Adunā and Paduna, the two daughters of a certain Raja, in the Mānik Chandra Rājār Gan, evidently composed before the Mahomedan domination. Another custom, namely, that of trial by ordeal, was peculiar, and may be supposed to be an outcome of Buddhistic influences, though parallel cases may be found in the Rāmāyana and the Mahābhārata. This custom had a striking similarity with a similar practice prevalent among the Anglo-Saxons of England prior to the Norman conquest. The Maynāmati songs, the Chandikāvyas, the Dharma-mangal poems and the Manasāmangal poems are full of these examples of trials by ordeals.

The custom of keeping a written document (Jayapatra) from a husband, going abroad for a long period on trade purposes, by his wife under certain circumstances, was most peculiar. This was done to save the wife giving birth to a child during the absence of her husband (generally a merchant) from calumny. Dhanapati, the merchant of the Chandikāvya story, is said to have executed such a document in favour of his wife and we have reason to believe that it was held perfectly legal in the Law—Courts in those days. This throws a flood of light on ancient ways of life and points to an age when a wife was not under the complete subjugation of her husband, as in later days. The spirit of free love, free movements, and self-culture among women, as found in the recently discovered Mymensingh ballads, speak of an age quite different from the one that followed.

The keeping of trained dogs by the rich and giving them names show that they were once not regarded as untouchables. In the Maynāmati songs we learn that Raja Govindachandra kept trained

dogs, named them and made necessary arrangements for their comfort. The songs, composed before the advent of the Mahomedans into this country, refer to a period, when society was not influenced by orthodox Hinduism of later days.

That the merchants in the past enjoyed a status equal to that of the king is sufficiently illustrated in the Manasāmangal poems and the Chandikāvyas. Why and how they came to lose this exalted position require careful investigation. Bansidās, the celebrated poet of Manasāmangal, who flourished in the 16th century, made mention of passports being used by the merchants, duly signed and sealed by the King.

Bengal was once famous for her efficiency in the art of shipbuilding and her commercial activities established for her a high reputation worthy to be remembered. Besides, such foreign works as 'The Mahawanso' of Ceylon, wherein mention has been made of stupendous Bengali ships in which Prince Bijay and his companions arrived in Ceylon in the 6th century B.C., and other works of authority on Bengal's maritime activity similarly furnish authentic accounts of the subject, hitherto neglected by our countrymen. In the Manasāmangal poems and the Chandikāvyas we find animated descriptions of the commercial and maritime activities of the Bengali people during the Pre-Mahomedan period although the poets dealing with those subjects belonged to a subsequent age. These accounts refer to a period when Bengal enjoyed political independence and when her merchants crossed the seas on commercial enterprises unfettered by the trammels of social rules. The ships visited distant countries, such as Ceylon, Guzrat and Java and the old Bengali literature described incidentally the routes, the islands and their inhabitants, and various other things in connection with their voyages. The description, though otherwise exaggerated due to poetic excesses, is amazingly accurate in respect of the route taken by the vessels. With all these poetic extravagance and absurdities the mention of huge crabs and lobsters in the Madras waters, by the poets, is found to be true even to this day.

The mention of the Portuguese Pirate-ships (Armadas) and the once-imortant ports of Tamluk and Chicacole (Madras Presidency), which we come across so often in the pages of our old

literature, is a matter of common knowledge. The Bengali ships are stated as having doubled Cape Comorin and reached Pātan or Somnathpātan in Guzrat. The hugeness of ships and the picturesque shape of the prows representing various animals according to the traditional mode of ship-building (as mentioned in Juktikalpataru) are interesting indeed. The poets seem to have described facts, though not entirely free from poetic flourishes. The rites and beliefs in connection with sea-voyage and sea-going vessels curiously resemble those prevalent in the days of Greek civilization, in Europe.

The crew of a ship consisted of carpenters, pilots, and naval forces. There was a day when carpenters filled the places of modern Engineers both in the East and the West, when these ships were principally made of wood and plied with the help of sails and oars.

The overseas trade, once carried on by the people of Bengal, was really extensive and the merchandise in which they generally dealt consisted mainly of agricultural products which formed the chief resources of the country. Among other items of export, glass deserves special mention.

The fact that Bengal once used to manufacture glass can be substantiated by reference to the pages of the old Bengali literature as also to the statement made in the Periplus.

The grains, earthen and wooden wares, and cloths (specially of very fine textures) were exported in exchange for spices, horses, and others. Spices were perhaps brought from the East Indies.

Now, so far as costume is concerned, there has not been any considerable change. The dress worn by the people of this country in ages long gone by, was very much the same as it is in the present day. Inspite of this fact it is not very difficult to mark some peculiarities which were current in the Hindu period and were even in existence during a considerable part of the Mahomedan rule. We have it, on the authority of the Manasāmangal by Bansidās, a book written in the 16th century A.D., that people used to wear the cloth almost in the same fashion as their upcountry brethren do it now. In the by-gone days of the Hindu rule the warriors perhaps wore armour, indications of which may be found in the Dharmamangal poems. No doubt the practice lingered, to some extent,

even during the Mahomedan period. Wearing of velvet shoes by the warriors and the silver shoes by the rich as described by the poets of the Dharma songs and the Manasāmangal poems deserves our notice. In the days of old Hindu rule the fashion was perhaps to wear chāddar, save and except on special occasions. The more general practice of wearing shirts and coats seems to have come into existence with the advent of Mahomedans in this country.

In the Manasāmangal poems we find the use of turban (Pāgri) confined only to the well-to-do section of the community.

It is in the costume of ladies that we mark a more remarkable change. They used sāḍis of fine fabric which are now no longer in use. Among these may be mentioned Meghnāl, Meghdumbur, Gangājali and other sāḍis. The ladies wore an underwear resembling the petticoat of the present day and a kind of belt known as the Nibibandha.[1] We find the underwear mentioned in the Gobindalilāmrita of Jadunandan Das. Sometimes the ladies of aristocratic families wore *Ghāgrā* (gowns), *Oḍnā* (scarfs) and *Kānchuli* (corsets) probably after the Mahomedan fashion. But Kānchuli (corset) had the antiquity of the days of the Vedic culture. Among the toilet requisites *Dhup* (incense) was invariably used to scent the hair. *Amloki* or myrobalan was generally used in place of soap, though the use of the latter was not wholly unknown as we find in the Kāmasāstra of Bātsyāyana the mention of Phenaka (a kind of soap). The art of decorating the face with paints was practised with great care. It was known as Patra-Rachanā (*lit.* leaf-painting) and somewhat commonly described as *Alakā* and *Tilakā*.

The Tilaka marks had a great utility in indicating the caste, to which a particular man belonged.

Some changes are noticeable in respect of ornaments. Such ornaments as Keyur, Angada and Valaya of various types have come down to us from a remote past and we find mention of them in the Rāmāyana and the Mahābhārata. Many of these ornaments were worn by both the sexes from the forgotten past down to a considerable part of the Mahomedan period. Of the very old ornaments Sāteswari Hār and Hirāmangal Kaḍi (for the ears)

[1] The belt used by men was known as the Patukā.

attract our attention. Magarkhāḍu and Mallatoḍar are some of the old items of ornaments. Of these Mallatoḍar was perhaps introduced in the country during the days of the Mahomedan rule. The name seems to suggest that the ornament might have derived the name from Todarmal the great finance minister of Akbar who stayed in Bengal for a short period. The Mallas or wrestlers favoured this ornament which they wore on their feet when going out to exhibit the feats of arms. 'Khāḍu' and Tāḍ, a kind of armlet, once constituted articles of gift for presentation purposes. Beshar was another kind of old ornament used to adorn the nose, being still worn in some parts of our country.

Some of these ornaments are still favoured by women in the countryside, though the glamour of modern civilization has completely revolutionised the ancient forms and usages in the bigger centres of metropolitan life. Jadunandan Das, in his Bengali version of Krisnadās Kavirāja's Sanskrit work Gobindalilāmrita, gives an account of the old ornaments and ladies' costumes, while describing the toilet of Rādhā.

Culinary art attained a high degree of perfection at the hands of the Bengali women from time immemorial. Knowledge of the details of cooking was considered essential for women in general and efficiency in this art was looked upon as an attainment even by ladies of high rank in our society. Our poets often took pride in depicting female characters, possessing, among other finer qualities, a knowledge of this special art. Thus Khullanā, Sanakā and a host of other ladies whom we find to have excelled in this art remind us of the typical Greek community of Homeric days.

The Hindus always refrained from taking meals cooked by strangers in support of which hard-and-fast rules were framed to suit their own interpretation of 'āchāra' or purity.

A newly married wife was required to cook dainties and serve them with her own hands to the kinsmen and relatives, assembled to partake of the nuptial feast.

Great stress was always laid upon the selection of the various ite ms of food from considerations of health, and elaborate rules were framed accordingly.

The very old sayings of Dāk and Khanā show the particular attention paid to the selection of food. Even to-day Bengali

almanacs show to what excesses restrictions in matters of food were carried. Although, to a casual observer, these rules may appear absurd and meaningless, they are doubtless based on solid hygienic principle.

More attention was given to the preparations of sweets, vegetables and fish curries than that of meat. Special preparations of sweets, called Ālfā and Indramithā are now completely forgotten in our country though they are so often spoken of by old Bengali poets. Sitāmiśrī and Olālāndu also are becoming forgotten.

Among vegetable dishes Dugdhakusumbhā was once very famous. Many of the old varieties of fish and meat curries are still prepared in the country.

It seems that before the advent of the Mahomedans in India the people used to enjoy a free life unfettered by the trammels of increasingly numerous social and religious institutions. The women took part in physical exercises both indoor and outdoor.[1] This may seem strange now-a-days but nevertheless it was a fact based on literary and historical evidence. Examples of women possessing physical strength as in ancient Sparta, may be seen in old Bengali works such as the Dharmamangal poems. The Amazonian princess Mallikā of our folk literature is an example on this point. The young always took great interest in physical culture. And demonstration of physical feats were often held and enjoyed by the people very much in the same way as the boxing tournaments in Western countries.

The wrestling of Prince Lāusen with his wicked adversary shows the modes generally adopted in a contest. In the Maynāmati songs, Mymensingh ballads and the Manasāmangal poems, we learn that hawking or falconry and pigeon-rearing formed some of the favourite pastimes in the days long gone by. Another game once very popular was the celebrated 'geru' play. In a pada of Chandidās we come across the following: 'ফুলের গেরুয়া লুফিয়া ধরয়ে সঘনে দেখায় পাশ.' This geru or ball-playing still obtains in some parts of West-Bengal. But the more popular among the outdoor games was the aristocratic 'Chaugān' corresponding to polo, which was current during the

[1] See the Dharmamangal Poems, the Maynāmati Songs, and the stories of Pushpamālā and Mallikā.

Mahomedan rule. The game was a favourite one with the Emperor Akbar. The word 'Chaugān' is Persian, signifying play with a ball and a stick. It was played on horseback (see Encyclo. Britt.) and is known to have originated in Kashmir from which it travelled to different countries including Persia, Tibet, Manipur and Bengal, Bengal being directly indebted to Manipur for its introduction into this country. The description of Chaugān play in Ālāol's Padmāvat is interesting. With the loss of her political freedom, Bengal lost many of her indigenous games especially the outdoor ones and the ladies gradually ceased to take any interest in them.

Of the indoor games dice and chess found favour in the days of old as they do now. Even the women joined in these games. In the Maynāmati songs we learn of a peculiar game known as Duāpati which might be the same as or similar to chess.

The description of warfare, as given by our poets, refers to the Hindu period; but the accounts were written in the Mahomedan period and as such, could not be altogether free from Mahomedan influences. The twelve sub-lords attending a king was a time-honoured custom [1] The description of weapons too points to the same conclusion. The mushals, mudgars, shels, sools, etc., were as old as the days of the Rāmāyana and the Mahābhārata. An elaborate description of these weapons and their use may be found in the Dhanurveda, Arthasāstra, Nitiprakāsikā and some other works dealing with the subject.[2] Some of these weapons resemble a boomerang of Australia and a cross-bow of mediaeval Europe. The mention of swords therein leads us to suppose that Bengal might have manufactured the weapon. The chariots, the elephants, the cavalry and the infantry were known as the four arms. There was no caste-distinction among soldiers who were recruited from all sections of the community. Even foreigners were employed, of whom Telugus (the Madrasis) were prominent.

As for war-music it may be said with certainty that many of the old instruments are still used. Among these the varieties of drums

[1] See the Dharmamangal Poems of Ramchandra Banerjee.

[2] See Gustuv Opperts' 'The Weapons, Army Organisations, and Political Maxims of the Ancient Hindus' and Ramdas Sen's 'Bhārat-Rahasya.'

and pipes attract our attention. The horn is no longer to be found although it was extensively used.

After the conquest of Bengal by the Mahomedans, the two communities, *e.g.*, the Hindus and the Muslims lived together on cordial terms and the vexed question of Hindu-Moslem unity did not arise at all. Although the Mahomedan rulers at first grew unpopular with their Hindu subjects because of their foreign origin and iconoclastic activities, the situation changed as soon as the religious zeal abated with the march of time and the rulers began to direct their attention to administrative affairs. Of course ill-will existed in individual cases as it exists everywhere. But it was caused rather by personal jealousies than by any communal dissensions. When an autocrat abused his powers—be he a Hindu or a Mahomedan—ill-feelings are, as a matter of fact, sure to grow, and this does not require any serious communal difference to aggravate it.

No wonder therefore, that the two communities sometimes fell out under similar circumstances. Among other works, the Mymensingh Ballads and the Manasāmangal poems contain descriptions of racial animosities being provoked by similar causes.

Bengal was not much known in the past to the outside world for the excellence of her architectural work. According to the verdict of Western experts Bengal could not develop her architecture to any great extent on account of certain natural causes, for example, want of stone quarries and general unsuitability of the soil for solid stone-buildings. Among the supporters of this theory, Mr. Fergusson's views deserve special mention. Although this theory seems to be to some extent correct, it is nevertheless open to contention. Our old literature throws a side light on our past architecture the grandeur of which seems to be a wonder to us. No doubt, the poets are apt to exaggerate but what they said are generally true. In the Chandikāvya of Dwija Kamala Lochan and in many other works we find excellent descriptions of stone-buildings inlaid with gems of various colours.

The peculiarities of temple-construction, with jars fixed above the spires, were indeed remarkable. The extensive use of glass too is worthy of notice. The peculiarities of the building of cities and the construction of fortress had been mentioned in detail by various poets among whom we may specially mention the poet Bhāratchandra, the

great contemporary and court-poet of Raja Krishnachandra, who flourished in the first half of the 18th century. The Mahomedan architecture developed in no small degree in Bengal—which belonged to the Gauḍian. Distinct traces of this type of architecture in the works of Bhāratchandra and many others bearing Mahomedan stamp, are noticeable. The architectural ruins of Gauḍ, once the capital of the Mahomedans, draw the admiration of the world and Fergusson had incidentally to admit the abundance of stone-buildings in this province.

But the greatest credit of Bengal lies, according to this authority, in the introduction of curvilinear roofing in her buildings. Bengal is said to have taught the world the method of building this kind of roofs. With bamboo and thatch the Bengalees used to build curvilinear roofs in the past though these are now growing gradually scarce.

Even in stone and brick-built houses, these roofings were used. In old Gauḍ, ruins of such houses may still be seen. Another peculiarity in the building of houses was quite unique. It was the use of twelve doors in a room, known as Bāraduāri Ghar. In Gauḍ there still exist the ruins of a room with twelve doors. In the recently discovered Mymensingh ballads, Bāraduāri ghar has been mentioned in more than one place. Among other peculiar constructions the steel-house for Lakshindra in the Manasāmangal poems, the 'Tangighar' rooms built in a lake as is found in the Chandikāvya and Gorakshavijay and the underground prison-houses deserve special mention. The peculiar ditches or moats surrounding a fortified castle, the concentric circles of wards around a city, the Chowkbazar, and the Kotowali (the police station) were perhaps partly Mahomedan in origin. But the system of allotting different parts of a city to different castes and professions perhaps mainly originated with the Hindus and we read about them in old Sanskrit literature on architecture and town-planning.

So far as religion is concerned, the country showed a marked tendency, especially during the Mahomedan rule towards transition from Buddhism to the present-day Hinduism. If we trace the course of religion from the 10th down to the 11th century we see the Mahayana form of Buddhism holding the people in its sway. Although various other cults,—the Dharma cult, for example, counted

many adherents simultaneously, still it must be admitted that most of them had an element of Buddhism in them. Such was really the influence of Buddhism in those days, that the Dharma cult which possessed an extensive literature of its own comprising among others, the Sunya Puran, the Dharma-mangal poems and the Mayrāmati songs, is supposed by many as being an offshoot of Buddhism. The quarrels between the rival cults, *e.g.*, between the Sun and the Dharma cults, fill up some forgotten pages of our history. The Sun-cult is still traceable in the tenets of Grahāchāryyas and the Bratakathās (*viz.*, of Iturāl). Although some jealous Hindu Rajas of the Sen dynasty did much to revive the Pauranik Hinduism as it exists to-day, Buddhism was still there in some form or other among the masses. Inspite of the degeneration of its old ideals, the legacy of moral sentiment of Buddhism was not altogether lost to the masses. The Bratakathās and the Rupakathā of Mālanchamālā bear evidence of this fact. With the advent of the Mahomedans Buddhism finally lost its lingering hold upon the people, and out of its ruins grew up the present form of Hinduism, revived and remodelled by the zealous Brahmin reformers who particularly emphasised upon the observance of purity in social practices, or Āchāra, as it was called. evidently with a view to counteracting the evils, arising out of contact with alien people, people professing a different religion. Perhaps it was Vaisnavism that sounded the death-knell of Buddhism in this country having assimilated some of its best features.

Though Buddhism gradually declined in this country we cannot forget its great merits. The theory of cosmogony, it is to be observed, as expounded in the Sunya Purān of the Dharma cult, bore resemblance to the idea of creation propounded in the Rigveda.

The idea of action [1] once again exercised a more powerful influence over the minds of the people than that of complete surrender in everything to gods, fostered by the prevailing cult of devotion which became subsequently the guiding factor in the life of the people of this country.

[1] For example, we may mention the characters of Lāusen, Kaludom, Lakhā, Ranjāvati, Maynāmati and a host of others to be found in the Buddhistic literature, such as the Dharmamangal poems and the Maynāmati songs.

In the Maynāmati songs we find the son putting his own mother into boiling oil. This is evidently an un-Hindu sentiment and every Hindu will feel abhorrence at such an instance of monstrously unfilial conduct. This we trace to the degenerate Mahāyān form of Buddhism when the theory of action exercised its sway over the minds of the people. The belief that mystic rites and mantras could work wonders may be traced not only in almost every page of the literature of the Dharma-cult but also in the literature of the Hindu religion, as illustrated by the legends of the sages, *e.g.*, Durbāsā, Biswāmitra and Bhrigu. Throwing one into boiling oil had also its parallel in the story of Sudhannā of the Mahābhārata. Karna's sacrifice of his son Brisaketu to satisfy a Brahmin guest in the familiar story of the Mahābhārata has its parallel in the Budhistic story of Luichandra.

All these tend to show that perhaps the form of Hinduism, then prevalent, was considerably influenced by the Buddhistic ideas and beliefs as a result of which the Bengali recensions of the Mahābhārata and the Rāmāyana are specially intermingled with such grotesque narratives. The Agni Parikshā (or fire-ordeal) of Sita has its parallel in the stories of Behulā and Khullanā of the Manasā-mangal poems, and the Chandikāvyas which are apparently imbued with the Buddhistic ideas. The Tapasyā or self-mortification of Rāvana of the Rāmāyana story corresponds to the self-mortification of Lāusen and Ranjāvati of the Dharma songs.

In point of education it may be said that it was never neglected in the Pre-Mahomedan days. There were regular schools for imparting education in the Primary, Secondary and the Higher or Collegiate stages. Centres of higher education are still well known as the Tols. It is most peculiar that caste was no bar to education. In the old Chandikāvya story Sreemanta, though a *Bāniā* by caste, received the same kind of education with the Brahmin boys. The Sāradāmangal by Dayārām and the Mymensingh ballads describe vividly the system of education obtaining in old days.

What strikes us most is the attention given to female education. Girls were equally educated with the boys, sometimes reading in the

same school under the same *guru*. The story of Vidyā-Sundar in which Princess Vidyā challenged all the princes of the world for a literary contest with her, was not altogether a myth. Literacy prevailed among the lowest, as well as, the highest classes. Thus we find Fullarā, the fowler-woman, quoting the Sāstras, Khullanā, the *Bāniā* lady, recognising her husband's handwriting, a Brahmin woman in her connection forging the letter, and a minister's daughter romantically changing a letter in a manner which helped to bring about her union in marriage with a youngman for whom she conceived a liking. Even high class public women were also credited with the capacity for transacting documentary business as we learn from the Maynāmati songs. Another public woman of the Dharmamangal poems put knotty questions, shewing great erudition, to a prince, for solution. Besides having literary education, the women of older days were expert in the fine arts. The decorative excellence of Surikshā in the Dharmamangal poems and of many other women in embroidery and other works astound us in no small degree. There are also numerous examples of excellent Ālipanā drawings in the Mymensingh ballads and other works. Dancing was so much cultivated in the Pre-Islamic days that Behulā of the Manasāmangal poems earned the epithet of "Dancing Behulā" and the story says that this qualification of Behulā was instrumental even in restoring her dead husband to life. The stories of Mallikā, Kaliṅgā, Lakhā and a host of others show conclusively to what extent the women of our land gave attention to physical culture, like the Spartan women of ancient Greece. These stories prove the spirit of the times and the pictures were, perhaps, drawn from the exact state of society in a particular period of her life.

About the various castes it cannot be denied that there was much peculiarity in the bygone days due probably to the prevalence of Buddhism in the land. In the Sunya Purān and the Dharmamangal poems, we find such low castes as the Hāḍis and the Doms receiving even the laudatory homage of the staunchest Brahmins and occupying the foremost position in society. The sun-worshipping Grahāchāryyas and also the Bāniās once occupied a better status than they hold now. How these castes came to lose their position and the Kanouji Brahmins came to occupy the fore-front in the Hindu society

is, inspite of meagre data, an interesting study. Different parts of a city were allotted to different castes. Besides, we see from the times of Raghunandan the stereotyped form of the present-day Hindu society with the Brahmins as its undisputed head, has held its ground. But previously, Buddhism, Nāthism, and some other cults, and in later days, Vaisnavism,—strove to oppose it with all their strength. If we read the Buddhistic Jātak stories and some other works it seems to us that the reason for the superior position of some inferior castes of the present-day was that, that caste was in the making at the life-time of Buddha, as Prof. Rhys Davids would say. The present form dates with Raghunandan (15th century) but the attempt for stereotyped caste-system and Brahminic supremacy may be traced even from the days of the Mahābhārata when the Kshatriyas disputed the position of the Brahmins with great force. In Bengal it was the Sen Rajas who became the staunch upholders of Brahminic supremacy and established gradations in society from the standpoint of merit alone which laterly turned to be the hereditary privilege of the descendants of the original holders of those special recognition. The system has since been known as the *kulinism*, and perhaps has wrought more mischief than benefit to society, since its first inception.

In respect of Agriculture, the Bengali peasants attained a high degree of perfection, in a very remote period of our history (9th-10th century). The sayings of Dāk and Khanā,—specially the latter, furnish a store-house of agricultural wisdom—the heritage of the Bengal peasantry. There is no doubt that the cultivators committed to memory most of these aphorisms and followed the principles contained in them in their agricultural operations with the utmost precision. It is a peculiar feature that astrology formed an important element in these aphorisms and the technicalities employed in them must have been highly useful to the peasant-folk from the practical point of view. It may safely be said that the cultivators could appreciate essential principles of the science of astrology, disseminated amongst the masses, by means of couplets which could be easily understood. The weather fore cast in the aphorisms of Khanā is so definite that the cultivators followed it with great advantage. Specially interesting are the agricultural superstitions (in respect of sowing seeds and plucking fruits) by

which our illiterate peasants were guided. Inspite of much that can be said against superstitions in general, we must admit that some of them were really beneficial to agriculture as they are evidently the outcome of agricultural wisdom based on the practical experience of our race in the matter, from an early age.

As regards the economic condition of the people, it may be said without any hesitation that during the Pre-Mahomedan period as also to some extent in the Mahomedan, they enjoyed considerable prosperity though there were occasional reverses, due chiefly to the misrule of individual despots. The Maynāmati songs, among others, seem to confirm this view, though the picture is clearly overdrawn. Although the common people led rather a plain and simple life during Hindu rule, to the rich, naturally enough, articles of luxury were not altogether unknown. Thus various arts and industries—such as those of weaving, embroidery, painting and others—flourished in the country. Cowries were then the prevailing medium of exchange though barter was frequently resorted to, as we read in the old Bengali literature.

N B. The greater part of the introduction appeared in the June number (1926) of the Modern Review.

Aspects of Bengali Society

from

Old Bengali Literature

CHAPTER I

MANNERS AND CUSTOMS

Ordeals.—Before we dwell upon the social customs prevalent in Bengal in the Hindu and the early Mahomedan periods, it would be well to begin with a description of the tests applied in the early days of the history of Bengal for ascertaining the character of criminals and suspected persons. It is needless for us to attempt at tracing the origin of these tests or ordeals. Some of these were extremely crude and might have come down from a remote pre-historic period, others no doubt bear trace of a Tibeto-Burman origin and the rest might have their origin in the degenerate forms of Tāntric Buddhism. In the Maynāmati songs we find a description of Rājā Govindachandra testing the integrity of his own mother by throwing her into a vat containing boiling oil which is evidently a monstrous exaggeration. Inspite, however, of all the hyperbolic display of poetic fiction, the poets of Manasā-Mangal and Chaṇḍikāvya distinctly indicate some of the tests which were applied for ascertaining the guilt of suspects in the Hindu periods. We find numerous forms of these tests suggested as alternative ordeals for Behulā and Khullanā. The Aṣṭaparīkṣā or the eight ordeals so often described by our poets consisted of piety, fire, water, seat, ring, serpent, iron and balance ordeals. There were three more, namely, the hot iron, wax-house and iron ordeals. These ordeals have something in common with those prevalent in Europe in the contemporary period. Trial with hot iron was often resorted to in England in the pre-Norman period and walking blind-fold over red-hot plough-shares, plunging one's arms into the boiling water and grasping red-hot iron, etc., were also some

of the English ordeals[1] corresponding to Bengali ones.[2] The ordeals which were intended for invoking divine help rather than appealing to human agency are still resorted to in this country and are now known as 'Jalpaḍā'—a kind of water ordeal 'Chāulpaḍā'—rice ordeal, 'Nalchālā'—Reed ordeal, 'Bāṭichālā'—cup ordeal, etc. In Jalpaḍā the culprit is to drink water charmed with Mantras, the effect of which is believed to make him vomit blood. Similarly in Chāulpaḍā the culprit is to chew rice under certain condition which is believed to produce some effect indicative of his guilt. In the last two ordeals, the reed and the cup, when charmed, lead the person who touched them, to the culprit or the spot of the perpetration of the guilt.

Marriage and dowry.—There was a curious custom of giving away a younger sister of the bride to the bridegroom as a part of the dowry In Manikchandrarājār Gān, composed sometime between

[1] The following forms of ordeal were known as the **Aṣṭaparīkṣā** :—

(*a*) Dharmādharmaparīkṣā or piety ordeal. Here a person had to thrust his hand into a big jar and pick out a ring from it at once without knowing where it lay.

(*b*) Agni parīkṣā or fire ordeal. Here one was to walk seven times over a furnace covering oneself with cotton.

(*c*) Jala Parīkṣā or water ordeal Here one was to be thrown into water bound hand and foot.

(*d*) Āsana Parīkṣā or seat ordeal. Here one was to remain suspended in the air without any support

(*e*) Anguri Parīkṣā or ring ordeal. Here one was to pick up a ring from a jar full of boiling ghee.

(*f*) Sarpa Parīkṣā or serpent ordeal. It is traditionally believed that some of the most venomous snakes have gems on their hood The victim was to seize one from the hood of a snake without being stung.

(*g*) Lauha Parīkṣā or iron ordeal On was to handle red-hot iron.

(*h*) Tulā Parīkṣā or balance ordeal. Here one weighed in a balance was required to be as light as a particular piece of gold. See Bansidās's Manasāmangal, p. 651 Two new ordeals mentioned in the Chaṇḍikāvya by Mukundaram (pp. 181-83), *viz.*, hot iron and wax ordeals. In the former case a piece of red-hot iron was to be carried by the victim who was made to walk round a circle seven times with it In the latter case one used to be thrown into a wax-house which afterwards used to be set on fire The cooking of iron grain till they become soft and edible is mentioned in the Manasāmangal by Bansidās (p. 519). The system of trial by means of ordeals is described by Hiuntsang who visited India in the 7th century (see V. Smith's Early History of India, 342).

[1] See the Groundwork of British History by G. F. Warner.

[2] Asiatic Researches Vol. I See also the article ভারতের প্রাচীন বিচার পদ্ধতি by Surendranath Ghosh, Pravasi Srāvan 1330-B8,

the 11th and the 12th centuries we find Rājā Govinda Chandra marrying Adunā, the elder daughter of Rājā Harischandra of Sābhār, and receiving Padunā, his younger daughter as dowry, who however, for all intents and purposes became his wife.[1] When marrying, the Rājā received a hundred maids, in addition, to look after his household.

Marriages were held as a fitting occasion, by the well-to-do sections of the community such as the Banias, for the display of wealth and pomp, and may be found in the description of the marriage ceremony of Lakṣmīndra, son of Chānd Sadāgar, in the Manasāmangal poems.

"Fourteen hundred high-born gentlemen of the Baniā caste accompanied the bridal party; three hundred bards followed, singing songs composed specially for the occasion. A large number of gardeners, barbers, weavers and numerous concert parties, and seven thousand men in charge of fire-works advanced towards Nichhaninagar. Seven hundred and seventy litters, made of gold and silver, were in the procession. Chānd Sadāgar, surrounded by his friends and relations, and seated on an elephant with richest trappings and with a carpet hāudā on, fringed with diamond pendants and pearls, followed the party, flanked by hundreds of torch-bearers. In the middle of the procession, Lakṣmīndra, who now looked transcendently beautiful, came along, magnificently mounted on a noble steed. He wore a crown on his head, studded with precious stones and round his neck were garlands of fresh flowers and a necklace of pearls....."[2]

[1] See Mānikchandra Rājār Gān and 'Gopichandrer Gān.' Babu Nalinikānta Bhattasali refers to the practice of giving away the maid attendants of a girl of respectable family as part of the dowry to the bridegroom at the time of marriage as being still prevalent in the district of Jalpaiguri. See p. 9, Bhattasali's edition of Maynamati songs Professor Jogeschandra Ray says that the practice prevailing in the Rājā's palace in Orissa is to give away the maid attendants of the bride in dowry on the occasion of a marriage, *Prativā*, *Bhādra*, 1328 B.S. Compare the reference to Nityānada's marriage, in 'Nityānanda-Vamsa-Vistār' (p. 12). But the custom in many cases is to give away sisters as part of a dowry. The similarity in the two names, Adunā and Padunā and the fact that on Govindachandra's desertion of the palace the other wives of the Rājā went to the harem of Khetu, his foster-brother, Adunā and Padunā remaining true to the ascetic prince, seemed to indicate that Padunā who was given away to Govindachandra along with his wife Adunā, was her sister and did not hold an inferior position

[2] See Manasāmangal poems of Bijay Gupta, Bansi Das, Ksemananda, etc., and Behulā, the Indian Pilgrim's Progress, by K. C. Sen and J W. Petavel, pp. 25-26.

The system of receiving dowry was also in vogue in the past with this difference that the bride's side, and not the bridegroom's side, as is the case now-a-days, was the recipient. But it still remains the same with the lower classes (*e. g*, the Māthiāls). The songs of the sun-god are full of pathos expressing sentiments of a girl whose father having received the Pan before an assembly was under the legal and moral obligations to allow her to be taken away by her husband at a tender age when she naturally longed for the society of her parents. The pathetic outbursts of feelings on such occasions give a true and unvarnished picture of a particular aspect of our society.[1]

Owing to the marriage of girls before adolescence, parents had often to deplore untimely widowhood of their daughters—the saddest calamity in the life of married girls. Widow-remarriage was not allowed in the upper classes of the Hindu society. Besides widows were not allowed to participate in social functions such as marriage, as their appearance was considered inauspicious. The lot of these girls became harder when, with the loss of their husbands, they gradually found themselves deprived of almost all the privileges enjoyed by a woman and put as it were under a social ban, requiring to pass their lives in austerities, attended with fasting, vigil and numerous other hardships. So, it is not difficult to fathom the feelings of a girl-widow's parents. In their affection the parents of the unfortunate widows would sometimes allow them to use Fāg (red powder), gold bracelets and Pāṭṣāḍi (a kind of cloth) in substitution for Sindur (vermilion), Śānkhā (shell-bracelets) and Khuān (cloth) [2] which only

[1] See the songs of the *Sun-god*:

* * * *

"ভাঙ্গা নাও মাদারের বৈঠা ঢলকে ওঠে পাণী।
ধীরে ধীরে বাওরে মাঝি আমি মায়ের কাঁদন শুনি॥
ভাঙ্গা নাও মাদারের বৈঠা ঢলকে ওঠে পাণী।
ধীরে ধীরে বাওরে মাঝি ভাই ভাইয়ের কান্দন শুনি॥
ভাঙ্গা নাও মাদারের বৈঠা ঢলকে ওঠে পাণী।
ধীরে ধীরে বাওরে মাঝি ভাই বুইনের কাঁদন শুনি॥"

[2] See Manasāmangal by Ketakādas Kshemānanda,

"খনি বদলে দিব কাঁচা পাটের শাড়ী।
শঙ্খ বদলে দিব সুবর্ণের চুড়ি।
সিন্দুর বদলে দিব ফাউগের গুড়ি॥"

the wives with their husbands alive are privileged to wear. The practice of chewing betels by widows as mentioned elsewhere and the practice of using costumes and ornaments by them, as everybody knows, are now denounced in our society.

Jaypatra.—There was a time when commerce was in a flourishing condition in Bengal. The merchant community in those days held a position very little different from that of a prince. The merchant princes in those days sailed across the deep in an undaunted spirit and spread the name of Bengal far and wide as they stopped at various ports with ships laden with the products of this land. In course of these voyages years would sometimes elapse before they could re-embark for home. It happened not infrequently that a merchant had to go away when his wife was in an early stage of pregnancy, too early sometimes to be noticed. It was often found from experience that these wives, after the departure of their husbands, were subjected to popular suspicion and scandal. Our folklore is full of descriptions of the miseries of these wives.[1] In the story of Khullanā in Chandikāvya we find the merchant Dhanapati leaving for Singhal (Ceylon), under orders of the king, for trade-purposes with ships laden with merchandise. The merchant had to stay away from home for a very long time. Shortly after his departure, his wife Khullanā showed signs of conception and in due time gave birth to a son. Srimanta was the name given to this boy, who at an early age was sent to a Pāthsālā where his proficiency in all the subjects struck his Guru with astonishment. On one occasion, the Guru dropped a hint regarding his parentage by way of joke, which the lad deeply took to his heart. Thereupon he left home on board a ship in quest of his father and finally came back with Dhanapati, his father. Instances of this nature are numerous in our folk-literature. The opinion of the society often influenced the minds of the husbands of these hapless wives and they were persecuted even by their husbands. In these circumstances, a clear necessity demanded some sort of remedy with a view to affording protection to these women and safeguarding their fair name, and 'Jaypatra'[2] was the thing which gave them the remedy. This was a letter given to them by their husbands, on the eve of their departure

[1] See Thākurdādār-jhuli by D. Majumdar.

[2] See Kavikankan Mukundaram's Chandikāvya (Bangabasi ed.), p. 190.

for foreign countries, admitting if their wives were in an advanced state of pregnancy or even if there were any signs of the same. This document, which was to be signed by the husband and sealed in his presence, used to be kept by the wife for production when necessary, and was moreover, recognised by the court.

It is difficult to ascertain when this peculiar custom came to be introduced in Bengal, but that there was once an imperative necessity for such a measure is an unquestionable fact.

Charms.—The use of charms by women to exercise control over their husbands was very popular in the 15th and the 16th centuries in Bengal. It was specially resorted to by women who wanted to make their husbands subservient to their wishes as they were constantly in dread of losing all hold on them and of their co-wives exercising greater control on their husbands. There might have been some justification for this action on the part of the wives who, in many cases, were treated with neglect by their husbands. The drugging and charming perhaps came to our country from Kāmrup, one of the centres of the Tāntric cult. It is said in the countryside, even today, that the women of Kāmrup are capable of transforming a man into a lamb, to which unfortunate condition many strangers visiting that place are believed to have been reduced by unscrupulous women in the past. The belief in the theory that drugging or the simple utterance of Mantras can change a human being, like the characters in the stories told in the Arabian Nights, into a lower animal has been handed down to us from the days of the *Tāntric Mantrāyana Cult of Buddhism* which however has strange similarity with the Tāntric Sākta cult of Eastern India as we still find in the temple of Kāmākhyā (Kāmrup) in the Province of Assam. The similarity in the matter of the use of charms and drugs in Bengal with England seems apparent when we read Kavikankan's Chandikāvya and Shakespear's Macbeth, both of whom flourished in the 16th century, giving almost the same list of magic ingredients for the purpose of charming.[1] These formulas might have travelled to Europe from India at a very ancient time with the Indian Gypsies.

[1] See Kavikankan's Chandikāvya, pp. 136-37 :

"কচ্ছপের নখ আন কুম্ভীরের দাঁত।
কোটরের পেঁচা আন গোধিকার আঁত॥" ইত্যাদি

Freedom of Women.—Women enjoyed perhaps greater freedom before the Mahomedan invasion. In Maynāmati songs we find the mother Maynāmati going to meet her son Rājā Govindachandra when he was transacting business in his court. The dowager queen dressed herself in a white Śāḍi, took a stick (made of hintālwood) in her hand as she was old and chewed scented betels when proceeding to the court.[1] We also find in the same songs the queens supply the ingredients which were to serve the purpose of collyrium to paint the eyes with.

Aduṇā and Paduṇā went to the house of an ordinary Bāniā named Nimāi on some business [2] In the Dharmamangal songs which breathed Buddhistic sentiments, descriptions are found of women enjoying greater personal liberty in all the spheres of life including even the battle-field where they are found fighting side by side with their comrades of the opposite sex.[3] Examples of free love between men and women are abundant in the Mymensingh Ballads, proving without doubt that women of all grades of the society commanded a greater freedom than in the days that followed.

(Bring the nails of tortoise, teeth of crocodile, an owl from its hole and the biles of lizard, etc.)

See also Bansidas's Manasamangal, p. 503.

"কাকড়ার বাম পাও উন্দুরের পিত।
পেচার বাঁও চক্ষের কর কাজল রঞ্জিত ॥" ইত্যাদি

(Bring the left leg of a crab, the biles of a rat, and the left eye of an owl to supply the ingredients which was to serve the purpose of collyrium to paint the eyes with. See the Witches, broth in Macbeth which contains among many others things, eye of newt, adder's fork, maw of shark, wool of bat, scale of dragon, gall of goat, lizard's legs, and wings of owlet.

Cf. The incantations of women in the Vedic age, who were afraid of their co-wives. Rigveda X. 145 and X. 149. See also the Atharvaveda.

[1] See Maynāmati songs :

"ধবল বস্ত্র নিল ময়না পরিধান করিয়া।
হিন্তানের লাঠি নিল হস্তে করিয়া।
* * * *
পান খাইতে খাইতে বুড়ি ময়না যাচ্ছে চলিয়া।
* * * *
দরবারেতে যাইয়া ময়না রুপস্থিত হৈল ॥"

[2] See the Maynamati songs.

[3] See the Dharmamangal songs.

Garland and Sandal-paste (Mālāchandan).—In social gatherings it was the practice to offer garland and sandal-paste to the most respected guest present as a mark of honour. These could only be offered by the host himself and naturally most of the guests present in such a gathering jealously watched the conferring of the honour. Such gatherings often gave rise to bitterness amongst castemen who found it a suitable occasion to decry one another and tried to uphold the prestige of their respective families. In those days political activities were thrown into the background and social matters occupied the fore-front of public attention. A vivid description of Mālā-Chandan contest is to be found in Kavikankan Mukundarām's Chandikāvya, pp. 175-176.

Passport.—This document with the royal seal issued in former days was known as 'Berājpatra.' A kind of passport in the shape of 'Duri' or thread is found mentioned in the life of Mālādhar Basu of Kulingrām.[1] In the days of Chaitanya Dev, people intending to go to Puri on pilgrimage, had to pass through this village. The family of Rāmānanda to which Mālādhar Basu also belonged had the right of issuing passports to the pilgrims in the shape of a piece of thread. The pilgrim wore the thread on one of his arms.

Penance.—The penance 'Shale-Bhar'[2] (*i.e.*, self-torture by impalement) was prevalent in the pre-Mahomedan days. A devotee practising this penance was inspired with the belief that he would thereby win the choicest favours of the god he worshipped. In the Dharmamangal songs it is mentioned that the queen Ranjābati got a son (the famous Lāusen) by practising this penance.

Fondness for the dog.—This animal which is now regarded as untouchable by the orthodox Hindus and Mahomedans was pet at least in the twelfth century. In Manikchandra Rājār Gān it has been described that when Raja Govinda Chandra left his palace with

[1] See Chaitanya-Charitāmrita, p. 176 and Bangabhāsā-O-Sahitya, p. 152.

[2] See Dharmarājer-git by Narasingha Basu.

"চাপায়ে যখন আমি শালে দিলাম ভর।
সামুল্যার উপদেশ ধর্ম্ম দিলা বর॥"

(When I, Ranjāvati, got myself impaled at Chāpāi to get a son by the advice of the priestess Sāmulyā the god Dharma granted me the desired boon.)

ascetic's vow, his birds, cows, elephants and dogs were so much moved that they set up wailing for him. His favourite dogs which were no less than hundred and eighty in number[1] threw themselves at his feet as if much moved over his imminent departure. Again in the same place we find that 'these one hundred and eighty dogs were not only favoured in our homes, but received regular training if they happened to belong to rich masters."[2] Dogs in those days served also the purpose of keeping watch over a house. Hāji Siddhā, the Guru of Govindachandra, made arrangements for the maintenance of a pair of formidable dogs to prevent the Rājā from entering the houses of his subjects for alms, by way of testing the strength of asceticism of that monarch. These dogs were named 'Hāpān and Jhāpān.'[3] The naming of dogs was another peculiarity of those days. They often indicated the nature of the animal, for instance, Hāpān signifies quick-breathing and Jhāpān jumping.

All these prove the popularity of dogs in ancient Bengal suggesting a coincidence with the place of the animal in the present European society.

Likeness for Luxuriant hair.—In the Mahomedan period the Hindus used to keep their hair long, a custom inherited by them from their forefathers.[4] It is, however, interesting to trace the change of national taste in this direction from time immemorial to the present day. With the arrival of the Mahomedans in this

1 "নও বুড়ি কুত্তা কান্দে চরণত পড়িয়া"

Mānikchandra Rājār Gān.

2 "শিকারী খেলাইতে কান্দে নও বুড়ি কুকুর"

Ibid.

3 "হাপান ঝাপান হিলাল কুকুর"

Ibid.

4 See Manasā Mangal by Bijay Gupta (P. S. Gupta's ed.), p. 196.

"দীর্ঘভূজ লক্ষ্মীন্দর দীর্ঘ মাথার চুল"

(Lakshmindra possessing large arms had also long hair)

See also the Rāmāyana by Krittivas (Lankākāṇḍa),

"পলায় রামের সৈন্য নাহি বাধে চুল"

(The soldiers of Rāma fled so hastily that they could not find time to tie up their hair).

country, the test changed and our people began to imitate the ruling race. They began to cut the hair to a shorter length allowing it just to touch their shoulders and this fashion came to be known as ' Bābri.' Thus the art of hair-dressing, specially plaiting, received a partial check so far as it concerned men, the fair sex keeping up the old practice down to the present day. The Bābri also came into disfavour sometime after the advent of the Europeans in this land. The Europeans themselves were fond of keeping long plaited hair and using wigs in the 18th century. But it is not within our scope to trace how and when this fashion changed in England giving place to the practice now prevailing, bringing about, as it did, a corresponding change amongst Europeans in India. We may, with some degree of accuracy, assume that it was due to the Civil war of 1648 which was responsible for this change. At that time the Puritan anti-Royalists cropped their hair short to demonstrate their hatred against the cavaliers who used to keep long hair, a practice which won for them the special epithet of roundheads, a term by which they were latterly came to be known. The English and other European nations imitated the new fashion discarding the old practice. The Bengalis gradually grew accustomed to the fashion introduced by the ruling race. Therefore quite contrary to their tradition, the young generation of Bengal keep longer hair in front of their heads and in many cases the hair at the back is actually cut off exposing the skin, in imitation of the European fashion.

CHAPTER II

SHIP-BUILDING AND COMMERCE

In ancient Bengal ship-building reached a high degree of perfection and the sea-going vessels used to be actively engaged in promoting the prosperity of the country by conducting commercial intercourse with various places both within and outside India.

The wood required for the construction of ships was teak gāmbhāri, tamāl, piàl, kāṭhāl, etc. But it seems that the wood

of the fabled tree Manapaban was best for the purpose. In the earliest times, the word Manapaban implied the extreme speed of a vessel, compared with the flight of the mind and the wind, and we have a text in the Mahābhārata,' 'মনোমারুতগামিনীম্,'[1] to shew this. But latterly it seems that a certain species of wood was identified with Manapaban, the exact nature of which is not known.

In building a vessel the first work to be done was a ceremony known as 'Dārābindhā' or the thrusting of a gold nail (Sonārjal) to the keel (Dāṛā) with the help of a silver hammer (Hātur). It was done by the owner himself. After this ceremony, the actual work of construction was to begin. First a measurement of the vessel was taken. Then the keel was to be carefully constructed with which strong pieces of timber were joined with the help of iron nails. Next the 'Galui' (prow) was to be built. This finished construction of the hold of a vessel. The deck, the Pāṭātan (pieces of timber joined to the keel) and the shed were also made. After these, the construction of helm and rudders, and decoration work made the building of a ship complete.[2] It may be noted that the prow took the appearance of a peacock or a Śuka bird or some other fancy shape specified in the works on art and the ships were accordingly known as 'Mayurpankhi,' 'Śukapankhi,' etc. Mention of seven types of prows representing the shapes of a lion, a buffalo, a serpent, an elephant, a tiger and a bird is found in old Sanskrit works on ship-building, such as Juktikalpataru by King Bhoja.[3]

1 ততঃ প্রবাসিতো বিদ্বান্ বিদুরেণ নরস্তদা।
পার্থানাং দর্শয়ামাস মনোমারুতগামিনীম্ ॥
সর্ব্ববাতসহাং নাবং যন্ত্রযুক্তং পতাকিনীম্।
শিবে ভাগীরথীতীরে নরৈর্বিপ্রংসিভিঃ কৃতাম্ ॥
—মহাভারত, আদিপর্ব্ব।

[2] For the construction of vessels see also Chandidas' Srikrisna Kirtan (p. 140) edited by Basantaranjan Roy and published by the Bangiya Sāhitya Parishad.

[3] See also Visvakosh, Vol. X, p. 461. In ancient Europe also the prows of the vessels represented various models. See the figure of the old attic ship in the Dipylon Vase (British Museum) and Roman galleys in Trajan's column Rostrata. See the pictorial representation of the landing of Vijaya in Ceylon in Ajantā cave paintings (R. K. Mukherjee's—A History of Indian Shipping and Maritime Activity,

A vivid description of the construction of a vessel is found in the Manasāmangal by Bangsidas (D. Chakravarti's ed., p. 286). An idea of this is given below :—

The lord of Champaka (the merchant Chand) constructed some vessels for which he himself performed the ceremony of gold-nailing (Sonār-jal or Jalai). The length of the vessel was fixed at a thousand yards (more than half a mile, evidently an exaggeration). From the keel to the central deck the height was six cubits and a half (thirteen Tāl) which was designed to stabilize the equilibrium of a ship. The bamboo-poles required to set a ship in motion where the water was shallow were also measured with thread. More serious work, however, commenced with the construction of the hold of a ship. The wood ordinarily chosen for the purpose was known as 'Manapaban,' noted for imparting the swiftness of the wind or of a wish to the ship. Strong pieces of this timber were joined together with the help of iron nails. In this way the construction of the hold was completed. When it was finished the metallic sheets (piṭh-pāt) were fitted and the mat doors (jhāp) fixed up. Then 'Māthākāṣṭha,' or 'Galui' (prow) was made, decorated with flowers of gold and silver. The principal cabin was built, after the deck, composed of wooden planks, had been fitted up (Pāṭātan). This chief cabin (Rāighar) was beautifully decorated with rows of artificial flower-garlands. On the vessel the mast (Mālum wood) was duly fitted. The helm (Pātwāl) and its auxiliary piece of timber (Jhokābari) were not forgotten. When these had been finished, a nicely ornamented shed was built on the ship. It had rows of Chāmar (chowrie) and festoons of various types which made the vessel look pretty. Finally, the eyes of the figure on the prow of the ship were made with jewels resembling the moon. This completed the building of the ship.[1]

A similar description of ships as found in Kavikankan's Chaṇḍikāvya, pp. 221 222, Bangabasi edition), is given below :—

"Seven 'ḍingās' or vessels were built by Biswakarmā and his son Dārubrahmā with the assistance of Hanumāna. The mighty hero

p. 44). See also the sculptures from the Sanchi Stupas (R. K. Mukherjee's above work, pp. 33-34). The Chinese Junk (Commercial Museum, Philadelphia) as told by Marco Polo (Periplus of the Erythraean Sea, 247), published by Longmans Green and Co.) may also be mentioned in this connection.

[1] *Cf.* Nelson's Flagship 'the Victory' in the battle of Trafalgar.

Hanumāna began to saw the wood of various denominations, such as 'Śāl,' 'tāl,' 'kāṭhāl,' 'peāl,' 'gāmbhāri' and 'tamāl.' The architect Dārubrahmā in the meantime made the nails. They made beautiful vessels, each of which was hundred yards in length and twenty yards in breadth. The prow of each vessel resembled the head of a Makara fish. It was made of ivory and the eye-balls were of precious gems. First, the ship 'Madhukara' was constructed. In its central part there was the 'Rāighar' containing 'Rājāsan'—the principal cabin for the merchant. A nook was reserved for the helmsman and the back part as the strong room for keeping treasures. There was also a mast on the vessel. The Daṇḍa-kerwāl or oars were made of jack and teak wood and a helm was fitted to the prow of each vessel. The seven vessels were named :—*

1. Madhukara (the Bee)—The flagship.
2. Guārekhi (Its prow resembled the head of a lion).
3. Ranajayā (the victory).[1]
4. Ranabhimā (the Terrible in war).
5. Mahākāyā (the Titanic).[1]
6. Sarbadharā (the All-Container).
7. Nāṭsālā (the Amusement Hall).[2]

The following were the principal parts of a vessel :—

1. Ḍāṛa (helm) or pātwāl[3].
2. Mālumkāṣṭha (the mast).

[1] *Cf.* the famous ship 'Titanic' of the White Star Line Company.

[2] Inspite of exaggerated descriptions of our poets, these vessels containing amusement hall, as in 'Nāṭsālā' and containing everything as in the 'All-Container' of the list of Kavikankan as also Ajayśelpāṭ and Pakshirāj of the list of Vijay Gupta mentioned later on, may be compared with the present-day ships of the other civilised countries of the world.

[3] Ḍāṛa in the present dialect of the countryside means an oar, but in our older works it has often times the meaning given above.

* দেবকারু বিশ্বকর্ম্মা, তার সুত দারুব্রহ্মা,
শিরে ধরি চণ্ডিকার পাণ।
চারি প্রহর রাতি, জ্বালিয়া ঘৃতের বাতি,
সাত ডিঙ্গা করয়ে নির্ম্মাণ॥

3. **Talā** (hold).
4. **Māthākāṣṭha** (prow).
5. **Chhaighar** (shed).
6. **Pāṭātan** (deck).
7. **Daṇḍakerwāl** (oar).
8. **Banśakerwāl or Dhvaji** (Bamboo-pole).
9. **Fās** (chord).
10. **Nangar** (anchor).
11. **Pāl** (sail).
12. **Ḍāṛā** (keel).

হনুমান মহাবীর, নখে করে দুই চীর,
কাঁঠাল পিয়াল শাল তাল।
গাম্ভারী তমাল বহু, নখে চিরে দিল বহু,
দারুব্রহ্মা গাঢ়য়ে গজাল ॥
শিলে শানায়ে কসি, পাটী চাঁচে রাশি রাশি
নানা ফুলে বিচিত্র কলস।
পিতাপুত্রে দুঁহে আটি, গজালে গাথিল পাটী,
গঢ়ে ডিঙ্গা দেখিতে রূপস ॥
প্রথমে করিল সজ্জ, দীর্ঘে ডিঙ্গা শত গজ,
আঢ়ে গঢ়ে বিংশতি প্রমাণ।
মকর আকার মাথা, গজদন্তের বাতা,
মাণিকে করিল চক্ষুদান ॥
গঢ়ে ডিঙ্গা মধুকর, মধ্যে তার রইঘর,
পাশে গুড়া বসিতে কাণ্ডার।
দুসারি বসিতে পাইট, উপরে মালুম কাঠ,
পিছে গঢ়ে মাণিক ভাণ্ডার ॥
গঢ়ে ডিঙ্গা সিংহমুখী, নাম যার গুয়ারেখী,
আর ডিঙ্গা গঢ়ে রণজয়া।
অতি অপরূপ সীমা, গঢ়ে ডিঙ্গা রণভীমা,
গঢ়িল পঞ্চম মহাকায়া ॥
গঢ়ে ডিঙ্গা সর্ব্বধরা, হীরামুখী চন্দ্রকরা,
আর ডিঙ্গা নামে নাটশালা। ইত্যাদি
—কবিকঙ্কণের চণ্ডীকাব্য।

These names are still used to convey the meanings they did in ancient Bengal. It would be interesting for the purpose of comparative study to find out if some of these technical names were analogous to those used in other parts of India in the literature of ship-building.

In the description given above, we find elaborate details of the different parts of a ship built in those days. Exaggerated descriptions are, however, apparent in the writings of Bijay Gupta and some of the poets of the latter-day Manasā cult, when ship-building as an art was practically abandoned in Bengal. But though there is much of legends in the stories, the old traditions were not altogether lost sight of. Ships of considerable tonnage for commercial purposes were surely still being constructed.[1] The descriptions of voyages often go to show that ships of very large size used to be constructed in Bengal even if sufficient allowances are made for poetic imaginations.[2] In Bijay Gupta's Manasāmangal (Pearysankar Gupta's ed.) we find the following):

"First was launched the Madhukara. On board this ship, the millionaire Chānd took his quarters. It was followed by the ship 'Biju-siju.' This was so big that it broke the crooked projections of the banks on either side levelling them as she moved on. Then followed the 'Guārekhi.' She was so high that the City of Lanka situated at a long distance, was visible from its deck. After her came

[1] See Kavikankan, p. 220. (If 100 carpenters worked for a whole year, only one vessel could be constructed.) Also see Banśidas, p. 285. (1,600 carpenters cut the branches of the Manpaban tree and piled them up in rows.) See also p. 282. (By the command of the king the Chief Engineer Giribar and the Admiral Gopal started with 1,600 carpenters.)

[2] See Turnour's Mahāwanso. In this book we come across the following: "Prince Bijay and his followers were sent away by King Sinhabāhu of Bengal (on board a ship) which was so large as to accommodate full seven hundred passengers." According to this work the ship in which Bijay's Pandyan bride was brought over to Ceylon was of a very large size, having the capacity to accommodate 18 Officers of State, 75 menial servants and a number of slaves besides the princess herself and seven hundred other virgins who accompanied her. (See Radhakumud Mukherjee's—'A History of Indian Shipping and Maritime Activity, pp 157-162; also pp. 163-164). See also 'Bangalir Bal' by Rajendralal Acharyya, p. 22; and the copper-plate grants found in East Bengal for Bengali docks and harbours of ancient times. See for the above 'The Indian Antiquary,' Vol. XX, pp. 44-45. (3 copper-plate grants from East Bengal, by F. E. Pargiter.) See 'Bangalir Bal,' p. 39, and J.R.A.S., 1895, p. 525.

'Bhārār-Paṭua,' dancers were on board this ship. She was followed by Śankhachur (the shell-crowned). Her sides seemed to touch two opposite banks of big rivers and her bottom the ground under water. Next started 'Ajayśelpāṭ' (the invincible steel-bottomed). There was an arrangement for a big fair in this ship. Then came up the 'Udaytārā' (the morning-star). Her length was so extraordinarily large that when half the portion was exposed to rain the other half enjoyed sun-shine. Then sailed the 'Tiāṭhūṭi' (or the parrot-beaked). She was filled with merchandise, such as jute and coarse blankets, etc. Then followed the 'Dhabal' or (the white). She moved slowly and often stopped on account of her great bulk. After every stoppage she was to be set in motion by sacrificing a hundred goats. Then sailed the 'Kedār,' or the great god Śiva. Before reaching the shore the ship had to be worshipped with incense and 'Panchapradīp' as is done in a temple when performing the evening service.[1] Then came the 'Pakshirāj,' or (the Prince of Birds). Many fruit trees of considerably large size were there for the use of the people on board the ship. Then was launched the 'Bhīmākṣa' or (the fierce-eyed). This vessel carried fourteen lakhs of conch-shells. This was followed by the vessel 'Śankhatāli' or (the treasure of shells). Her principal parts were made of sandal wood. Behind her sailed the vessel 'Ājlā-kājlā.' She used to devour a hundred goats at every turn of the river (meaning that its size was so big that at every turn its motion had to be ensured by sacrificing 100 goats). Thus one after another the ships proceeded to the Gangāsāgar.[2]

[1] The popular notion of the old Bengalis about the ships being endowed with life bears a striking similarity to the notion of the people of ancient Europe. We learn in Grote's History of Greece (London, John Murray, 2nd edn., Vol. I, p. 214) the following:—"Argus, the son of Phryxeus, directed by the promptings of Athenē, built the ship inserting in the prow a piece of timber, from the celebrated oak of Dodona, which was endowed with the faculty of speech." See also Apollon. Rhod., 525; IV, 580. Apollodor. I, 9, 16 *Cf.* the death of Iphyginia, daughter of Agamemnon of Homer's Iliad.

[2] চৌদ্দ ডিঙ্গা।

* * * * *

প্রথমে বাওয়াইল ডিঙ্গা নামে মধুকর।
যেই নামে চলিল লক্ষের সদাগর॥

The following descriptions found in the Manasāmangal by Bansidās (D. Chakravorti's ed.), p. 288, may also be noted :—

"The first vessel which Chānd launched on water was Madhukara. Its deck was filled with earth, so that it took the appearance of land on which a small town with markets was set up. The foredeck was reserved for worship. A tank of fresh water was there with aquatic plants on its surface to keep it cool and with fish of various descriptions. A vegetable and a flower-garden completed the outfit of this wonderful ship." The merchant Chānd ascertained the cost of this ship to be fourteen lakhs of 'tankās' as may be gathered from what he had said to his treasurer Govinda. He furthermore said that the merchandise on board this ship was worth the same amount.[1]

তার পাছে বাওয়াইল ডিঙ্গা নামে বিজুসিজু।
গঙ্গার দুইকুল ভাঙ্গিয়া বেকা করে উজু॥
তার পাছে বাওয়াইল ডিঙ্গা নামে গুয়ারেখী।
যার উপরে চড়িয়া রাবণের লঙ্কা দেখি॥
তার পাছে বাওয়াইল ডিঙ্গা ভাড়ারপাটুয়া।
যেই নায় উঠাইয়া লইল তামিলের নাটুয়া॥
তার পাছে বাওয়াইল ডিঙ্গা নামে শঙ্খচূড়।
সমুদ্রের দুইকুল ভাঙ্গে পাতালে ঠেকে মুড়॥
তার পাছে বাওয়াইল ডিঙ্গা অজয়শেলপাট।
যাহার উপরে মিলিয়াছে শ্রীফলার হাট॥
তার পাছে বাওয়াইল ডিঙ্গা নামে উদয়তারা।
অনেক নায় ঝড়বৃষ্টি অনেক নায় খরা॥
তার পাছে বাওয়াইল ডিঙ্গা নামে টিয়াঠুটী।
যেই নায় ভরে সাধু পাট আর ভুটি॥

—বিজয় গুপ্তের মনসামঙ্গল।

[1] মাটি ভরাভরি সব করিল সুসার।
হাটঘাট বসাইল সহর বাজার॥
* * *
চান্দ বলে শুন ভাই গোবিন্দভাণ্ডারী।
চৌদ্দ লক্ষ টাকা যে নায়ের মূল্য করি॥
আর চৌদ্দলক্ষের বেসাতি লহ নাও।
নৌকা লয়্যা ভাগী সাজি স্থানে স্থানে যাও॥

—বংশীদাসের মনসামঙ্গল, পৃঃ ২৮৮।

Another description found in the same work, p. 319, is given below :—

" First started Sankhachuḍa followed by Chhatighati (the ship of wares) which was filled with earthen-wares. Then Kājalrekhi (lined with collyrium), Durgābar (the boon of the goddess Durgā) and Mānikyameruā (the diamond-crowned) sailed one after another. The last was so big that it had to be driven by sixteen hundred oarsmen. Then proceeded Āgal-pāgal (the mad), Rājaballabha (the favourite of the king), Hansakhal (the Royal duck) and Sāgarphenā (the sea-foam), one behind the other. The last one was filled with soldiers of Kalinga. Behind these ships came Udaygiri (the mountain of the rising sun), followed by Laksmipāsā (the abode of the harvest goddess). In the latter ship the priest Subhāi established himself with all the requisites for worshipping Haragauri. The next two vessels were Udaytārā (the morning-star) and Gangaprasād (the favour of the Ganges). The last one of the fourteen ships was the flagship Madhukara, the Bee, which was the best of the lot. In this ship the merchant Chānd, the lord of the fleet, had his quarters with his five advisers. During the voyage the crew sang Sāri songs (a kind of chorus) all the while.[1]

[1] দুলাই বলে বাও বাও বন্দিয়া চণ্ডিকার পাও
প্রথমে মিলিল শঙ্খচুড়।
ছোটিঘটি তার পাছে যে নায়ে ভরিয়া আছে
হাড়ীপাগ ধুকুরা বিস্তর॥
তবে সে কাঁজলরেখী দেখিতে জুড়ায় আঁখি
চতুর্থে মিলিলা দুর্গাবর॥
মাণিক্য-মেরুয়া নায়ে ষোলশত দাঁড় বায়ে
তার শেষে আগল-পাগল।
তবে ত রাজবল্লভ রাজহংস ভরাসব
অষ্টমে মিলিল হংসখল॥
নবমে সাগরফেণা যে নায়ে কলিঙ্গজনা
তার শেষে মিলে উদয়গিরি।
একাদশে লক্ষীপাশা যে নায়ে সুমাইর বাসা
নিত্য যাতে পূজে হরগৌরী॥

Another description from the Chandikāvya by Kavikankan Mukundarām, p. 191, is given below :—

First was recovered from water the ship Madhukara. Its drawing-room was made of pure gold. Then came the turn of Durgābar. It was full of gābars or sailors. Then came to sight the ship 'Guārekhi.' Her mast (Mālumwood) might be seen from a distance of six miles. Another ship which rose up was the Sankhachuḍa. Her breadth was eighty yards. Another ship named Chandrapāl was now recovered from the depth of water. When sailing, her sides touched both the banks of the river. The seventh and the last vessel was Chhatimati which carried rice.'[1]

উদয়তারা দ্বাদশে গঙ্গাপ্রসাদ তার শেষে
চতুর্দ্দশে মিলে মধুকর।
পঞ্চপাত্র সঙ্গে করি বসিয়াছে অধিকারী
যে নায়ে আপনি চন্দ্রধর ॥
চৌদ্দ ডিঙ্গা বাইয়া যায় পাইক সবে সাইর গায়
তোল পাড় গোঞ্জরী সাগর।
ডিঙ্গা সব চলে ঝাটে দুইকুলে প্রজার ঠাটে
দ্বিজ বংশী মনসা-কিঙ্করে ॥

বংশীদাসের মনসামঙ্গল, পৃঃ ৩১৯।

[1] প্রথমে তুলিল ডিঙ্গা নামে মধুকর।
সুবর্ণেতে বান্ধা যার বৈঠকির ঘর ॥
তবে ডিঙ্গা তুলিলেন নামে দুর্গাবর।
আখণ্ড চাপিয়া তাতে বসিল গাবর ॥
তবে ডিঙ্গাখান তোলে নামে গুয়ারেখী।
দুই প্রহরের পথে যার মালুমকাঠ দেখি ॥
আর ডিঙ্গাখান তোলে নামে শঙ্খচূড়।
আশীগজ পানীভাঙ্গে গাঙ্গের দুকুল ॥
আর ডিঙ্গা তুলিলেন নামে চন্দ্রপাল।
যাহার গমনে দুইকুল করে আল ॥

In the midst of the evidently exaggerated descriptions of the poets about big vessels we sometimes come across accounts of smaller crafts in our old literature. We find in Bansidās (p. 320), for example the following :—"The admiral Gopāl who sailed first had with him forty-two small boats (hāt-nāo). The mode of construction of the river-boats and that of sea-going ships are now precisely the same as we read about them in our old literature and the nomenclature adopted in the past was on the whole the same as we use it now. It seems that the sea-going ships and the river-crafts were built on the same principle. Even the other day a coasting vessel named the Āminākhātun and its sister-vessels of considerable tonnage were built by a merchant of Chittagong with the help of local carpenters and mechanics and the method of building adopted for the purpose appears to be the same as was done in the past. So far as their build and speed are concerned, these ships were perhaps not inferior to those used in England in the days of Nelson. A point of coincidence, *i.e.*, of keeping a flagship in the mercantile marine as we find in the navy of the civilised world to-day is indeed curious. The numbers of ships, *i.e.* seven and fourteen, which the merchants of old generally adopted in completing a fleet were perhaps due to the notion that these numbers were auspicious. A merchant before undertaking a voyage used to perform certain ceremonies.[1]

The following among others constituted the crew of a ship :—

1. Gābar (sailors, consisting of two classes) : (*a*) Mānjhi or oarsmen, (*b*) Dāri or Karnadhār (helmsmen).
2. Sutradhar or Carpenter.
3. Karmakār or blacksmith.
4. Pāik or foot-soldiers.
5. Dubāri or diver.
6. Mirbahar or admiral.
7. Kārikar or craftsmen
8. Kārāri or helmsman and captain.

আর ডিঙ্গা তুলিলেন নামে ছোটিমটি।
যাহে ভরা দিল চলু বায়ান্ন পউটি ॥

—কবিকঙ্কণ, পৃঃ ১৯১

[1] See Sen's Folk-literature of Bengal, Calcutta University, pp. 73-75.

Gābar,—a sailor. The caste from which boatmen were generally recruited is still known as Gābar in Bengal. They were exceptionally sturdy and the term 'Gāithyārgābar,' applied to them, signifies great physical strength. The sailors used to sing a chorus called Sari when plying their oars.[1] The sailors were mainly recruited from East Bengal.[2]

Sutradhar,—carpenter. Carpenters' services were required for repairs and the joining of parts; these carpenters supplied the necessary crew corresponding to an Engineering staff maintained on board a modern ship. Carpenters were essential for European ships when steamships were not in vogue.

Karmakār,—blacksmith. Blacksmiths were engaged in building a ship and as their services were considered indispensable, they were taken on board the ships.

Pāik,—foot-soldiers. They were taken in perhaps owing to insecurity of the age, to protect merchandise from any possible attacks of pirates or hostile foreigners.[3] Mention is found of the Telugu soldiers employed by the Bengalis in the Manasā-Mangal and the Dharma-mangal poems.

Dubāri,—divers. They accompanied the sea-going merchant vessels to ascertain if there was anything wrong in that part of a vessel which remained under the water.[4]

Mirbahar,—admiral. It is an abbreviation of the Arabic term Amir-al-Bahar, meaning an admiral of a fleet. The admirals would not only accompany warships but also armed merchantmen as appears from the description of Chānd's voyage for trade. In Bansidās we find Admiral Gopāl accompanying the carpenters in their voyage in quest of Manapaban wood perhaps to guard them against any possible attack, a precaution which was considered necessary to provide against insecure sea-voyage.

From the descriptions that one comes across in the works of our poets it appears that the merchandise carried in Bengali vessels was

[1] See Satyanārāyaner Punthi, edited by Abdul Karim and Manasāmangal poems.

[2] See Kavikankan, pp. 198 and 207-8. The Gābars used 'Danda (helm), Danda Kerwāls (oars), Bansakerwāls (bamboo-poles) and Fāns (chords) to ply the vessels See Kavikankan, pp. 195, 227, 194, 228, 207, 229, 234, 236.

[3] See Bansidās, p. 329.

[4] See Bansidās, p. 329.

mainly intended for export to Pātan and Singhal. A system of barter was generally resorted to and fraud[1] played by the Bengali merchants on foreigners of questionable civilization, furnished a stock of humour and fun to our poets, on which all of them wrote in the same strain. We find occasional mention of merchandise, wherein the prices are sometimes ludicrously exaggerated, for during the time when these works were written, sea-voyage was reduced to a vague tradition in which facts and fiction were hopelessly blended together. Still we give below two lists which may be found interesting as they no doubt contain some elements of truth. According to Bansidās, it was the Bengali merchants who introduced cocoanuts and betels in some foreign countries, but this seems to be a myth.

First List.

Items of Bengali Merchandise.		Articles of foreign countries.
(1) Betel-leaves	in exchange of	Ten emeralds for each leaf.
(2) Betel-nut	,,	Ten gems.
(3) Lime	,,	Quick-silver.
(4) Catechew	,,	Gorachanā (a bright yellow pigment).
(5) Cardamom	,,	Pearl.
(6) Satābari Kameswar (*Asparagus racemosus*)	,,	Musk.
(7) Fruits	,,	Golden bricks, bells, etc.
(8) Vegetable-roots	,,	Diamond.
(9) Pulses	,,	Corals.
(10) Onions and garlics	,,	Maces.
(11) Camphor	,,	'Bākhar.'
(12) Water-weeds	,,	Diamond.
(13) *Dolichos gladiatus* (Mākhanā)	,,	Ruby.
(14) Goats and sheep	,,	Gold.
(15) Radish	,,	Ivory.
(16) Dry fish	,,	Sandal-wood.
(17) Sugarcane	,,	Royal maces (nabadanda, symbol of royalty).
(18) Jute	,,	Chowrie (Chāmar).

[1] See the Chandikāvya by Kavikankan (the character of Murāriçila) and the story of Çankhamālā by D. R. Majumdar.

Items of Bengali Merchandise.		Articles of foreign countries.
(19) Wooden utensils	in exchange of	Gold and Silver utensils.
(20) Wooden furniture	,,	Golden furniture.
(21) Earthenwares	,,	Bell-metal utensils.
(22) Oil and clarified butter	,,	Quick-silver.
(23) Kumkum	,,	Jarful of honey.
(24) Poppy	,,	String of gold-bell.
etc.		etc.

For a reference to the above list, see Bansidās, pp. 380-390, 392-393 (D. Chakravorti's ed.).[1]

Second List.

Items of Bengali Merchandise.		Articles of foreign countries.
1. Deer	in exchange of	Horse.
2. 'Biranga'	,,	Clove.
3. Suntha	,,	Tanka—a kind of wood apple, *Feronia Elephantum.*
4. Ape	,,	Elephant.
5. Pigeon	,,	Suā (a bristly Caterpillar).
6. Fruits	,,	"Jāyfal."
7. Bahara	,,	Betel-nut.
8. Jute	,,	White Chowrie (Chāmar).
9. Glass	,,	Emerald.
10. Sea-salt	,,	Rock-salt.
11. Dhuti (cloth)	,,	Pots.
12. Oyster-shell	,,	Pearl.
13. Haritāl	,,	Diamond.
14. 'Joāni'	,,	"Yirā."
15. "Chuā"	,,	Sandal-paste.
16. Sheep	,,	Horse.

[1] আগে আনি গুয়াপান, থুইলেক বিদ্যমান,
মূল্য বলে কাঁড়ারী তুলাই।
একটী একটী পাণে, মরকত দশগুণে,
গুয়াতে মাণিক্য যেন পাই॥

See Kavikankan Mukundaram's Chandi-Kāvya, p. 191—Dhanapati's exchange of merchandise in Ceylon.[1] The exchange of commodities seems to be somewhat more reasonable than that to be found in Bansidās.

It is to be noted that there was a time when glass used to be exported from India. We learn the following in the Periplus of the Erythrean Sea, pp. 220-221 (by W. H. Schoff, A.M., Longmans Green & Co., 1912).

"The origin of the glass industry in India is uncertain. According to Mitra, Antiquities of Orissa, I, 101, it was made in Ceylon in the 3rd century B. C. and Pliny (XXXVI, 66) refers to the glass of India as superior to all others, because 'made of pounded crystal.' Mirrors, with a foil of leas and tin, were largely used at the time of the Periplus, and Pliny indicates (XXXVII, 20) that 'the people of India, by colouring crystal, have found a method of imitating various precious stones, Beryls in particular.' An early play, the Mrichhakatika, or Little Clay-Cart, describes a scene in a court of justice to this effect (Mitra, 100; see also A. W. Ryder's translation, Cambridge, 1905)."

বদল করিতে চূণ, রস দিবা দশগুণ,
খয়ার বদলে গোরচনা।
সুগন্ধী এলাচি হালী, লহ মতির বদলি,
কেসর বদলে দিবা সোণা॥
শতাবরী কামেশ্বর, আনি বলে সদাগর,
এর গুণ কহিতে না পারি।
খাইয়া বুঝহ আগে, কিমত আস্বাদ লাগে,
তৌলি দিবা বদলে কস্তুরী॥ ইত্যাদি।
—বংশীদাসের মনসামঙ্গল, পৃঃ ৩৮০-৩৯০ ও ৩৯২-৩৯৩।

[1] কুরঙ্গ বদলে, তুরঙ্গ পাব,
নারিকেল বদলে শঙ্খ।
বিড়ঙ্গ বদলে, লবঙ্গ পাব,
শুণ্ঠের বদলে টঙ্ক।

The Bengali merchants usually carried on trade with Ceylon and Pātan in Guzrat and visited the following ports :

1. Puri.
2. Kalinga or Kalingapatam.
3. Chilkāchuli or Chicācole in the Madras Presidency.
4. Bānpur.
5. Setubandha Rāmeswar.
6. City of Lankā (in Ceylon).
7. Nilaccā or Laccadives.
8. Pātan (in Guzrat).

One of the chief places outside India visited by the Bengali merchants was the Laccadives. Mention is found also of Pralamba, Nākut, Aheelankā, Chandrasalya island and Ābartana island which we cannot identify but which undoubtedly lay outside our country. A vivid description of the coasting voyage of the Bengali vessels from Saptagrām (an inland port of Bengal) to Pātan in Guzrat by doubling the Cape Comorin, is found in the Manasāmangal poems of Bansidās. In the Chandikāvya of Kavikankan Mukundarām we find accounts of mercantile adventurers of Bengal related in glowing terms. The lists of ports, both Indian and foreign, and the conditions of sea-voyage tally in both these works.

In Bansidās we find the following description of the voyage of Chānd, the merchant. Inspite of poetic fancy and exaggeration, a rough idea of the sea-routes and ports may be gleaned from it.

"The merchant started for south Pātan. There were great celebrations and festivities at the city of Champaka. All the ships started one after another. At the head of the vanguard was admiral

লবঙ্গ বদলে, মাতঙ্গ পাব,
পায়রা বদলে শুয়া।
পাটশন বদলে, ধবল চামর পাব,
কাচের বদলে নীলা।
লবন বদলে, সৈন্ধব পাব,
জোয়ানী বদলে জিরা॥

ইত্যাদি।

—কবিকঙ্কণের চণ্ডীকাব্য, পৃঃ ১৯১

Gopāl with forty-two small vessels. After leaving his own territory Chānd passed through the following places in succession : Kāmārhāti, Madhyanagar, Pratāpgarh, Gopālpur and Rāmnagar. He then reached Kalidāh-Sāgar which he crossed leaving to the right Gandharvapur and Birnagar to the left. Then the merchant reached the mouths of the Ganges after passing through Kāmeswar, Māndarerthānā, Pichaltā and Rāmbishnupuri one after another. At Gangāsagar Chānd performed worship and sacrificed goats. After leaving Champaknagar the ships were on the voyage for five months. The merchant passed through many difficult places after having reached the sea. He passed through Utkal and Kalinga on his right. Crabs, lobsters, leeches and crocodiles obstructed his passage through the malice of Manasa Devi. At last the merchant reached the golden Lankā surrounded by golden walls. Chānd here saw the Rākshasa king and received his pass-port before proceeding further. Then he left Lankā on his right and passed the Malaya mountain near Cape Comorin. He also passed Bijaynagar (Ceylonese?) then ruled by King Ahi. The next important place which the merchant visited was Parasurāmtirtha. Leaving this place the merchant reached the vast sea known as the Nilaccārbunk (*lit.* bend of sea near Nilacca—perhaps Laccadives). Reaching this sea the crew felt giddy as they heard the deep sound of the waves which rose as high as mountains. They almost lost their way but through the expert direction of Captain Dulāi the vessels were steered properly. It was by looking at the stars that Dulāi could keep to the right direction. After much trouble, the merchant Chānd and his companions reached the city of Pātan, then ruled by King Chandraketu.[1]

On Chānd's way back from Pātan, he crossed the Laccadives, then passed the Vindhya-ranges, Lankā, Setubandha-Rāmeswar and reached Kālidaha-sāgar where he experienced a heavy storm.[2]

The above description leads us to the conclusion that Pātan, once a celebrated city in Guzrat, was frequented by the merchants of Bengal who reached the place by sea crossing the Bay of Bengal, part of the Indian Ocean and the Arabian Sea. The voyage was probably a coasting one and Ceylon which stood midway between Bengal and Guzrat by the sea-route, was a favourite place of commerce for the merchants of Bengal. Pātan is not an inland city similar

[1] See Bansidas, pp. 318-339.

[2] See Bansidas, pp. 396-399.

to Tāmralipti or Tamluk which was once one of the most important seaports of Bengal. Though Pātan means a city yet the frequent mention of this particular Pātan and the way leading to it, makes us think that it is no other than the Pātan or Somnath Pātan of Guzrat, not a fanciful creation of our poets.[1]

চলে সাধু দক্ষিণ পাটনে।
চম্পক নগর মিলি, কৌতুকেতে হুলাহুলি,
জয়ধ্বনি উঠিল গগনে॥
হুলাই বলে বাও বাও, বন্দিয়া ভবানী পাও,
প্রথমে চলিল শঙ্খচূড়।
ছোটিঘটী তার পাছে, যাতে ভরা ভরিয়াছে,
হাঁড়ীপাগ ধুকুড়া বিস্তর॥

* *

গোপাল মিরবর চলে ঠাট আগুয়ান।
তার সঙ্গে হাত নাও ব্যাল্লিশ খান॥
পানী চরি আগে চলে ব্যাল্লিশ নাও।
ঠাট পাছে চন্দ্রধর বলে বাও বাও॥
নিজরাজ্য ছাড়াইল হাস্য পরিহাসে।
ছাড়ায় কামারহাটী আঁখির নিমিষে॥
মধ্যনগর কূল দক্ষিণে থুইয়া।
দুর্জ্জয় প্রতাপগড় ছাড়ায় বাহিয়া॥
ছাড়ায়্যা গোপালপুর রামনগর।
বাহিয়া আসিয়া পড়ে কালীদসাগর॥
ডাইনে গন্ধর্ব্বপুর বামে বীরাঙ্গনা।
কামেশ্বর বাইয়া যায় মান্দারের থানা॥
পিচলতা বামে রাখি যায় তাড়াতাড়ি।
সম্মুখে নগর দেখে রামবিষ্ণুপুরি॥
হরষিত হৈয়া পুছে রাজা চন্দ্রধর।
স্বরূপে কহরে ভাই একার নগর॥
প্রজা সবে বলে রাজ্য শ্রীরাম রাজার।
ডাকাচুরি নাহি এথা কোন পাপাচার

It seems our merchants used to frequent the islands and ports of the Bay of Bengal to which reference has already been made in this Chapter.

The following description is to be found in Bijay Gupta's Manasā Mangal (N. M. Sen Gupta's ed., pp. 194-195) :

"Oh merchants, listen. In the north King Mukteswar reigns. It is very difficult to comprehend the ways of his people. They take the seeds of pepper for rice. The king of the east is known as Bidyāsanga. The greater the bulk of the person the more the respect is shown to him. The people are all degraded and the social customs are in a most pitiable condition. Marriage-laws are not at all strict as brothers often exchange their wives. Even a brother marries his sister in that land. The women enjoy complete freedom and use coloured cloth especially to cover the breast. Caste-system is not observed at all. In the west the people are barbarous. They bore their ears, seldom observe any caste distinction and use ornaments on the neck. They do not give the girls in marriage unless they are sixteen and even then they put the married girl for some time in the priest's house in lieu of his fee. A married girl even keeps the house of her husband's sister's husband. In case of any child being born, it shares the property on both sides.[1] Now hear the condition of Pātan or the South Pātan. Its king is Bikram Kesari. The people of this land are very rich. They keep jars full of gems. In their land conch-shells, pearls, etc., are abundant as sea-waves fling them

সাগর সঙ্গম এই গঙ্গা শতমুখী।
শিবের বাঁকে চৌদ্দ ডিঙ্গা রহিলেক ঠেকি॥

* * * *

ফলার করিয়া পুনি হরষিত হৈয়া।
দক্ষিণ পাটন বলি যায় ডিঙ্গা বায়্যা॥

ইত্যাদি।

—বংশীদাসের মনসামঙ্গল, পৃঃ ৩১৮-৩৩৯।

[1] The peculiar customs regarding inheritance such as inheritance of nephews as found in Bansidās are still prevalent among the Nairs. The preservation of dead-bodies mentioned in the same work gives us glimpses of customs prevailing among the Buddhists.

in large numbers on the shore in particular phases of the moon. Even the poor own oysters and pearls." [1]

The above lines, though full of grotesque fiction, seem to contain some grains of truth. By the term 'the North' the poet perhaps indicates the foreign countries to the North-east of Bengal.

[1] উত্তর দিকের কথা শুন সদাগর।
সে দেশের রাজা আছে নামে মুক্তিশ্বর ॥
বুঝিতে না পারি কিছু সে দেশের মর্ম্ম
সে দেশের লোকে খায় মরিচের অন্ন ॥
পূর্ব্ব দেশের রাজা নাম বিদ্যাসঙ্গ।
সে লোক সাধু তার যত বড় অঙ্গ ॥
পরস্পর যত লোক তমরূপে থাকে।
ব্রাহ্মণ জাতি বসে যত সকলেই চর্ম্মকাটে ॥
জ্যেষ্ঠ ভাইর বধূ করে কনিষ্ঠে বদলা।
ভগ্নী লইয়া ঘর করে ভাইরে বলে শালা ॥
সকল জাতির নারী বেড়ায় দীর্ঘ ছান্দে।
বিচিত্র বসন দিয়া দুইস্তন বান্ধে ॥
সব জাতি একাচারি নাহিক আচার।
ধর্ম্মাধর্ম্ম জ্ঞান নাই কুৎসিত আকার ॥
সে দেশের লোক সব অতি বড় ধনী।
ডোঙ্গায় করিয়া রাখে মাণিক্য দোহারী ॥
অমাবস্যার পর তিথি আসে পূর্ণমাসী।
ঢেউতে নিয়া শঙ্খ মুক্তা তোলে রাশি রাশি ॥
হাট কুড়াইয়া খায় হাটুরিয়া কাঙ্গাল।
পাটিতে করিয়া শুকায় মুক্তা প্রবাল ॥
এতেক শুনিয়া সাধুর আনন্দিত মন।
নিশ্চয় কহিল যাব দক্ষিণ পাটন ॥
তথা হ'তে চান্দের ডিঙ্গা করিল গমন।
চন্দ্রকেতু রাজার দেশে করে আগমন ॥
ইত্যাদি।

—বিজয়গুপ্তের মনসামঙ্গল (নগেন্দ্রমোহন সেন সম্পাদিত), পৃঃ ১৯৪-১৯৫।

From Chittagong onwards to China, people are fond of pepper and they take it in excessive quantity with their meal. By the term 'the East' the poet perhaps means the Buddhist Burma and the adjoining countries where owing to the influence of Buddhism caste system is ignored and marriage-laws are less rigorous. The Burmese women are very fond of coloured garments. Freedom of women is also allowed in Burma. The Western country may possibly mean the Madras Presidency which lies to the South-west of Bengal. As regards Pātan, it may be said that it was a rich city or else the merchant vessels would not have been described as visiting the place for the purpose of trade.

Another account of the voyages of the Bengalis (as found in Kavikankan's Chandikāvya, pp. 195-202) runs thus:

"After the performance of the usual ceremonies before sailing, the merchant Dhanapati passed the following places: Bhowsingerghāt, Mātiārisafar, Chandigāchhā, Bolānpur, Purathān, Nabadwip, Mirzāpur, Āmbuā, Santipur, Guptipārā, Ulā, Khishmā, Mahespur, Fuliā and Hālisahar—all by the side of the Ganges. Then he reached the very celebrated inland port of Bengal known as Saptagrām near the Tribeni. The poet here incidentally praised this port and gave it a superior place among the following ports and places (some of which are Indian and some foreign) known to the poet. They are the ports of Kalinga, Trailanga, Anga, Vanga, Carnāt, Mahendra, Magadha, Mahārāstra, Guzrāt, Barendra, Vindhya, Pingal, Utkal, Drāvir, Rārha, Bijoynagar, Mathurā, Dwārakā, Kāsi, Kankhal, Kekaya, Purabak, Anayuk, Godābari, Gayā, Sylhet, Kāmrup, Koch, Hāngar, Tribatta, Mānikā, Fatikā, Lankā, Pralamba, Nākutta, Bagar, Malay (Indian), Kurukshetra, Bateswari, Ahulankā, Sibatta, Mahānatta and Hastinā, etc. According to the poet the merchants of the above places visit Saptagrām but the merchants of Saptagrām do never visit those ports and places (these prove the exaggerated notion of the poet about Saptagrām).

At Saptagrām the merchant took on board sufficient quantity of drinking water for his voyage; he then passed some other places of note by the river banks, such as Nimāitirtha, Betarah, Bāgan, Kālighāt, Omulinga, Chhatrabhoga, Kālipur, Himāi, Hetāgarh, Sanketamādhaba, Madanmalla, Birkhānā, Kālihāti and Dhuligrām. On his way he encountered storm on the river Magrā. It took the

merchant twenty days to reach the canal of Angārpur. Then his vessels entered the sea adjoining the country of the Dravidas. The first place of note was Puri, celebrated for the temple of Jagannāth. Then the merchant visited Chilkāchuli or Chicācole. Next ports of note were Bāligha'ā and Bānpur which were soon left behind. They then reached the land of the Firinghees (Portuguese). They stealthily passed this place under cover of darkness at night as they were afraid of these people who were very strong for their fleet of warships which were known as Hārmādā (Portuguese Armada, the Portuguese being very strong in ships in these parts). Dhanapati then passed some seas which were infested with crabs, snakes and crocodiles, etc., like Chānd. After much difficulty he reached Lankā. Before reaching Lankā, however, Dhanapati's vessels touched Setubandha-Rāmeswar and crossed Kālidaha or Black-watered Sea." [1]

[1] দেবদ্বিজ গুরুজনে কৈল নমস্কার।
হরি হরি বলি নৌকা বাহে কর্ণধার ॥
লহনা খুল্লনা স্থানে করিয়া মেলানি।
বাহিয়া অজয় নদ পাইল ইন্দ্রানী ॥
(ইন্দ্রপুরে পূজা দিল লয়ে পুষ্পপানি।
(বাহ বাহ বলি ডাকে সাধু গুণমণি) ॥
ভাও সিংহের ঘাটখান ডাহিনে করিয়া।
মাটিয়ারি সফর খান বামে এড়াইয়া ॥
সঘন কোরোয়াল পড়ে জলে বাজে সাট।
এড়াইল চণ্ডীগাছা বোলনপুরের ঘাট ॥
ত্বরা করি সদাগর দিবানিশি যায়।
পুরথনের ঘাটখান বাহিয়া এড়ায় ॥
কোথায় রন্ধন কোথা চিড়াখণ্ড কলা।
নবদ্বীপে উত্তরিল বেনিয়ার বালা ॥
চৈতন্য চরণে সাধু করিল প্রণাম ;
সে ঘাটে রহিয়া করে রন্ধন ভোজন ॥
রজনী প্রভাতে সাধু মেলি সাতনায়।
নবদ্বীপ পাড়পুর এড়াইয়া যায় ॥

It is peculiar that Kālidaha which Bansidās mentions to be near Bengal Kavikankan places near Ceylon. It may be that any expanse of blue sea was called by them 'Kālidaha.' As for the mention of Hārmādās, it may safely be said that they are matters of history. The Portuguese pirate-vessels were for some time the curse of the eastern sea.

In the voyage of Srimanta, son of Dhanapati, we come across the names of two islands namely, Chandrasalya and Ābartana, both lying on the way to Ceylon. We cannot locate these islands as we cannot locate Bānpur '*en route*' to Chand's voyage, for obvious

ধরায় চালায় তরি তীরের পয়ান।
মুজাপুরের ঘাটে ডিঙ্গা করিল চাপান॥
নাইয়া পাইক গীত গায় শুনিতে কৌতুক।
ডাহিনে রহিল পুরী আম্বুয়া মুলুক॥
বাহ বাহ বল্যা ঘন পড়ে গেল সারা।
বাম ভাগে শান্তিপুর ডাহিনে গুপ্তিপাড়া॥
উলা বাহিয়া খিসমার আশে পাশে।
মহেশপুর নিকটে সাধুর ডিঙ্গা ভাসে॥
মহেশপুর সদাগর বাহিল তখন।
ফুলিয়ার ঘাটে ডিঙ্গা দিল দরসন॥
বামে হালিসহর দক্ষিণে ত্রিবেণী।
যাত্রীদের কোলাহলে কিছুই না শুনি॥
*　　*　　*　　*
কলিঙ্গ ত্রৈলঙ্গ অঙ্গ বঙ্গ কর্ণাট।
মহেন্দ্র মগধ মহারাষ্ট্র গুজরাট॥
*　　*　　*　　*
এ সব সফরে যত সদাগর বৈসে।
জঙ্গ ডিঙ্গা লয়ে তারা বানিজ্যেতে আইসে॥
সপ্তগ্রামের বেনে সব কোথায় না যায়।
ঘরে বস্যে সুখ মোক্ষ নানা ধন পায়॥
ইত্যাদি।

—কবিকঙ্কণ মুকুন্দরামের চণ্ডীকাব্য, পৃঃ ১৯৫-২০২

reasons. Though there is evidently much exaggeration about the size of the ships, it is quite probable that the vessels belonging to Bengali merchants were often of enormous size, for the bulk of ships counted very much during those days.[1] The Bengali poets had some traditions of the past, to which they added much that they derived from their imagination. In one of the ballads of Mymensingh, it is mentioned that a vessel was called koshā, because its length was two miles (a krosha). Of course, it is almost absurd to suppose that any vessel could be of such a monstrous shape, but it is not unlikely that in ancient times when there was a fashion in the civilised countries such as Egypt and Babylon, and as a matter of fact all the world over, in constructing huge and titanic vessels, a full fleet was sometimes made to cover a space of more than a mile, the tradition of which still lingers in the name of pleasure-boats, known as 'Koshā."

CHAPTER III

Costumes.

The costumes and ornaments of the old Bengali people were different in many respects from those used now-a-days by them. In this respect Bengal had more kinship with the up-country than we see it now. The illustrations given in the following pages are from works mostly written in the Mahomedan period though they will appear to represent things having a bearing on an earlier period.

Angarākhā.—It was a kind of coat once favoured in Bengal and still in use in Rajputana, Gujrat and some other parts of Northern India. It was a military dress in the Hindu period and this may be understood from the fact that the Rajputs still commonly use it while other people such as Bāniās do so but rarely. The Rajputs used it with a breast-plate purely for military purposes, which might have served as 'kabach' or armour, of which we have frequent mention in our old literature. The Angarākhā is now generally used as a purely civil dress. In Kotah (Rajputana) and Gujrat it is more commonly termed as Koriā. Koriā or Angarākhā as used by them is a long garment reaching the knee-joint and instead of

[1] For detailed information on Ancient ship-building of Bengal which is still current to some extent in Chittagong, see among others an article on the above subject in the Bengali newspaper "Jyoti," dated the 17th Bhādra (1327 B.S.). See also Introduction to Mymensingh Ballads (Vol. 2, C. U. Publication) by Dr. Sen.

buttons it has fastenings in the neck and breast. With an additional fastening at the waist it constitutes a special type and is known as 'Bālābandi-koriā.' The cuff of the Koriā is generally loose though sometimes close-fitting when buttons are used. In Bengal its use is restricted, being worn by old men in the remote corners of the province.[1]

Kānchuli.[2]—A corset. It is still used in many parts of India, such as Behar, United Provinces, etc. In Bengal it was considered as a fancy dress by ladies even in the days of the Mahomedan rule. But it is no longer a favourite costume with them. Kānchuli has two main types, one short—covering only the breast, and the other long—reaching down to the waist. This corset is fastened at the back with ribbons. Reference to this garment has been made by Kānā Hari Datta, Chandidās and a host of other writers, times without number. Old kānchulis bore beautiful artistic decorations—specimens of needle-work. For a description of these decorations we may refer our readers to the Dharmamangal poems by Ruprām. Here we find Nayāni wearing a Kānchuli, with exquisite needle-work decorations representing the 'rāsa' of Srikrishna. In Harivamsa by Dwija Bhowāni Das we find the description of a Kānchuli with the figures of Dasāvatāra on it. In Kavikankan's description of Kānchuli we find the figure of Bhagawati adorning the dress. The pictorial representations given by our poets are evidently exaggerated, but it cannot be denied that there is some truth in them. Specimens of beautiful repesentation of pictures are still available at Dacca, Benares and some other parts of Northern India.

Nibibandha.[3]—A kind of belt used by women. Another kind of belt, not so fine and artistic as the Nibibandha, was made use of

[1] For Angarākhā see the Dharmamangal poems by Rāmanārāyan, C. U. MS. No. 2454, Fol. 12,

অঙ্গে অঙ্গরেখি পরে দেখি লাগে ডর :

(The general put on 'Angarākhā' and looked fierce.) See also Viswakosha, Vol I, p. 76, where it has been made synonymous with sānjoā signifying armour.

[2] For a description of Kānchuli see Sree-Krishna Kirtan (edited by Basanta-ranjan Roy) among other works.

[3] See Manasāmangal, by Bansidās, p. 312,

নাভির উপরে পরে নীবিবন্ধ খানি :

(She wore a belt in the waist above the navel.) See also Rāmnārāyana, C. U. MS. No. 2454, F. 13. For পটুকা see *ibid.*, F. 2.

স্বর্ণের পটুকা বাঁধে কোমরেতে আটি :

by men, and it was called Patukā. The belt had a string of small bells attached to it, from end to end, to keep up a jingling sound pleasing to the ears as the wearer moved about. Description of women using Nibibandha when dancing and of men using Patukā when going to battle, are to be found in our old literature, such as the Dharmamangal and Manasāmangal poems.

The following gives an account of the different kinds of costumes used by people of different professions:

A Brahmin.[1]—The Dhuti and Chāddar of the priestly Brahmins are, of course, of hoary antiquity. Garments, such as shirt or coat were never used by them. The Brahmin priests would never use garlands or scents, specially when they were 'Brati' or engaged in observing austerities. Chaitanya, when a young man, used scents and garlands as he was not a 'Brati Bipra.'

Yogi.—An ascetic of the Yogi class used to shave his head, wear 'Kundals' or earrings of copper, rub his body with ashes, put on a rag and carry a beggar's knapsack, a dry pumpkin-gourd and a stick. The most significant mark of a Yogi or Yogini was the use of a Kundal. This, however, was often used as a threat by people

(The commander tightened a golden belt around his waist).

কোমরে পটুকা বাধে ঃ

(The commander tightened a belt around his waist). See also Bansidās, p. 312. See Rāmnārāyan, C. U. MS. No. 2454, F. 13,

ঘন ঘন ঘুঙ্গুরেতে ঘেরিল কোমর ঃ

(Close-fitting bells surrounded the waist of the warrior.)

[1] See the Mahābhārata by Kasidās, p. 269,

ব্রতী বিপ্র হৈয়া কেন হেন অনাচার।
সুগন্ধি চন্দন মাল্য অঙ্গে সবাকার॥
জ্ঞানী বিপ্র কভু মাল্য নাহি পরে গলে।

(Why have you all overlooked the custom by wearing garlands and using scents and sandal-paste, inspite of the fact that you are all Brahmin Bratis? A wise Brahmin never wears a garland.)

offering, as it did, a broad hint of his desire to turn a Yogi or Yogini.[1]

A merchant.—The merchant community as well as the upper classes of the Hindus used rich garments according to their means. Coats were used perhaps on special occasions while a Dhuti, a Chāddar and a Pāgri constituted their usual costume.[2] Shoes of various descriptions including silver-shoes were used by persons given to luxury.

A warior.—The dress of warriors in Pre-Mahomedan period consisted of an armour, a helmet, a pair of trousers, a belt with jingling bells attached to it and shoes sometimes of velvet. Ordinary soldiers, however, did not use velvet-shoes. A warrior would use armlet, bracelet and Nupur and rub his body with dust like that of the Mallas or wrestlers before being engaged in a duel. Long

[1] See Govinda Chandra's song, slokas 645-646,

সুবর্ণের খুরেতে মুড়ায় মাথার কেষ।
কর্ণেতে কুণ্ডল দিয়া হইল জুগী বেষ॥
বিভূতি মাখিল গায় কটিতে কৌপিন।
কাথা ঝুলি কান্ধে করি হইল উদাসান॥

(The king shaved his head with a golden razor, wore the costume of a Yogi with kundals or earrings and rubbed ashes over his body. He also wore the particular kind of cloth known as Kaupin. With rags and a beggar's knap-sack on his shoulders he became a veritable ascetic). See also Bansidās, p. 247,

লাউয়া লাঠি ঝুলি কাথা মাথে জটাভার।
ভগবান বস্ত্র পরি যোগীর ব্যবহার॥
তাম্র কুণ্ডল কমণ্ডলু করে।

(He took the dry skin of a gourd, a stick, rags and begging bowl with him, put on an ochre-coloured cloth and copper earrings as if a Yogi).

[2] See Bansidās, p. 195,

পালঙ্কে চড়িয়া যায়, পাটের পাছড়া গায়,
পট্টাম্বরের বন্দিস মাথায়।

(The merchant Chānd started in a palanquin. He wore silk clothes and had a silken scarf round his head.) Also the same author writes elsewhere,—

রজত পাদুকায় চাঁদ দিলেন চরণ:

(Chānd put his feet into his silver-shoes.)

sticks like the constable's regulation 'lāthies' were often carried by soldiers and these were known as 'Rāibāns.' In Manik Ganguli's Dharmamangal songs there is an animated description of the march of an army in full military dress.[1]

A cow-herd.—He used a short stick (Pāchanbāṛi) and a piece of rope for managing his cows. He used a Pāgri and such ornaments as 'Tāḍ' (Armlet), Bālā (Bangles), Kundals (earrings), etc. He also used a Singā (horn) to call his companions and herds. The cowboys were very fond of garlands of field-flowers and specially those of Gunjā (*Abrus precatorious*). They often painted their faces with Alakā and Tilakā—marks of sandal-paste.[2]

Female dress.—The women ordinarily used 'Kānchuli' (corset), 'Oḍna' (a sort of thin wrapper), Sāḍi with an underwear and Nibi-bandha with 'Kinkini' or Ghungura. In the sixteenth century

[1] See the Dharmamangal poems, specially of Manik Ganguli for description of commander's dress,—

শিরে রণটোপ সুচেল গায়, খাসা মকমলি পাদুকা পায় :

(The commander had a helmet on his head, a garment on his body and he wore an excellent pair of silver-shoes.) See also Rāmnārāyan, C U. MS. No. 2454, F. 13,—

পটুকা কোমরে বাঁধে গায় রাঙ্গা মাটি :

(The warrior tied the girdle or belt round the waist and rubbed ochre-coloured dust on his body.) Again the same author writes—C. U. MS No. 2454. F. 13.

ঘন ঘন ঘুঙ্গুরেতে ঘেরিল কোমর। অঙ্গে অঙ্গরেখি পরে দেখি লাগে ডর ॥

(the warrior put on his waist close-fitting bells known as ghunghur and wore Angarākhā which made him look fierce.) See Mādhavāchāryy's Chandikāvya,

শিরেতে টোপর শোভে কটিতে কিঙ্কিনী :

(The military 'Topar' otherwise known as Ranatop or helmet adorned the head and the bells adorned the waist of the warrior.) See Ramnārāyan,

তাড় বালা শোভয়ে নূপুর শোভে পায় :

(The Tāḍ or armlet and Bālā or bangles adorned the warrior's arms and the Nupur made the feet look pretty). See the Dharmamangal poems by Rāmchandra Banerjee,

রায়বাইস্যা পাইক হাজার হাজার ধায় :

(Thousands of soldiers armed with Rāibāns were on their march.)

[2] See Gitaratnāvali, pp. 70-71,

আওত শ্রীদামচন্দ্র রঙ্গিয়া পাগুরি মাথে :

and even earlier the Bengali women probably used Kochā (the tuck of the lower garment which hangs loosely in front of the Sāḍi). The up-country and Marathi women still preserve the display of a 'Kochā' in front of their Sāḍi though it is not prevalent at present among the Bengali women. It may be said that stray references to the use of 'Ghāgrā' is found in our old literature such as the Maynāmati songs and the Vaishnava padas. In 'Kshitish Vamsavalicharit' too we find mention of the occasional use of Ghāgrā by ladies in the family of Rājā Krishnachandra of Nadia. All these illustrations tend to prove that Ghāgrā was rather used in Bengal as an exceptional dress and came into vogue in this country in the pre-British period owing to the Mahomedan influence and the etiquette then prevalent in the country. It had never commanded universal use, perhaps on account of the climatic condition of this country. Ghāgrā is still used in North-

(The cowboy Sridām comes forward with a red turban on his head.) The same author writes again,

'গলে লম্বিত গুঞ্জামালা, ভুজে অঙ্গদবালা।
গোছাঁদন ডোড়ি কান্ধহি, কাণে কুণ্ডল মেলা॥'

(The cow-boy had the garland of *Abrus precatorious* on his neck and armlets and bangles on his arms. He had also kundals or earrings on his ears and he carried a rope on his shoulders to bind the cows.) See Mukundamangal by Haridās,

'শিঙ্গারবে সঙ্গি সবে সঙ্কেত করিয়া':

(He started giving signal to his companions by blowing the horn.) See Gostha by Balarām Das in which a cow-boy's dress has been thus graphically described:—

'অঙ্গে বিভূষিত কৈলা রতণ ভূষণ।
কটিতে কিঙ্কিণী ধটি পীত বসন॥
কিবা সাজাইল রূপ ত্রিভুবন জিনি।
পুষ্পগুচ্ছ শিখিপুচ্ছ চূড়ার টালনি॥
চরণে নূপুর দিলা তিলক কপালে।
চন্দনে চর্চ্চিত অঙ্গ রত্নহার গলে॥'

(A cow-boy's dress adorned the person of Krishna. He wore jewels and yellow-coloured cloths. He had a necklace on his neck, 'Kinkini' on his waist and 'Nupur' on his feet. He wore a peacock's feather on his head, 'Tilak' mark on his forehead and rubbed sandal-paste on his body.)

Western India and this may be due to the close association of the people of that province with the Mahomedans on account of the latter having had their power most strongly established there. The Vaishnava poets of Bengal used the word Ghāgrā probably to indicate the ideas they conceived of the Braja-Gopis of Vrindavan. Dr. Coomarswami and Mr. Arun Sen consider the following in their translation of Vidyāpati :

"Skirt--Ghāg rā—not now a separate garment but that part of the Saḍi which forms a skirt. But in Vidyapati's days the costume of Bengali women seems to have been that of Western Hindustan (skirt, bodice, veil) familiar in Rajput paintings. In this case 'Nibibandha' is actually the skirt-string (p. 177, notes)."

They further remarked that "Nibibandha is not properly a separate garment." We think that their comments are applicable only to the case of Mithila, the land of Vidyāpati and not of Bengal.[1] From a perusal of our old literature it seems doubtful whether Nibibandha was not a separate garment.

Men and women of old used incense (dhup) to dry and to scent their hair. For scents, the women used Kumkum, Aguru (*Aqualaria Agolacha* Aloe), sandal-paste and scented oil named 'Nārāyan Taila' and 'Vishnu Taila.'[2] Though the use of soap

N. B.—Vaisnavas out of their tender feelings for the cows would not use the word 'bāndhā' they use the softer word 'chhādan,' hence the word in the above quotation.

[1] For the use of saḍi with an underwear by the Bengali ladies see Jadunandan Dās' 'The Toilet of Rādhā,'

'সূক্ষ্ম রক্তবস্ত্র ধনি ভিতরে পরিল।
তাহার উপরে নীল বসন ধরিল॥'

(The beautiful girl wore a thin red cloth as an under-wear over which she put on a blue-coloured saḍi.) See also Chandidās' Khandità,

'নীল পাটের শাটি কোচার কুলনী' ঃ

(The blue silk sāḍi had a 'kochā' with it).

[2] See Manasāmangal by Jagat Jiban Ghosal,

'নারায়ণ তৈল, বিষ্ণু তৈল কেশের গোড়ে দিয়া' ঃ

(Using Nārāyan Taila and Vishnu Taila in hair.) See also Çunyapurān by Rāmāi Pundit and the Manasāmangal poems by Ketaka Das for a description of the use of Nārāyan Taila. See also the Manasāmangal poems by Dwija Rasik for a description of the use of Kumkum and sandal-paste,

(Sanskrit ফেণক) is found in Sanskrit works of Susruta and Bātsyāyana, its use was perhaps either unknown or forgotten in Bengal during the period under review. In place of soap myrabolans were in use.[1] The practice of using musk and sandal-paste was prevalent among both the sexes.[2] Collyrium was indispensable with women in former days. The sandal-mark (Tilak) on the forehead was essential in the Hindu period as the peculiarity of marking indicated the particular sect of a person. The painting with sandal-paste and musk was sometimes done by way of luxury and this was called 'Patra-rachanā' (*lit.* leaf-painting).[3] In it the leaves were not the only things that were represented on the cheek, forehead and the breast. The painting Alakā and Tilakā were very common.[4] This painting was afterwards practised as a regular art and the ingredient of the paint consisted of sandal-paste, Haritāl (Yellow orpiment), Manhasilā (Realgar) or Gorachanā (a bright yellow pigment).[5]

'কুঙ্কুম চন্দন গন্ধ কাপড়েতে কয়':

(The cloth diffuses the odour of Kumkum and sandal-paste.)

[1] See Krittivāsi Rāmāyan,

'সখী দেয় সীতার মস্তকে আমলকী':

(The maid uses myrabolans to cleanse Sita's hair.)

[2] See Krittivāsi Rāmāyan,

'সর্ব্বাঙ্গে লেপিয়া দিল সুগন্ধি চন্দন':

(The whole body was besmeared with the sweet-scented sandal-paste) See also the pada by Vāsudev Ghosh,

'কস্তুরি চন্দন করি ঘরিষণ, গাঁথিয়া ফুলের মালা':

(Rubbing the musked sandal-paste on the body and preparing a flower-garland.)

[3] See Jadunandan Das,

'কস্তুরির পত্রাবলী লিখিল কপালে':

(The forehead was painted with musk). And Ray Basanta,

'মৃগমদ চন্দন তিলক নবকুসুম পত্রাবলী নিরমাণে';

(The figures of newly sprouted leaves and flowers and Tilak mark were painted with the help of musk and sandal-paste.)

[4] See Padāvali by Govinda Das,

'অলকা তিলকা দেহ':

(Paint Alakā and Tilakā marks.)

[5] See Bātsyāyana's 'Kamasutra,' a Sanskrit work, for a detailed account of the above.

In our old literature such as Mānikchandra Rājār Gān, the Manasā-mangal poems and others we find mention of cloths of various descriptions[1] such as 'Pāter Pāchhrā' and Khunā (ordinary silk cloths), 'Chatak Dhoti,' Matak Dhoti (silk cloths of Assam), 'Āgun Pātsāḍi' and 'Megh-Dambur,' 'Meghnāl' and 'Gangājali Sāḍi.' Gangājali Sāḍi means that the cloth looked white and transparent like the water of the Ganges on account of its fineness and superior quality. Similarly Meghnāl Sāḍi of the Maynāmati songs and Meghadambur Sāḍi of Kavikankan were named after the blue cloud for the resemblance of their colour with that of the cloud. 'Matakdhoti' had perhaps some similarity with the Matkās of Assam. In all probability these Matkās used to be imported into Bengal from Assam. There were embroidery and picture decorations in garments.[2]

A close study of the old Bengali literature makes it clear that the mode of wearing cloth and Pāgri was just the same in our country as is now prevalent in the up-country districts.

CHAPTER IV

ORNAMENTS

The use of the following ornaments was in vogue in Bengal, many of which have now grown obsolete:—

(*i*) *Sinthi.*[3]—This is still used in some parts of Bengal and nearly everywhere in India by women as a head ornament. It

[1] See among others the Manasāmangal poems by Jagat Jibau Ghosal (17th century) for sāḍis of very fine fabric with such picturesque names as Yātrāsid (auspicious starting), 'Mānjā Phul' (a kind of white flower), etc.

[2] See Bansidās (D. Chakravarti's edition),

'উত্তম উড়নী দিয়া সর্ব্বাঙ্গ ঢাকিয়া।
তাতে যত লিখিয়াছে শুন মন দিয়া॥'

(Her entire frame was covered in a fine wrapper with beautiful paintings on. Listen to what these paintings were about.)

[3] See the Padāvali by Govinda Dās—Avisār,

'চিত্রা সময় জানি, সুবর্ণের সিঁথি আনি, যতনে দেয়ল সিঁথিমূলে' ঃ

(The maid Chitrā brought a golden Sinthi and put it tenderly on Rādhā's head between the hair-parting.)

consists of three gold strings two of which run from ear's end joined at the centre by another which goes straight along the hair-parting. In Rajputana it is called 'Sirbandi.'

(*ii*) *Beshar.*[1]—In rural Bengal it is called 'Nākchhabi'—a nose-ornament. It resembles a small semi-circle and is worn by women.

(*iii*) *Kundal.*[2]—A kind of earring formerly used by both sexes. It was generally made of gold inlaid with pearls. In Bengal the original form of this ornament has been modernised and is now known as earring. The old and original form, however, still exists in some parts of Nothern India.

A special kind of Kundal was known as the 'Makar-Kundal' as it resembled the head of Makara—a kind of sea-fish. Latterly, however, this pattern was replaced by others—but the name itself was not changed. The present Bengali epithet 'Mākri' given to a particular kind of earring may have derived its name from this 'Makar-Kundal.' A peculiar kind of Kundal which is now used in the up-country districts is commonly known as 'Chowdāni.' It was once used in Bengal, but not in our days.

(*iv*) *Kānbālā.*[3]—An ear-ornament otherwise known as 'Chakrāvali,' worn on both ears. Chakra or Chāki was a sort of

[1] See Padāvali by Jnānadas,

'নাসার বেশর পরশ করিয়া ঈষৎ মধুর হাসে' :

(She touched the nose-ornament Beshara and smiled a graceful smile.)

[2] See the Gitaratnāvali' (B. Saha's collection), p. 70,

'শ্রবণে কুণ্ডল সাজে' :

(The Kundals or earrings decorate the ears), also p. 97,

'অলকা তিলকা ভালে, কানে মকর কুণ্ডলে' :

(On the forehead there were the marks of Alakā and Tilakā and in the ears the Makar-kundals.) See also Kasi Dās's Mahābhārata, Virāt Parva, p. 542, D. C. Sen's edition,

'মকর কুণ্ডল দিল কবচ উত্তম' :

(a crown, a pair of Makar-Kundals and an excellent armour were given to him); also *ibid*, Adiparva, p. 38,

'পৌষ্য নৃপতির স্ত্রীর শ্রবণ কুণ্ডল' :

(The earrings of the wife of king Pousya.)

[3] See the Manasāmangal poems by Jagatjiban Ghoshal,

'উপর কর্ণে চাকি পরে লম্বা কর্ণে বলি। তাহার মধ্যে শোভা করে হীরামঙ্গল কড়ি' ॥

earring exquisitely decorated with pearls and fixed on to the upper part of the ear. The 'Vali' practically covered the whole ear surface. Between the 'Chakra' and the 'Vali' another ornament known as 'Hirāmangalkaḍi' or 'Madan-Kaḍi' was also used. Chakrāvali is still worn by Marwari women of Rajputana.

(*v*) *Hār.*[1]—A necklace. Frequent mention of a peculiar kind of Hār known as Sateswari is to be found in our old literature. Along with Hār another sort of neck-ornament was used, known as 'Gribāpatra.[2] It fitted the neck closely above the necklace, like a collar. It is still used in Bengal and is known as 'Chik' and 'Hānsuli.' At present the use of 'Hānsuli' has been rather limited as the lower grades of the Mahomedans only seem to favour it. But this ornament was used by Hindu ladies in ages long gone by as will be evident from stone images of gods and goddesses with Hānsuli on, built in the 11th and 12th centuries and even earlier.

(*vi*) *Angada.*[3]—All ornaments for the upper parts of the arms were known as Angada. A few of these are noticed below :

(On the upper part of the ears there were the 'Chakis' and below them lengthwise were the 'Valis' and in the middle the 'Hirāmangal Kaḍis') See Chandidās's Sri-Krishnakirtan, p. 112,

'কাণের হীরাধর কড়ি' ঃ

(The ornament Hirādhar Kaḍis of the ears.)

[1] See Chandidās's Sri Krishnakirtan, p. 88,

'ছিণ্ডিয়া পেলাইব বড়াই সাতেসরি হার' ঃ

(I shall tear off the Sateswari necklace, old lady.) See the Pada by Bhupati Singha,

'বেসর খচিত সতেশ্বরি পহরিল' ঃ

(She wore the nose-ornament Beshara and the necklace Sateswari.)

[2] See Bansidās's Manasāmangal, 'Ushār-Besh,'

'গলে পরে গ্রীবাপত্র মুকুতার বলী' ঃ

(She put on her neck the ornament Gribāpatra which was studded with pearls.)

[3] See Jadunandan Dās, Sri Rādhikār Beshabinyās,

'স্বর্ণাঙ্গদভুজে দিল বিশাখা আনিয়া' ঃ

(The maid Bisākhā brought the gold armlet 'Angada' and put it on Rādhā's arms.)

(*a*) *Tāḍ.*[1]—A pair of plain gold bands about two inches in breadth used on the upper parts of the arms. This ornament was not only used by women but by men as well. Tāḍ is otherwise known as **Tāgā.** Its use is now almost obsolete in our country, it having been replaced by 'Ananta' (a nicely decorated armlet).

(*b*) *Keur.* [2]—An ornament for the arms used by both the sexes. 'Keur' was a sort of gold band with nice decorations on. It is a very old ornament and a reference to it is to be found in old Sanskrit works written when the Aryans did not yet settle in Bengal and Assam.

(*c*) *Bāju.* [3]—An armlet otherwise known as 'Bājubandha.' In the villages of Bengal, especially of Eastern Bengal, it is still continuing its existence though feebly amongst women and children; formerly it was made use of by adult males too. It is generally worn high up on the right arm in Bengal but it is sometimes used on both the arms in Behar and U. P. Bāju is a sort of thick band of gold with engravings on and tied to the arm with a string.

(*d*) *Māduli.* [4]—An armlet. It is almost similar to Bāju with this difference that it contains more decorative work and is less thick.

[1] See Bansidās, p. 312.

'তাড় বাহুটী আর সুবর্ণেরচূড়া'

(The ornament known as Tāḍ or armlet, Bāhuti or bangles and gold Chuḍ or a type of bracelet). See also Gitratnāvali, the Chandikāvva by Mādhavācharyya etc., etc.

[2] See 'Govinda Chandrer Git, Slokas 704-05,

'খসাইয়া ফেলে হার কেয়ূর কঙ্কণ' :

(She put off the necklace Hār, the armlet Keur and the bangles Kankan.) See also Brindāban Dās's Murali Sikshā,

'তুমি লহ কঙ্কণ কেয়ূরী' :

(You do take the armlets and the bracelets)

[3] See Chandrāvalir Punthi (Battalā ed.),

...'তাড়, বাজু.....কেয়ূর, কঙ্কণ, পরাইল দুই হাতে ভুবন মোহন' :

(The two arms were decorated with the ornaments Tāḍ, Bāju,. . ..Keur and Kankan.)

[4] See Jadunandan Dās's Sri Rādhikār Vesavinyās,

'সুবর্ণ মাদুলি অতি শোভিয়াছে করে' :

(The gold armlets added to the beauty of the arms.)

Other names of this ornament is Tābij (by which name it is known in Eastern Bengal) and Kabach. Another variety of this ornament is known as Jasham which consists of double rows of Māduli and is more commonly used in the rural parts of Bengal.

The order of the different types of Angada by which they are to be worn is summarised below: First (nearest armpit) is worn Māduli, then comes Bāju, then Tāḍ and Jasham and finally Ananta closes the list.

(*vii*) *Ratnachuḍ.*—A bracelet. It has three distinct parts each having a different name of its own. The upper part is known as সরল (Sarala), middle part as চুড় (Chuḍ) and the forepart as কঙ্কণ (Kankan).[1] Sometimes this Kankan, otherwise known as Balaya or Bālā, was used as a separate ornament. In Saral a ring of pearls or precious stones was set. Adorned with floral decorations the Chuḍ was a nicely worked ornament. Chuḍ without Saral and Kankan are still used. A kind of bracelet known as Bāhuti [2] was also used. It is even now favoured by the up-country women. A kind of shell-bracelet (Lakshmibilās Śankha [3]) which was once popular has now become out of fashion. With Kankan was connected a pair of precious strings and another ornament for the back of the palm, known as Hātpadma. In the middle of the back of the palm was set an exquisitely beautiful ruby in a golden lotus with open petals. This was fixed to the rings worn on all the fingers.

(*viii*) *Khaḍu.*—Silver anklets. A peculiar kind of this ornament, known as Magar-Khāḍu,[4] was in use among both the sexes. In Chandidās another kind of Khāḍu has been mentioned. It was called

[1] See Krittibāsi Rāmāyana,

'শঙ্খের উপরে সাজে সোণার কঙ্কণ' ;

(Above the shell-bracelets adorned the gold bracelets or Kankan.)

[2] and [3] See Bansidās,

'কণক বাহুটী করে লক্ষীবিলাস শঙ্খ পরে,' ;

(Gold Bāhuti or bracelet was worn on the wrist above the Lakshmibilās Sankha or shell-bracelet.)

[4] See Bijay Gupta,

'ছোট ছোট বালকের মগর খাড়ু পায়' ;

(Little boys wore anklets known as Magar-Khāḍu.)

'Malla-Toḍar.'[1] The name 'Toḍar' gives rise to the supposition that it might have been introduced By Rājā Toḍar Mall who was for some time Akbar's Governor of the Province (13th century). It might also have derived its name from the Mallas of Birbhum who used the ornament. The wrestlers in those days, used a kind of anklets when they were out for a contest. 'Mal'—a kind of close-fitting 'Khāḍu' or anklets, may have derived its name from these Mallas. We find mention of Bankarāj Pātā or Bānkpātā-Mal [2] in our old literature.

(*ix*) *Unchhat.*,[3] otherwise known as Ujjhhatikā. It is now popularly known as 'Pāshuli.' It was a kind of toe-cap. In our old literature frequent mention of Ujjhatikā is found.

CHAPTER V

Culinary Art

The culinary art once attained a high degree of perfection in this country. It was systematically cultivated by the Hindu women and even the ladies of rank took pride in cooking and thus we find a Sanakā [4] and a Khullanā [5] preparing a hundred palatable dishes.

[1] See Chandidās—

'রাতুল চরণে মল্লতোড়র' :

(On the beautiful feet adorned the anklets Malla-Toḍar.)

[2] See Chandrāvalir Panthi p. 199,

'বাঁকপাতা মল পায়' :

(There were anklets in the feet known as 'Bānkpātā-mal.') Rādhā in her fine frenz was described in a Pada by Bansibadan to be wearing Bankarāj Pātā on the breast.

'হিয়ার উপরে পরে বঙ্করাজপাতা' :

(Rādhā wore the anklets Bankarāj-pātā on the breast through mistake, owing to her excess of emotion for Sri Krishna.)

[3] See Jadunandan Dās's Srirādhikar Vesabinyās,

'পায়ের উপরে রত্ন উজ্ঝটিকা দিল' :

(On the toe was put the toe-caps made of precious gems.)

[4] See Sanakā's cooking in the Manasamangal poems of Bansidās (16th century)

[5] See about Khullanā's cooking in the Chandikāvya of Kavikankan Mukundaram (16th century). There are very interesting items of curries in various places of the work.

In ancient time a knowledge of the culinary art in a girl was more appreciated than any other attainments. It was owing to the peculiar condition of domestic life in the Hindu society and the part allocated in it to women that they acquired efficiency in the art and learnt how to cook innumerable articles of food. Due regard was always paid to the ordinary rules of hygiene in preparing these dainties.

In 'Dāker-Vachan,' [1] composed between the 8th and 12th centuries A.D., we find mention of curries, plain and simple, being composed mainly of vegetables, bearing a striking contrast to the subsequent rich dishes of meat and onion of the Mahomedan period. In Mānikchandra Rājār Gān and in other writings of the Pre-Mahomedan period mention of fifty dishes was very common.

Some of the meals of this period, the preparation of which seems to be forgotten in our days, are enumerated below:

(*i*) *Sitā Misri.*—It was a sort of crystallised sugar made by the following process.[2]

"The juice of sugarcane is boiled first. At that stage dregs appear on the surface in the form of froths, which when removed the sugar gets condensed. It is known as 'Raja Guḍ.' It is then made into 'Modakguḍ' or ball-shaped raw sugar which again is kept in a jar having an opening at the bottom. Through this hole the liquid portion leaks out. At this stage the upper part of the jug is broken and a kind of vegetable leaf commonly known as 'gānj' is put on the surface. Owing to the chemical action, the raw ingredients of sugar become more refined. But it is yet somewhat coarse and is called 'Bhurā.' At this stage, the sugar is kept in the sun for some time and is then boiled with milk. This process makes

Among other instances may be mentioned Surikshā's cooking in Mānik Ganguli's Dharmamangal poems and Sitā Devi's cooking in Chaitanya Charitāmrita (Madhyakhanda).

[1] See Randhan-Prakaran of Dāker Vachan.

[2] See Sahaja Upāsanā Tatwa, M.S. (C. U.).

দেখ যেন ইক্ষুরস দ্রবের সমান।
অনলের জোগে দেখ হয় বর্ণ আন॥
দেখ জেন ইক্ষুদণ্ড নিষ্পীড়ন করি।
অগ্নী আবর্ত্তন করে অতি যত্ন করি॥

the sugar milk-white purging it of the coarse substance. This refined sugar is again boiled and made into small balls which now become very white and are called the 'Olālāndu' or 'Lāddu.' These are boiled once more with milk and formed into lump which finally boiled with milk and now the preparation of 'Sitā-misri or the yellow-coloured crystallised sugar is complete."

(*ii*) '*Indramithā*' and '*ālfā*' seem to have been once very common. They are not perhaps known now. 'Indra-mithā' was an article of food (a sort of sweet) of great delicacy.[1] 'Ālfā' was a kind of sweetmeat mentioned in the Padāvali of Chandidās.

(*iii*) *Goat-meat* with the soft roots of banana plant were made into a relishing preparation.[2]

(*iv*) '*Gāḍarer Chām*' (Sheep-skin) seems to have been a dainty. In the Manbhum district even the upper classes, we hear, take the skin

অনলের জোগেতে বিরাগ জে উঠয়।
বিরাগ নির্ম্মল হএ রজগুড় হয়॥
সেই গুড় মোদকেতে লুন লৈয়া জায়।
গাঞ্জ জোগ দিয়া পুন বিকার ঘুচায়॥
গাঞ্জ জোগ শাঙ্গ হৈলে ভুরা তার নাম।
যুর্য্যাগ্নীতে পুনরোপী করএ যুখান॥
অনলে চাপায় পুন দিএ দুগ্ধ জোগ।
নির্ম্মলতা হয় তার জায় গাদরোগ॥
যুক্রবর্ণ হয় রশ নাম তার চিনী।
তদ্ভপর ভিআনেতে ওলালাগুখানি॥
পুন দুগ্ধ জোগ দিএ তাহার ভিয়ান।
অখণ্ড লড্ডুকা হয় মিশ্রী তার নাম।
তার পর দুগ্ধ জোগে ভিয়ান করয়।
সীতা মিশ্রী নাম তার নির্ব্বিঘ্নতা হয়॥
অখণ্ড মধুর রশ শিতামিশ্রী নাম।
হেমবর্ণ্য বরিষন হয় অবিরাম॥

[1] *Vide* Mānikchandra Rājār Gān.

[2] Bijay Gupta, p. 94.

of sheep, goat, etc., down to the present day as they relish the fat beneath the skin.[1]

(*v*) 'Dugdha-Kusmānda,' or a combination of milk and gourd which is now perhaps an obsolete dish though once very popular.[2]

(*vi*) 'Dugdha-Kusumbhā' was another kind of favourite preparation.[3] It consisted mainly of milk and *Cannabis sativa* or opium. It still constitutes a dainty in Rajputana where it is taken on occasions of festivity.

CHAPTER VI.

PASTIMES.

The old literature of Bengal abounds with interesting descriptions of pastimes proving the masculine vigour and joy of rural life. Among these pastimes the *Chaugān* play attracts our attention as being specially favourite with the upper sections of our community.

The game of Chaugān used to be played with much vigour.[4] The word Chaugān is of Persian origin, from 'Chau'-a crooked stick and 'gān'-a field. The Chaugān was played on horseback

[1] *Vide* Bijay Gupta, p. 94, and Bansidās, p. 289.

[2] *Vide* Kavikankan, p. 157.

[3] *Vide* Bhāratchandra's Annadāmangal, p. 73; also *vide* History of Bengali Language and Literature, p. 390.

[4] See Bansidās, p. 276, and Ālāol's Padmāvat, pp. 121-122:

সিঙ্গল দেশের যত রাজার কুমার।
বাছি বাছি দিল মক্ষ দশ আছোয়ার॥
রত্নসেন দিগ হস্তে জুগি দশজন।
চৌগান খেলিতে হৈল অশ্বে আরোহণ॥
দুইদিগে চারি খুটী আনিয়া গাড়িল।
মদ্দভাগে আরোপিয়া গাড়িয়া ফেলিল॥
মিশামিশি হই সবে লাগিল খেলিতে।
সকলে চাহন্ত নিতে আপনার ভিতে॥
সিঙ্গলের অশ্ববার গুলি নিতে চায়।
চৌগান বৈলিয়া জুগি গোলা পল্টায়॥

with stick and ball. It was played just in the same way as the Polo of the present day. Moreover, the polo originally came from Persia where the *Chaugān* used to be played and it may, therefore, be

গেরুয়া বেড়িয়া শব্দ উঠে ঠনাঠনি।
দ্বারে থাকি দেখে রত্নসেন নৃপমণি॥
ইষৎ হাঁসিয়া নৃপ আসিয়া তুরিত।
গেরুয়া মারিয়া দিল সিঙ্গলের ভিত॥
সিঙ্গল কুমার সবে খেলায় চতুর।
বেলাবারি হানিয়া গেরুয়া কৈল দুর॥
পুনি বলে খেরি খেলি অশ্বগুলি সঙ্গে।
শীঘ্রকরি নিয়া যাও নিজ মনোরঙ্গে॥
পাছে পাছে অশ্ব লইয়া ধায় জুগিগণ।
ফিরাইতে নারে কেহ করিয়া গর্জ্জন॥
জুগিগণ বলে গুরু কি কর্ম্ম করিলা।
আপনা হস্তের খেরি পরহস্তে দিলা॥
তুমি হেন মহারাজ সংসার মাজার।
আমা হৈতে গুলি নিতে শক্তি আছে কার॥
হাত হৈতে গুলি গেলে আর নাহি আশা।
গুরুর চরণ মাত্র করিও ভরসা॥
আমরা না জানি হেনমতে খেলা ভাও।
আপনে করিয়া জত্নে গুলি পালটাও॥
গুরু বলে শুন শিষ্য আমার বচন।
দড়ভাবে খেলা খেল হৈয়া একমন॥
পরহস্তগত যদি হইল গেরুয়া।
ফিরাইতে পারে সেই সে খেরুয়া॥
শিষ্যগণ সঙ্গে নৃপ এতেক করিতে।
সিঙ্গলের পরে গুলি নিল নিজ ভিতে॥
তখন সকল লোকে মনে ভাবিলেক।
সিঙ্গলের অশ্ববারে খেলা জিতিবেক॥
খুটার নিকটে নিজ করিবারে হাল।
জুগিগণে গেরুগুলি রুখিল তৎকাল॥

surmised that it took the name of polo (from Tibetan 'Pulu') afterwards, as it travelled down to India *vid* Tibet. Bengal is directly indebted to Manipur for its introduction into this country.[1]

In Ālāol, we get the following description of the same, which gives a clear idea of the manner in which it was played.

Two parties, each consisting of ten riders, stood facing each other. It was the aim of each party to drive the ball through the goal-posts of the other. At first one party stood on the defensive. When the latter approached the goal of the former (দুই খুটি মধ্য দিয়া গুটি নিতে চায়) with hard riding, the defending party lost courage. But their goal was saved by the tact and agility of the goal-keeper (King Ratna Sen) who sent the ball to the opposite party with a hard stroke from his stick. The opponents received the ball in right earnest and again furiously charged the other party when it seemed that none could save the situation. Suddenly the goal-keeper checked the progress of the ball and with a wonderful dash charged his opponents

দুই খুটি মদ্ধে দিয়া গুলি নিতে ছায়।
চৌগান ঠেলিয়া জুগি গুলি পাল্‌টায়॥
খুঁটি বেড়ি দুইদলে করে হানাহানি।
রত্নসেন নৃপ তবে মনে মনে গুণি॥
বিজলি চটকে প্রবেশিয়া মহামতি।
চলিল গেরুয়া লই অলক্ষিত গতি॥
বেলাবারি হানি গুলি দূরে চালাইল।
পাছে পাছে শিঘ্রগতি অশ্ব দাবাইল॥
আর পাছে অশ্ববার ধাইল তুরিতে।
নৃপতির শিক্ষা কেহ না পারে লক্ষিতে॥
ছাটের উপরে ছাট অশ্বরে চাপিয়া।
চলিল নৃপতি তবে গেরুয়া লইয়া॥
ডাইনে রাখিয়া গুলি বলে খেলাখেলি।
শীঘ্র দূর কল্ল রত্নসেন মহাবলি॥
লঙ্ঘিতে নারিল সিঙ্গলের অশ্ববার।
এইমতে জুগিয়া জিনিল তিনবার॥

[1] *Vide* Encyclo. Brit., Vol. 22, pp. 11-12.

and in their confusion sent the ball right through their goal-posts, thus defeating the assailants with much smartness and vigour."

The main point to be considered in the game is the throwing of the ball through the opponent's goal-posts.

In polo the same thing is also done. The way in which one party defeated the other as mentioned in the Padmāvat (চলিল নৃপতি তবে গেরুয়া লইয়া) shows that in Chaugān there was no offside as in the Polo. As from Chaugān perhaps comes the Polo, so from the Polo perhaps comes the Hockey, Golf and Cricket.[1] The Chaugān might also be the origin of our indigenous 'Dhopbāri,' a sort of rural hockey played with a crooked bamboo-stick and ball in the district of Mymensingh.

(*ii*) Next to Chaugān, the Geru play may be mentioned. Geru means a ball (Prākrit, গেণ্ডুঅ). It used to be played by a number of boys in which the throwing of the ball by a party against the opponent and the catching of it by the latter constituted the main point of interest.[2] The play is still current in Bankura and some other parts of West Bengal.

(*iii*) There was once a game current in Bengal by the name Duāpati. The play might be the same as or similar to the 'Dābākhelā' of the present day.[3]

(*iv*) The Dharmamangal poems give us a clue of the method of wrestling and its popularity in bygone days.[4]

[1] *Vide* Encyclo. Brit., Vol. 22, pp. 11-12.

[2] See the Padāvali by Chandidās, 'ফুলের গেরুয়া লুফিয়া ধরয়ে সঘনে দেখায় পাশ। C. U. MS. No. 292, Fol. 2.

[3] See Mainamati songs (11th-12th Century).

[4] *Vide* The Dharmamangal poems of Ghanarām, pp. 79-82 :

বচনে বচনে বড় বাড়িল বিবাদ।
ভূতলে আছাড়ি ভূজ ছাড়ে সিংহনাদ॥
আড়ম্বরি করি দোঁহে মাখে বীরমাটী।
অমনি উঠিয়া লম্ফ উলটি পালটি॥
মালসাট মারি দোঁহে হাতাহাতি যুঝে।
ঘোর শব্দ উঠিছে আছাড়ে ভুজে॥
মত্ত গজে গজে যেন বাজে মহাযুদ্ধ।
রণ-ধূলে অবনী আকাশ হ'ল রুদ্ধ

In wrestling it had always been the custom to rub the body of the wrestler with the dust of the play-ground, this dust being known as 'Birmāti.' The 'Mallas' or wrestlers would after tightening the cloth round their loins and a rope known as the 'wrestlers' rope (Malldore) round their heads rub their bodies with this grey dust before the game starts. There were professional wrestlers generally recruited from the lower class people as the line কৃষ্ণ কলেবর কান্তি মূর্ত্তিমান কাল would signify. Here is an account of a wrestling contest described by this poet.

"At first the combatants sat crouching, exhibiting the strength of their arms, in the course of rubbing their bodies with earth, and all the time kept shouting out challenge to each other (বচনে বচনে বড় বাড়িল বিবাদ। ভূতলে আছাড়ি ভুজ ছাড়ে সিংহনাদ). Then suddenly both of them jumped up and caught hold of each other's arms. Each tried hard to subdue his adversary and in the attempt of doing so every part of the body of each came in close contact with that of the other. Interlocking of arms, knocking of heads, all formed parts of the contest (বাহু কসাকসি রুষি ঠেলা ঠেলি যায়। চঞ্চল চরণ গতি ছান্দে পায় পায়). After hard struggle, one of the wrestlers (Lausen) got the better of the other whom he knocked down upon the earth and sitting upon his breast continued dealing heavy blows on him till he spat blood."[1]

সেইরূপ সমরে সমান রোষারুষি।
মহাযুদ্ধে মাথায় মাথায় ঢুসাঢুসি॥
বাহু কসাকসি রুষি ঠেলাঠেলি যায়।
চঞ্চল চরণ গতি ছান্দে পায় পায়॥
অমনি আছাড়ে ফেলে সিংহনাদ ছাড়ি।
পাছাড়ি পাছাড়ি ভূমে যায় গড়াগড়ি॥
সেন মহাপ্রতাপ মালের বসে বুকে।
মুটকি মারিতে তার রক্ত উঠে মুখে॥

[1] See the Dharmamangal poems by Sitārām Dās, C. U. No. 2471, F. 10, for an elaborate description of wrestling. See also the Dharmamangal poems by Manik Ganguli (ed. by H. P. Shastri and D. C. Sen), pp. 44-45.

CHAPTER VII.

Warfare.

The picture of a Bengali soldier as depicted in our old literature, such as the Sivāyanas, the Chandikāvyas, the Dharmamangals and the Manasāmangals, is a curious medley, combining the elements of the Hindu as well as of the Mahomedan periods. This was due to the circumstances that the majority of the writers who have left us accounts of warfare of the Hindu period lived at a time when the country was under Mahomedan rule. Undoubtedly the older traditions continually changed as is apparent from the works of writers of successive ages, and the oldest specimens of the abovenamed works are now almost rare in the process of continuous modernisations of the songs, as they were sung from generation to generation. As regards weapons used by warriors we have quite a long list of them in these works including among more formidable ones the various kinds of fire-arms, 'Raibāns,' battle-axe, etc.; along with these there is, of course, a mention of other ordinary and perhaps primitive weapons of warfare.

Some of the old weapons are described below :—

(1) *Parasu.*—A kind of battle-axe and was perhaps in use in ancient warfare from time immemorial. Another slightly different type of this weapon was also used and was known as 'Paraswadha.' The Parasu consisted of a 'thin stick with a broad mouth.' The shape of the axe attached to the handle resembled a crescent. Daboosh, a peculiar type of Parasu was mentioned as being largely in use in ancient battles.[1] The battle-axe used locally was known as the 'Tāngi.' The Aryan Parasu, inspite of some similarity, must have been originally different from the non-Aryan Tāngi,—the very non-Sanskritic name of the axe Tāngi carries its history with it. More than one Tāngi was used by a warrior who used to

[1] See Sivāyana by Rāmeswar, p. 65.

'ডাবুশ, পট্টিশ, পরশু, পরশ্বধ খরতর বরিখৈ ভূরি' :

(The weapons Dāboosh, Pattish, Parasu and Paraswadha were all hurled against the enemy.)

fasten them to his belt, in his left.[1] In Europe, the battle-axe was a very popular weapon in the middle ages.[2]

(2) *Yamadhār* (*Sanskrit* '*Yamadrangstra*'?).—A kind of double-edged (from 'Yama' both) heavy sword, very popular in ancient time. It used to be kept hanging by a warrior in his belt on his right.[3] A type of Yamadhār was known as the Pattish which had a very sharp point.[4] Pattish has been described in Gustav Oppert's celebrated work known as 'The Weapons, Army Organisation and Political Maxims of the Hindus,' p. 21, as a battle-axe.

[1] See the Dharmamangal poems by Ghanarām, p. 202 :

'বাম দিকে যুগল টাঙ্গি যম অবতার' :

(On the left there were a couple of fierce-looking battle-axes.) See also the Dharmamangal poems by Rāmnārāyan, C. U. MS. No. 2454, F. 13,

প্রবল পুরুষ বান্ধে টাঙ্গি খান তিন

(The Commander tied three huge battle-axes to his waist.)

[2] See Encyclopaedia Britannica, Eleventh Edition, Vol. 2, p. 585 (Arms and armour). In ancient Rome also the Roman Lictors always carried axes with them.

[3] Sometimes more than one Yamadhār were used by a single person in a battle. See the Dharmamangal poems by Ghanarām, p. 202,

'ডানভাগে বান্ধিল যুগল যমধার' :

(The warrior tied a pair of Yamadhārs to the belt on the right side.) See the Dharmamangal poems by Rāmnārāyan, C. U. MS. No. 2454, F. 2 and 12. The ancient Roman soldiers used this double-edged sword 'We gather from the monuments that in the 1st century B.C. the Roman sword was short, worn on the right side (except the Officers who carried no shield), suspended from a shoulder-belt (balten) or a waste-belt (Cingulum) and reaching from the hollow of the back to the middle of the thigh, thus representing a length of from 22 inches to 2 feet. The blade was straight, double-edged, obtusely pointed on the Trajan's column (A.D. 114); it is considerably longer and under the Flavian Emperors, the long single-edged Spatha appears frequently along with the short sword' *Vide* Encyclo. Brit., Vol. II, 11th Ed., p. 585. The sword found at Micenae are two-edged, of rigid bronze and as long as three feet or even more; from representations of battle it would seem that they were perhaps used for thrusting mainly. *Ibid*, p. 583. In the Phalanx of the Macedonians the sword that was used was straight, sharp-pointed, short, sometimes less than 20 inches and rarely more than 2 feet long. It was double-edged and used for both cut and thrust. *Ibid*, p. 584.

[4] For a description of Pattish, see Sivāyana by Rāmeswara, p. 65,

'পরশু পট্টিশ কার পেটে দিল পিঠে' :

(The Parasu and Pattish were thrust into the abdomen of the enemy by his opponent during the battle.)

(3) *Nenja.*[1]—A short spear or javelin. It was wielded by the right hand. (*Cf.* the Roman Pilum or javelin. It was carried on an iron rod of about 20 inches in length.)

(4) *Sulfi or Sool.*—A spear. A spear with three points was known as Trisul or trident.[2]

(5) *Raibāns.*—A kind of regulation Lathis and was once a favourite accompaniment of the infantry known as the Paiks.[3]

(6) *Karmook.*—A bow—one of the most important weapons of ancient warfare. The quiver was commonly called Tarkach (*cf.* Sanskrit Tunir.[4]) There was a peculiar sort of arrow called

[1] See the Dharmamangal poems by Rāmnārayan, C. U. MS. No. 2454, F. 13,

'ডানি হাতে নিল নেঞ্জা বাঁম হাতে বাঁশ' :

(The warrior took in his right hand a Nenja and in his left hand a Rāibāns.)

Cf. the Assagai or Assegai of the South African tribes. It is 'a slender spear of hard wood, tipped with iron, some for hurling, some for thrusting with—used by the South African tribes, notably the warlike Zulus.—Chambers, T. C. Dictionary' p. 55 See also the Chandikāvya by Kavikankan Mukundarām, p. 46,

'ফোঁটা দিয়া বিন্ধে রেজা, ছাড়িতে শিখায়ে নেঞ্জা, চামের টোপর শোভে শিরে' :

(The warrior wore a leathern headdress and marked a spot at a distance for practising the art of hurling a javelin.)

[2] See the Chāndikāvya by Mādhavāchāryya,

'অস্ত্র শুল্‌ফি হাতে' :

(The warrior had a spear in his hand together with other weapons.) The spear was much in use among the Mycenaeans. In the Mycanaean age 'the Mycenaean soldiers carried apparently a bronze spear.....It would appear only the chief warriors used spear and shield.' See Encyclo. Brit., 11th Ed., Vol. 2, p. 583.

In ancient mythology of Greece and Rome 'a kind of sceptor or spear with three prongs, the common attribute of Neptune, the deity of the Ocean' (Roman Antiq.). "A three-pronged spear used in the contest of gladiators by the Rotiarius."—W. Smith (From Webster's Dictionary).

[3] See the Chandikāvya by Kavikankan Mukundarām, p. 94,

'বাজন নূপুর পায় বীরঘটা পাইক ধায় রায়বাঁশ ধরে খরশাণ' :

(The infantry wearing jingling Nupuras on their feet and wielding strong Rāibāns with their hands rushed on bravely to the battle.) In Roman antiquity a Lictor was an officer who bore an axe and fasces or rods, as ensigns of office."—Webster.

[4] See the Dharmamangal poems by Rāmnāryan, C. U. MS. No. 2454, F. 13,

'তীরসহ তরকচ তূরিতে বান্ধে ভাল' :

(The warrior hastily equipped himself with the quiver, full of arrows.)

Chiār.[1] Though literally the word means an arrow with four points it really was applied to any arrow with more than two points. An arrow with two points was known as the Doār.[2] Chiāri is a dim unitive form of Chiār, signifying a small arrow. In a battle the bow used to be carried by a soldier in his left hand.[3] Like the battle-axe, the bows and arrows were once very popular in Europe also. The cross-bowmen of England were once very famous in Europe.[4]

(7) *Bhusandi or Musandi.*—An octagon-headed club. It had 'broad knots, a broad body, and a good handle for the fist.' It was three cubits in length and of the colour of a cobra. It was noted for two chief movements, namely, 'Jerking and the whirling.'[5]

[1] See Ghanarām, p. 202,

'চক্‌চক্ চিয়াড়ে পাটন পাঁচ শির' :

(The dazzling arrow had five points.)

[2] See Kavikankan, p. 96,

'দোয়াড় চিয়াড় বাণ করবাল খরশাণ' :

(There were arrows with two points and with many more and sharp swords.)

See also Kavikankan, p. 52,

'মহাবীর চিয়াড় চাপাড়ে করে রণ' :

(The hero fought with a bow and arrows.) Chāpar meant a bow. See also Krittibasa's Rāmāyana, Uttarākānda, p. 151, Sāhitya Parisat Ed.)

'দুর্জ্জয় ধনুক হাতে কাণ্ড যে চিয়াড়ি' :

(The hero had an invincible bow in his hand and arrows all with more than two points in his quiver) Kānda or Kār in the sense of arrow is still current in the colloquy of the districts of Bankura, Manbhum and Burdwan. See also Kavikankan, p. 96,

'জোড়ে চৌখণ্ডিয়া কাঁড়' :

(Fitted an arrow with four heads.)

[3] See the Dharmamangal poems by Rāmnārayan, C. U. MS. No. 2454, F. 12,

'বাম হাতে বিরাজিত বিচিত্র কার্ম্মুক' :

(In the left hand of the hero there was the nice-looking bow.)

[4] See Encyclo. Brit., 11th Edn., Vol. II, Arms and Armour.

[4] And [5] See "The Weapons, Army Organizations and Political Maxims of the Ancient Hindus" by Gustav Oppert. See also Nitiprakāsikā (a Sanskrit work by Vaisampāyan, IV slokas 51. See also Kavikankan's Chandikāvya, p. 75,

'ভূষণ্ডী, ডাবুশ খরশান' :

There was also another kind of this club which was of a crooked shape. We find in Gustuv Oppert's work (p. 13) the following translation from the Nitiprakasika by Vaisampāyan: 'The Bhindivāla or Bhindipāla (crooked club) has a crooked body; its head which is bent and broad is a cubit long and it is a hand in circumference. It is first whirled thrice and then thrown against the foot of the enemy. When throwing the Bhindivāla, the left foot should be placed in front.'[1]

(8) *Khetaka* otherwise known as Charma or Dhāl—A shield.[2] It was chiefly made of the hide of rhinoceros and buffaloes (*cf.* the Athenian Pelta). These shields were of various sizes and shapes with figures wrought on them.[3]

9. *Pās*—A noose. The ancient Pās or noose afterwards developed into Gāmchhā with which the Thugees, ordinarily called the band

(The weapons called Bhusandi and the sharp Dāboosh.) *Cf.* 'The mace of Areithous, mentioned as a unique example by Nestor' (Iliad, VII, 141). In England after the Norman conquest a knight sometimes carried a mace with him together with an axe. See Encyclo. Brit., 11th Edn., Vol. II, pp. 584-85.

[1] See Gustuv Oppert's "Weapons, Army Organization and Political Maxims of the Ancient Hindus." See also Ramdas Sen's work on the subject named 'Bhārat Rahasya.' See also Kavikankan's Chandikāvya, p. 94 (Bangabāsi ed).

[2] See Kavikankan's Chandikāvya, p. 267 (Bangābāsi ed.),

'খেটকধরা ঘর্ঘরনাদিনী':

(The Goddess Durgā of deep voice was the wielder of Khetk or shield.)

[3] See Rāmnārayan's Dharmamangal, C. U. MS. 2454, F. 12,

'গণ্ডারের ঢাল পিঠে':

(On the warrior's back there was the shield made of rhinoceros's skin). And also Kavikankan's Chandikāvya, p. 75,

'কিনিল মহিষা ঢাল':

(The soldier bought a shield made of the skin of a buffalo.)

See Indian Iconography by Gopinath Rao See also the History of the Art of war by C. Oman and Encyclo. Brit., 11th Edn., Vol. II, Arms and Armours, for details of European shields, from which the following is quoted:—'The round Argolic shields of Greece and the oblong Roman shields introduced with the Punic wars were once very famous. For general reference on these weapons, see also among others, the article named 'প্রাচীন হিন্দু জাতির যুদ্ধ বিদ্যা': by Chāndidās Majumdar Vidyāratna, published in Vikāsh of Falgoon, 1330 B and quoted in the Pravāsi of Āshār, 1330 B.S.

of Gāmchhāmorās, used to strangle their victims. The Pās once formed one of the weapons of the God Varuna and the Goddess Durgā and often figured in the description of the Bengali poets of old.[1]

(10) *Chakra.*[2]—A discus of which the following description is found in Sukraniti and the Nitiprakasika, IV, pp. 47-48. 'The Chakra (discus) has the form of a circular discus with a quadrangular hole in its midst. Its colour is like that of indigo water and its circumference amounts to two spans or ten cubits according to Sukraniti. Five or seven motions are connected with the discus practice. It is most probably identical with the quoit still in use in some Sikh regiments and also among the troops of native Indian Princes." (See Gustuv Oppert's work on the subject.)

(11) *Sakti or Sel.*—A kind of spear or rod.[3] It was considered one of the most important weapons of war in the past. Its size was about two cubits in length ; one end of it was made of metal, representing the head of a lion with open mouth exhibiting the tongue, the chin resting on sharp claws. It had a long handle with small belts attached all over excepting the part reserved for holding. Its colour was black and it attained great velocity when thrown against the enemy. The course it took when thrown was curvilinear and not straight. *Cf.* the Australian Boomerang.

[1] See Kavikankan's Chandikāvya, p. 71,

'পাশাঙ্কুশ ঘণ্টা খেটক শরাসন। অসি চক্র শূল শক্তি কতমত শর।
শোভে বাম করে পাঁচ পঞ্চপ্রহরণ॥ পাঁচ অস্ত্রে শোভিত দক্ষিণ পাঁচ কর॥

The goddess Durgā had the following weapons in her ten arms. she held in her five arms on the left the Pās (noose), the Ankush (elephant-goad), the Ghantā (bell), the Khetak (shield) and the Sarāsan (the bow) and on the right she held the Ashi (sword), the Chakra (disk), the Sool (spear), the Sakti (a kind of iron bar or spear) and Sar (arrows). See also Harirām's Chandikāvya wherein weapons in the arms of the goddess are somewhat differently mentioned

[2] See foot-note on Pās in the above.

[3] See Ghanarām's Dharmamangal, p. 156,

'সর শেল গুলি, আথালি পাথালি সামালে সমরে কালু' ঃ

(A Kālu checked the arrows, Sel and the shots which were showered upon him.) In " The Elements of Hindu Iconography " by Gopinath Rao, Vol. I, Part I, we find Sakti in the form of a spear. It consists of a metallic piece either quadrangular or elliptical in shape with a socket into which a long wooden handle is fixed.' See Ratnamālā, and Gustuv Oppert, p. 13, Nitiprakāsikā, IV, 32-35 and the Visvakosha.

(12) *Tomar.*—The Tomāhawk, of which the following description is found in Gustuv's work: "The Tomar (Tomāhawk) had a wooden body, a metal head, formed like a bunch of flowers. It is three cubits long, has a red colour and is not crooked. It is moved in three ways." A type of Tomāhawk was known as Sābal and another type as Jāthā.[1] These weapons were hurled against the enemy from a distance.

(13) *Mudgar.*—The hammer. The description of this weapon given by Gustuv Oppert in his work (p. 20) is as follows: "The Mudgar hammer is small at the foot-end, has no face, and is three cubits long. Its colour resembles honey, its shoulder is broad and it weighs 8 loads. It has a good handle, is round, black coloured, and is a hand in circumference. It is whirled around and fell things to the ground." Not only the soldiers but the war-elephants too wielded the weapon with its trunk, creating great havoc in the ranks of the enemy.[2] It was a common practice for the Indian war-elephant to use Mudgar during a battle. *Cf.* the hammer of the Scandinavian god Thor.

(14) *Tabak.*—A musket of old type—a blunderbuss. A musketeer was generally known as the Tabaki. A special type of Tabak was known as the Belak (Carbine).[3] The blunderbusses and the carbines were much in use in Europe in the 18th century.

[1] See Kavikankan's Chandikāvya, p. 94,

'মাহুত হাথির পিঠে, শেল সাবল জাঠে, গগন পুরয়ে আড়ম্বরে':

(The Māhut took upon the back of his elephant Sel, Sābal and Jāthā.) See Also Rameswar's Sivāyana, p. 65,

'লোহার মুদ্গর, কুঠার, তোমর, শেল, শূল খরধার ছুরি':

(Among the weapons there were the iron clubs, the battle-axes, the Tomāhawks, the Sels, the Sools, and the sharp daggers.)

[2] See Kavikankan's Chandikāvya, p. 94,

'শত শত মত্তহাতী লৈয়া আইসে সেনাপতি শুণ্ডে বান্ধা লোহার মুদ্গর':

(Hundreds of war-elephants who had iron hammers in their trunk were brought in the battle-field by the Commander of the army.)

[3] See Kavikankan's Chandikāvya, p. 94,

'তবক বেলক বাণ':

(15) *Ankush*.[1]—The elephant-goad. It was a weapon consisting of a sharp metal hook attached to a wooden handle."

War-chariots and war-elephants were amongst the more important paraphernalia of warfare.[2]

Horses employed in warfare were not only of indigenous breed (specially of Sind) but those imported from Persia, Arabia, Camod (Cambodia or Tibet ?) and Turkistan, etc.[3]

The elephants, horses, chariots and infantry were the four principal arms employed in warfare and were known as the Chaturanga (*lit.* four arms).[4] The artillery came to be introduced in later years. From a description of warfare in our old literature it may be surmised that the cavalry used to march first followed by war-chiefs marching ordinarily on trained elephants.[5] The description of the 'Rāibānsiā pāiks' or the infantry armed with *lathis* fighting side by side with the artillery seems queer indeed. The pāiks used to cover their persons with earth to check perspiration before going to a battle

(The musket called Tabak and Belak and also the arrows.) See also p. 95 of the same work,

'রায়বাঁশ তবকী ফরিকাল ধানুকী' :

(The soldiers wielding Raibāns, Tabaks and the bows.) See also p. 76,

'মুটকির তেজ যেন তবকের গুলি' :

(The blow was as effective as a gun-shot.) Farikāl meant a detachment of troops. See also p. 96,

'তবক বেলক কাছে কামান কৃপাণ' :

(There were the soldiers wielding the Tabaks, the Belaks, the cannons and the swords.

[1] See 'The Elements of Hindu Iconography' by Gopinath Rao, Vol. I, Part I.

[2] See Kavikankan's Chandikāvya, p. 94,

'রথেতে জুড়িয়া হয় মহারথী যায় সারি সারি' :

(The war-chariots drawn by horses and ridden by great warriors were marching in line).

[3] See Chandikāvya by Mādhabāchāryya (edited by Chandrakanta Chakravarti), pp. 269-270,

'এরাকি টাঙ্গন তাজী, শুরঙ্গ কামোদাবাজী, সিন্ধুদেশী তুরগ বিশাল' :

(The big horses from Persia, Turkistan, Sind, Camod, etc.)

[4] See the Dharmamangal poems by Ramchandra Bancrjee,

'রাজার আদেশে চলে চতুরঙ্গ দল' :

(By order of the king all the four arms were in readiness for a battle.)

[5] See the description of march of an army in the Dharmamangal songs by Sitārām Dās. C.U. MS. No. 2471, F. 6, 8.

and they wore *nupura* on their feet.[1] Among the infantry we find mention of archers, wrestlers. shield-bearers and clubmen.[2]

The carrying of flags in a battle is mentioned in the Chandikāvya by Mukundaram.[3]

Foreigners were employed in large numbers in the Bengal army. Among them the Telugus were numerous and their services were highly valued.[4]

The Rajputs also formed an important element in the Bengali army.[5]

There was a time when people belonging to different castes used to be employed in warfare, Brahmins not excepted. We find Bramhin troops exhibiting their sacred threads in mortal fear and reciting the *sandhyā mantras* as a sign of umiliation to save themselves from assault.[6]

The Domas though now occupying a degraded position in society were once held in high esteem. They were brave soldiers and one Kaloo Dom, as is found in the Dharma songs was even raised to the status of a general as a reward for his bravery. In those

[1] See the Chandikāvya by Madhabāchāryya, also Chandikāvya by Kavikankan, p. 94.

[2] See the Dharmamangal poems by Ramchandra Banerjee and the Chandikāvya by various authors.

[3] See Kavikankan's Chandikāvya, p. 94,

'সোণার টোপর শিরে, ঘন সিংহনাদপুরে, বাঁশে দোলে চামর নিশান' :

(The king had a crown on his head and he marched amidst repeated loud cheers of the army while the flags and chowries hoisted on bamboos waved by the wind.)

[4] See the Manasāmangal poems by Sashthibar,

'তেলেঙ্গার ঠাট লড়ে বত্রিশ হাজার' :

(Thirty-two thousand Telugu soldiers began the march.)

[5] See Ramchandra Banerjee's Dharmamangal poems,

'রাজপুত চৌহান সিপাই সাজা ঢালা'

(There were the Chauhan Rajput soldiers, armed cap-a-pie with armours.) The word Telugu is perhaps connected with the word Telingana which was once a flourishing Hindu State in the Deccan with its capital at Warangal, now situated in the Nizam's territories.

[6] See the Chandikāvya by Mādhabāchāryya, in which we find that among the Bengali troops, cowed down by formidable opponents, were men of various castes, such as the Brahmins, the Yogis, the blacksmiths and others.

days the women also were good fighters as we learn from the glorious description of Lakhā, a wife of Kaloo Dom and Kaneḍa and Kalingā, wives of Lausen.

Twelve sub-lords [1] or vassals used to accompany a king to a battle-field. (*Cf.* Dodanapalis of ancient Greece. This custom also reminds one of the feudal system of Europe in the Middle ages and the 'Sāmanta' system of Rajputana which is still in vogue.)

The warriors were generally armed to the teeth and protected with armour. (*Cf.* the knight's accoutrement of Europe in the Middle ages and the armours of the Homeric warriors and the warriors of ancient Greece and Rome.)

'পলাইল যোগী পাইক মনে ভয় পায়্যা।
সমরে রহিল কাটামুণ্ড শিরে দিয়া॥
কর্ম্মকার পাইক বলে করিয়া বিনয়।
বীর গুরু বধিতে তোমার ধর্ম্ম নয়॥
নট পাইক বলে বাপু আমি পাইক নহি।
বেগার ধরি আনিছে পরের ভার বহি॥
পলায় বিশ্বাস পাইক ভয় ত্রাস পায়্যা।
আকুল হইয়া কান্দে মুখে হাত দিয়া॥
যতেক ব্রাহ্মণ পাইক পৈতা ধরি করে।
দন্তে তৃণ ধরি তারা সন্ধ্যা মন্ত্র পড়ে॥
যত যত যোগী পাইক দণ্ড ধরি করে।
রক্ষ রক্ষ বলি তারা বিনয়ত করে॥'

—মাধবাচার্য্যের চণ্ডীকাব্য (পৃঃ ৮২)।

[1] See the Dharma songs by Ramchandra Banerjee,

'বার ভূঞা চলে ঘোড়া করিয়া তাজনী,
আচ্ছাদিত ধূলায় গগনে দিনমণি;

(Twelve vassals followed their lord on horseback and the dust raised by the hoofs of the horses concealed the sun from view.)

CHAPTER VIII.

War-Music.

Instrumental music always accompanied an army in former days as it does now all over the world. The two lists of musical instruments, given in the Dharmamangal songs by Ramchandra Banerjee and the Chandikāvya by Kavikankan Mukundarām are more complete than other works on the subject.[1] A few musical instruments which seem to be used in former days but are now made use of mostly on festive occasions are noticed here.

[1] See the Dharmamangal poems by Ramchandra Banerji, Typ Sel. Vol. I, p. 412:

'রায়বীণা গন্ধবীণা জম্বুরা ক্রলান।
ক্ষমরি মোহরি কাড়া ফুকারে কাহান॥
দগড় দগড়ী বেণু রুদ্রবীণা বাঁশী।
কাংশ্য করতাল ঘণ্টা ঘোর শব্দ কাসী॥
সিন্ধু আনবরোল ভেরী রণভেরী কালী।
জয় ঢাক বীর ঢাক কর্ণে লাগে তালি॥
ধূসরি মোহরি ঢোল খঞ্জরি খমক।
জগঝম্প বাদ্যবাজে সঘনে গমক॥
রণশিঙ্গা ভোরঙ্গ বাজয়ে ভেঙ ভেঙ।
শোকসিন্ধুর উপরে দামামা ধাঙ ধাঙ॥'

(The military music consisted of the following instruments: Rāivinā, Gandhavinā, Jamburā, Cralān, Kshamari, Mohari, Kārā, Kāhān, Dagar, Dagari, Benu, Rudravinā, Bānsi, Karatāl, Ghantā, Kānsi, Sindhu, Ānabarol, Ranabheri, Kāli, Jaydhāk, Birdhāk, Dhusari (Mohari?), Dhol, Khanjari, Khamak, Jagajhampa, Ranasingā, Bhorang and Dāmāmā.

See Kavikankan's Chandikāvya, p. 264:

'রায়বীণা গন্ধবীণা বাজে রুদ্রবীণা।
দগড় দগড়ী বায় শত শত জনা॥
হাথীর গলাতে ঘণ্টা বাজে ঠন্‌ঠনী।
কাংশ্য করতাল বাদ্য করতাল শুনি॥

(1) *Rudravinā.*—A kind of lyre. The following description about 'Vinā' occurs in 'A History of Music' (p. 26) by Messrs. Stanford and Forsyth: "Vinā was originally made of a hollow wooden tube, supported on two empty gourds. At one end were the pegs (generally seven) and at the other a raised 'claw.' The wires ran from this claw or tailed piece to the pegs. But between these wires and the tube itself a number of little brass bridges were interposed. These varied from 19 to 23 or even more. The wires touched only the bridges nearest the pegs and therefore this bridge acted as a sort of 'nut.' The remaining bridges were used like the frets of guitar or mandoline. In other words, the players' fingers depressed the wires on to the bridges at pleasure. The nearer the finger approached the claw the shorter became the vibrating length of the wire and consequently the higher the pitch of the note produced. A metal plectrum was used for plucking the strings." Rudravinā was made of wood partly covered with leather. It had six strings, which were not metallic ones but were made of hair. A piece of fish-scale was required for plucking the strings. Rudravinā and two other allied instruments, Raivinā and Gandhavinā may be classed with the species known as harp.

(2) *Dāmāmā.*—A kettle-drum. It was played with a pair of short sticks like Tikārā, Nāgārā or Pataha and Dagar all of which were almost similar instruments of music. A drum of a considerably large size was known as Jaydhāk. A peculiar kind of kettle-drum was known as Jagajhampa which was suspended with a cord from the neck of the man who played on it with a pair of cane-sticks. Feathers of birds were used to decorate Jagajhampa. It had always been a favourite instrument of music with the Mahomedans and it is still used by them specially on religious occasions (*cf.* the Arabic Tambourines). A kind of Jagajhampa

জয়ঢাক বীরঢাক রাক্ষসী বাজনা।
প্রলয় সময়ে যেন পড়য়ে ঝনঝনা॥
হাতে দামা কাঁখে ঢাল তাল নিশান।
দামা দরমসা বাজে বাজে সিন্ধুয়ান॥'

The musical instruments, mentioned above were: Rāivinā, Gandhavinā, Rudravinā, Dagar, Dagari, Ghantā, Karatāl, Jaydhāk, Birdhāk, Dāmāmā, Dhol, Daramsā and Sindhuān.

was known as Khanjari—a circular instrument, very small in size. Bheri, another kind of kettle-drum, was once a favourite military musical instrument in our country. Our literature gives an abundant reference to this instrument. Akin to Bheri there was also another type known as Dunduvi. Both Bheri and Dunduvi were used in ancient times and are now almost unknown in our country. A special type of drum having only one side to play on was known as Kāḍā. It too used to suspend from the neck of the player with a cord who struck it with both his hands. Strokes were given by the right hand with the help of a cane-stick and by the left with the palm.[1]

(3) *Dhol.*—A kind of drum. Dhol and Dholak were both of the same species of musical instruments, the former being of a larger size than the latter. Dhol used to be hung on the neck of a person by a cord who beat it with his right hand on one side and with a stick on the other. The stick used for the purpose was generally made of a small piece of bamboo with a curved

[1] Cf. The kettle-drums as used in Egypt and Arabia. "Most of their (*Arabian*) instruments came from the Egyptians..... These primitive kettle-drums are still played in Egypt and Arabia. During the Crusades, they found their way into Europe and were adopted as the earliest form of small kettle-drum. In England their Arabic name Naqqareh became naturalised into the current fourteenth century word Nakers ..... They were afterwards superseded by the big Hungarian cavalry-drums (Jaydhāk ?)"—A History of Music by Stanford and Forsyth, p. 23. See Kavikankan's Chandikāvya, p. 94,

'সাজ সাজ পড়ে ডাক, দামামা দগড় ঢাক' :

(There was the order to get ready for the battle, when Dāmāmā, Dagar and Dhāk were beaten for the purpose.) See also Ghanarām's Dharmamangal, p. 20,

'ঘনরোল দামামা দ গড় পড়ে ঘা' :

(The musical instruments Dāmāmā and Dagar when beaten gave out a deep note.) See Kavikankan Mukundarām's Chandikāvya, p. 94,

'জগঝম্প বাজে কাড়া' :

(There were the flourish of music of Jagajhampa and Kāḍā. See p. 95 of the same work.)

'বাদ্যের নাহি সীমা, বাজে দুন্দুভি দামামা' :

(There were great display of music specially of Dundubhi and Dāmāmā.) See the Dharma songs by Sitārām Dās, C. U. MS. No. 2471, f. 6,

'শিঙ্গা কাড়া ঢোল, হ'ল গণ্ডগোল, সাজিল রাজার শালা' :

(There were great noise of musical instruments such as Singā, Kaḍā and Dhol. The occasion was the preparation of the king's brother-in-law for a battle).

head.[1] A kind of Dhol, named Dimdima, which was used in ancient time, is now out of use. This instrument of music was also in use in many other parts of the world such as Assyria, Babylonia, China and various other countries outside India.[2]

(4) *Bhorang.*—A kind of pipe. It resembled a telescope in appearance, and consisted of double tubes, one inner and the other outer. Clever manipulation of the instrument produced notes of different pitches. This is now practically out of use. (*Cf.* the double pipes of the Egyptian musical instrument.) Another type of wind instrument was known as Ranasingā—a kind of trumpet—which was chiefly made of bell-metal (*cf.* the metal-trumpet,—the Salpinx,—used in Greece). The Ranasingā (*lit.* battle-horn) was largely in use in ancient time, when the commanders used it in issuing direction to their troops in the battle-field. The instrument may have derived its name from horns from which it had originally

[1] See Kavikankan's Chandikāvya, p. 94,

'আশীগণ্ডা বাজে ঢোল, তের কাহন সাজে কোল' :

(There were 320 musicians, beating dhols when the Kol soldiers numbering 208 got themselves in readiness for a battle.) See Kavikankan, p. 95,

'ডিণ্ডিম বাজয়ে কাড়া' :

(The sound of Dimdima and Kāḍā). See Ghanarām's Dhārmamangal, p. 156,

'জোড়া কাড়া খঞ্জর' :

(A pair of Kāḍā and Khanjar.)

[2] "In the Hindu legends the drum is the characteristic instrument, associated with all the acts of life. And it remains so to-day ... Its two chief types are, and probably always were, the long-drum beaten at both ends either with the hands or with drum-sticks, and the small pair of right and left hand drums, which had their origin in the skin-covered gourd."

' The Assyrians and Babylonians had also drums."

"The huge ceremonial drum which is placed in the Eastern Pagoda of the Hall (of China) to balance the principal bell in the western, three other smaller drums are used in the ritual music. One is a large drum (Yung-ku) with a single head of parchment about three feet in diameter. It is beaten three times after each verse of the hymn and each beat is answered by two beats of a slightly smaller double-headed drum known as Tsu-ku. A smaller drum still (Po-fu), whose use is forbidden except for religious purposes, answers the two beats of the middle-sized drum with three strokes—one right-handed, one left-handed, and one double-handed." See 'A History of Music' by Stanford and Forsyth (Macmillan and Co.), pp. 26, 19, and 35.

been made. The Hebrews used ram's horn as their trumpet.[1] Another kind of pipe or flute was known as Venu. Among flutes of different types it was the longest. On one side there was only one opening and on the other were six. (*Cf.* The Greek Aulos which was a wooden pipe, originally containing three or four finger holes).[2] The Assyrians and Babylonians used clay flutes with two finger-holes. Yet another kind of flute was known as Bansi (*lit.* a pipe made of bamboo). It was originally made with a particular species of bamboo but it is now made of wood, metals and ivory. The length of a Bansi varied from eight 'Angulis' (about four inches) to even more than a cubit. Its upper end was generally kept closed and the lower end open. It had one main opening to blow it with mouth and six other openings for the fingers to play on.[3] Popular tradition attributes the credit of its invention to Sri Krishna,—the particular one used by him, according to mythology, was known as Murali.

[1] See Kavikankan's Chandikāvya, p. 95,

'বাদ্যের নাহি সীমা দুন্দুভি বাজে দামামা, ঘন শিঙ্গা বাজে পড়া' :

(There was no dearth of musical instruments. The Dunduvi, Dāmāmā and Singā were all played simultaneously.) See also Ghanarām's Dharmamangal, p. 156,

'ভাঙ ভাঙ রণশিঙ্গা বাজে' :

(The deep note of Ranasingā was heard.) See also the Dharmamangal poems by Rāmnārāyan, C. U. MS. No. 2454, F. 2.

"The twisted ram's horn trumpet was peculiar to the Hebrews. Made from the natural horn, and therefore roughly conical in form, it was consecrated to the service of the temple and found only in the hands of the priestly Levites. Seven of these instruments blown under Joshua's directions by seven priests after they had compassed the city seven times. On the seventh day in combination with the shouting of the Israelites destroyed the wall of Jericho. These instruments were also made from the horns of the koodoos." See 'A History of Music' by Stanford and Forsyth, pp. 21-22.

[2] See Viswakosh and the 'History of Music' by Stanford and Forsyth, pp. 40-41 and 19.

[3] *Cf.* the Chinese flute 'Hsiao' with the Venu and Bansi. "The flute (Hsiao), which has now been used in the ritual music for over 600 years, is a bamboo instrument, scientifically much like our (English) keyless flute. It measures $1\frac{8}{16}$ feet long and is provided with an embouchure-hole, five finger-holes and one thumb-hole. Six of these flutes take part in the sacred music. Their use for secular purposes is officially forbidden." See 'A History of Music' by Stanford and Forsyth, p. 35.

(5) *Kāsi.*—A gong,—an instrument made of bell-metal and resembles a plate with raised border. Two openings are made on two sides of it to be held by a piece of chord with the left hand by the person who strikes it with his right hand, by a stick. Another instrument closely resembling a Kāsi was known as Jhānjar which was formerly used in battles to give signal from a distance. It is now solely used in the religious ceremonies of the Hindus.

(6) *Karatāl or a cymbal.*—Circular in shape it is slightly high in the middle, with an opening in the centre. Through this hole a cord is passed to be held on the raised side by the musician. Two pieces of this round instrument are required to be struck against one another. Karatāl is now used mainly in conjunction with Khol, a kind of drum which is a favourite instrument of music with the Vaisnavas.

CHAPTER IX.

Hindu-Moslem Unity.

Bengal was under Mahomedan rule for nearly eight centuries. During this period their relationship with the Hindus was on the whole friendly. The Hindus and the Mahomedans could live peacefully if the autocrats would have allowed it, as the peace of the country to a great extent depended on the latter. A good autocrat ruled to the entire satisfaction of all while a bad ruler oppressed both the communities. So whatever differences might have existed they were due to the tyrannical rule of individual autocrats—Hindus certainly not excepted—causing an ever-widening breach between the communities.

Examples are not far to seek. In the days of Hindu rule, Rājā Mānikchandra's subjects, as we learn from the Maināmati songs, were so opulent that "persons who somehow managed to live, had horses waiting at their doors."[1] "Even the maid-servants disliked ordinary cloths."[2] "Nobody used the path which was not his own and nobody used the water from the tank not belonging

[1] 'একতন যেকতন কৈরে যে খাইছে তার দুয়ারত ঘোড়া'।

[2] 'ঝিনে বান্দী নাহি পিন্দে পাটের পাছর'।

to himself."[1] Such prosperity was not enjoyed by people for a long time in the past. "An East-Bengal man with a flowing beard came to rule the land under Rājā Mānikchandra. This man imposed exorbitant taxes on his subjets. From a Booḍi and a half he increased the taxes to fifteen gandās. People sold everything—even the ploughs, plough-shares, yokes, and all other requisites of cultivation. They went so far as to sell their children from the bosom of their mothers. The widows and the poor suffered terribly. As a result, the Taluks were turned into jungles."[2]

Inspite of all poetic exaggerations the story might represent the actual condition of the people when ruled by a whimsical autocrat. The horrible description of the jail in the capital of the Rājā of Singhal in which the merchant Dhanapati was confined, as we learn from the Chandikāvyas, probably represents the actual state of affairs of our country in by-gone days.

Kavikankan Mukundaram in depicting the character of Mahmud Sherif, a local officer, who represented the type of the most oppressive rulers, writes thus in his Chandikāvya (Bangabāsi edition) :—

"Unfortunately for the people, a Mahomedan Governor named Mahmud Sherif was entrusted with the administration of the Pargana. Under his rule the traders groaned. He made false measurements of land—a Kuḍa was measured at 15 cottas and rents were assessed on waste lands. The poor man's prayer was not heeded. The moneylenders become exacting. Each rupee was lost by two and a half annas. No purchasers were to be found for cattle or for straw. The land-lord Gopinath Nandi was made a prisoner and the poor people became stunned with

[1] 'কারো মাড়াল কেহ না যায়।
কারো পুষ্করিণীর জল কেহ না খায়॥'

[2] 'ভাটি হইতে আইল বাঙ্গাল লম্বা লম্বা দাড়ি।
সেই বাঙ্গাল আসিয়া মুলুকৎ কৈল কড়ি॥
আছিল দেড়বুড়ি খাজনা, লইল পনর গণ্ডা।
লাঙ্গল বেচায়, জোয়াল বেচায়, আরো বেচায় ফাল।
খাজনার তাপতে বেচায় দুধের ছাওয়াল॥
রাড়ী কাঙ্গাল দুঃখীর বড় দুঃখ হৈল।
থানে থানে তালুক সব ছন হৈয়া গেল॥'
মাণিকচন্দ্র রাজার গান—বঙ্গসাহিত্য পরিচয়, ১ম ভাগ, পৃঃ ২৮-২৯।

fear and grief. Lest they should abscond constables were appointed to keep watch over every cottage. In deep distress the poor people sold their spades and every utensil they possessed. Things worth a rupee were sold at 10 annas. The poet helped by Srimanta Khan, an inhabitant of Chandibāti, and being counselled by Muniv Khan as to the course he should follow, left Dāmunyā with his brother Ramānāth."[1]

[1] 'ধন্য রাজা মানসিংহ, বিষ্ণুপদাম্বুজভৃঙ্গ,
গৌড় বঙ্গ উৎকল অধীপ।
যে মানসিংহের কালে, প্রজার পাপের ফলে,
ডিহীদার মামুদ সরিপ॥
উজির হোলো রায়জাদা, বেপারিরে দেয় খেদা,
ব্রাহ্মণ বৈষ্ণবের হল্য অরি।
মাপে কোণে দিয়া দড়া, পনর কাঠায় কুড়া,
নাহি শুনে প্রজার গোহারি॥
সরকার হৈলা কাল, খিল ভূমি লেখে লাল,
বিনা উপকারে খায় ধুতি।
পোদ্দার হইলা যম, টাকায় আড়াই আনা কম,
পাই লভ্য লয় দিন প্রতি॥
ডিহিদার অবোধ খোজ, কড়ি দিলে নাহি রোজ,
ধান্য গরু কেহ নাহি কিনে।
প্রভু গোপীনাথ নন্দী, বিপাকে হইলা বন্দী,
হেতু কিছু নাহি পরিত্রাণে॥
পেয়াদা সবার কাছে, প্রজারা পালায় পাছে,
দুয়ার চাপিয়া দেয় থানা।
প্রজা হইল ব্যাকুলি, বেচে ঘরের কুড়ালি,
টাকার দ্রব্য বেচে দশ আনা॥
সহায় শ্রীমন্ত খাঁ, চণ্ডীবাটী যার গাঁ,
যুক্তি কৈলা মুনিব খাঁর সনে।
দামুন্যা ছাড়িয়া যাই, সঙ্গে রমানাথ ভাই,
পথে চণ্ডী দিলা দরশনে॥'

—কবিকঙ্কণ মুকুন্দরামের চণ্ডীকাব্য, পৃঃ ৬।

Mahmud Sherif probably ruled under the Hindu Raja Man Singha, who was then the Governor of Bengal.

The autocrats used to carry away girls, noted for their beauty, by force and marry them against their wish. In Samser Gāzir Gān, an historical work (mid-eighteenth century), we find the following interesting story bearing on the subject:

"The Gāzi once went to a forest for hunting near Jaypur Mandia, a village where lived one Manu Sarkar who had a very beautiful daughter whom her father gave in marriage to a Kulin Brahmin of Mireswari. Once she went to a neighbouring tank for a bath, accompanied by her girl friends, when she was noticed by the Gāzi who was at once charmed by her rare personal beauty. The Gāzi seized her from amongst her companions 'just as a serpent catches a frog.' He was however a sensible person and by way of persuading his own wife to accord her consent to his marrying the girl whom he had captured, said—'Such intermarriages are not new in this country and they are now recognised everywhere.' He did not stop here. According to his wife's advice he tried to console the girl by paying a large sum of money to her father and getting her Hindu husband married again to another beautiful girl of the town of Bhuluā."[1]

[1] হিন্দুর নন্দিনী বিবাহ।

একদিন গাজী গেল করিতে শীকার।
জয়পুর মন্দিয়ার বনের মাঝার॥
জয়পুরে ছিল এক মনু সরকার।
কানুরাম লস্কর হয় ফরজঙ্গ তাহার॥
সেই মনু সরকারের সুন্দরী কুমারী।
কুলীন দামাদে বিভা দিছিল মিরেশ্বরী॥
পঞ্চসখী মিলি তারা পুকুরের ধারে।
গিয়েছিল সেই দিন স্নান করিবারে॥
নূতন বয়সী বামা জলে যেন উড়ে।
দেখিয়া গাজীর চিত্ত ধরাইতে নারে॥
ইসারা করিল গাজী লোক গেল দূরে।
গাজী উত্তরিল সেই পুষ্করিণী পাড়ে॥

The carrying away of another Hindu girl by force by an oppressive Kāzi has been vividly described in the story of Maluā in the Mymensingh Ballads. The despot Jehangir Dewan, a great oppressor treated the Hindus and the Mahomedans alike. He oppressed Maluā in a terrible manner, and the Kāzi was beheaded by his order without a hearing. If the chief was a despot, the rigour of his Government fell equally on the two sections of the community.

গজ লোটাইয়া গাজী তুলি নিল ধনী।
রাজপথে ভেক ধরি যেন নিল ফণী॥
নিল নিল বলি ডাকে সেই দাসীগণ।
বাপে পুত্রে শুনি তারা হৈল অচেতন॥
জাতি গেল জাতি গেল কান্দে সর্ব্বজন।
কি করিব কোথা যাব করয়ে ভাবন॥
আসিতে স্বীকার কৈরে পথে দৈবগতি।
পাইলাম রত্ন এক সুন্দরী যুবতি॥
যদি কৃপা কর মোরে হয় মম কাজ।
দেশাচার আছে নাহি এতে লাজ॥
এ বলিয়া প্রিয়া হস্তে সমর্পিল বামা।
মঞ্জুর করিল বিবি ছাড়ি নিজ তামা॥
যে ইচ্ছা তোমার প্রভু সে ইচ্ছা আমার।
মনে লয় যেই সেই কর আপনার॥
কিন্তু হিন্দুসুতা ধনী তুমি মুসলমান।
কলেমা পড়াই তারে আনাও ইমান॥
তাহার পিতারে আনি রাজি কর গাজী।
পূর্ব্বস্বামী বশ কর আল্লা হবে রাজী॥
এ বলি রাখিল কন্যা করিয়া যতন।
হারামি করিতে গাজী না পারে যেমন॥
সমসের গাজী মনু সরকারে আনি।
প্রণামে নজর দিয়া শ্বশুর হেন জানি॥
মিরেশ্বরী হতে আনি পূর্ব্ব দামাদেরে।
বিবাহ করাই দিল ভুলুয়া নগরে॥

—সমসের গাজীর গান, পৃঃ ৮২-৮৩।

It should be clearly understood that not only did the Hindu girls but the Mahomedan girls also suffer at the hands of the autocratic ruler. The abduction of girls might have been felt more keenly by the Hindus because of the fact that such an occurrence always entailed excommunication and social degradation. These outcastes formed numerous subcastes such as Sherkhāni, Pirāli, Bhairabghataki, Harimajumdāri—all of which were originally pure Brahmins.[1]

The Hindu Rājās sometimes were notorious for their tyranny. Chānd Rai, the Foujdar of Gaurdwar was, as we understand from the Vaisnava literature, 'Physically a very strong man and had become the terror of the people. He killed men looted their property, and seized their wives and daughters so that at the mere report of his approach, people of a town or a village fled with their families and treasures.'[2]

Whims of autocratic rulers always kept the country under a constant alarm in those days. Thus in the Dharmamangal poems, the cruel treatment of Māhudyā towards his nephew Lāusen, the capital sentence which that wicked minister contrived to inflict on Harihar Bāity for the fault of telling the truth—all go to prove that the Hindu and the Mahomedan autocrats had all a common mentality and the question of racial difference cannot be regarded as supplying any evidence with a view to judging their conduct. The legends of the Dharmamangal poems indicate a state of society which though presented in mythical form is but a reflection of what actually happened in the country in those days.[3] We find in the 16th and 17th centuries Bir Hāmvira and Chānd Rai committing atrocities on the Hindus in the most cruel and heartless manner.

In the Chaitanya Mangal by Jayānanda is to be found a story about Husen Shah's oppressions of the Hindus though that monarch is known in history as a great patron of vernacular literature.

It is quite natural that these autocrats would often treat people not belonging to their own race with a greater severity. We have heard the story which describes the most inhuman cruelty with which Ballal Sen punished a Mahomedan who had killed a cow,

[1] See N. Vasu's castes and sects of Bengal, Vol. I, Part I, pp. 201-118. See also the works of Harikavindra and Danujāri Misra.

[2] See Dr. Sen's Vaisnava Literature, p. 136.

[3] See the Dharmamangal poems by Ghanarām, Mānik Gānguli and others.

at a place, many hundred miles away from his capital. There are besides examples of tyranny of the Mahomedan Kāzis of which the Hindus were the victims and all this will show that the racial question played at least some part in these matters. The history of Europe of the contemporary period presents a parallel picture of one party persecuting the other among the Roman Catholics and the Protestants. The poets of Manasāmangal, specially Bijay Gupta and Bansi Dās, have left some stories for us which inspite of the poetic exaggerations they contain may have some bearing on the actual condition of the country.

We give the following story, taken from Bijay Gupta's Manasāmangal (Peary Sankar Gupta's ed.) :—

"The story of Hāsān and Husen."

"In the south, near the village of Husenhāti, there lived two Mahomedan brothers, named Hāsān and Husen. They were both of notorious characters, great bullies and sworn enemies of the Hindus. There was another rogue also, named Dulā Haldar, a brother-in-law of Husen, who always precedes the latter when he goes. Dulā surpassed Husen in his oppressions which were mainly directed to the Hindus who used to flee away if they happened to meet him. Dulā used to arrest the Hindus and take them to his brother-in-law the Kāzi to be tried for offences such as the carrying of a Tulasi leaf on their head (a practice still prevalent amongst the Vaishnavas). Punishment would now follow as a matter of course. The unfortunate accused used to be assaulted, in accordance with the Kāzi's orders, by Dulā himself who were led to a spot under the shade of a tree. Blows and slaps fell on them as 'hails in a storm.' Dulā's Pāiks were particularly hostile to the Brahmins and used in great delight and enthusiasm, to draw them by their neck, tear off their sacred thread and spit into their mouth. Brahmins of a comparatively milder temperament did not use cow-dung for purificatory purposes in their house, any custom savouring of Hinduism being sufficient to invite punishment."[1]

[1] হাসেন হোসেনের পালা।

দক্ষিণে হোসেনহাটি গ্রামের নিকট।
তথায় যবন বৈসে দুই বেটা শঠ॥

Bansidās furnishes some sidelight in the matter as will appear from the following :

"When the Kāzi learnt that some Hindu milkmen had been engaged in worshipping the goddess Manasā Devi at a certain place, he called out his men to accompany him to the scene. Within a moment a large number of Khojās (eunuchs) and Mahomedans came out and followed him, not one remaining in the town. All of them now arrived at the place where the ceremony was being performed.

The Kāzi's presence filled the hearts of the worshippers with terror and they took to their heels and fled in all directions. But some of them were caught hold of by the Kazi's followers and beaten mercilessly. The sacred jar—an emblem of the deity was broken to

হাসেন হুসেন তারা দুই ভায়ের নাম।
দুইজনে করে তারা বিপরীত কাম॥
কাজিয়ানী করে তারা জানে বিপরীত।
তাদের সমুখে নাই হিন্দুয়ানী রীত॥
যাহার মাথায় দেখে তুলসীর পাত।
হাতে গলে বান্ধি নেয় কাজির সাক্ষাৎ॥
বৃক্ষতলে থুইয়া মারে বজ্রকিল।
পাথরের প্রমাণ যেন ঝড়ে পড়ে শিল॥
পরের মারিতে কিবা পরের লাগে ব্যথা।
চোপড় চাপড় মারে দেয় ঘাড়কাতা॥
এক বেটা হালদার তার নাম দুলা।
বড় অহঙ্কার করে হোসেনের শালা॥
সর্ব্বক্ষণ হোসেনের আগে আগে আসে।
তাহার ভয়ে হিন্দুসব পলায় তরাসে॥
যে যে ব্রাহ্মণের পৈতা দেখে তারা কান্ধে।
পেয়াদা বেটা লাগ পাইলে তার গলায় বান্ধে॥
ব্রাহ্মণ পাইলে লাগ পরম কৌতুকে।
তার পৈতা ছিড়ি ফেলে থুথু দেয় মুখে॥
ব্রাহ্মণ সুজন তথায় বসে অতিশয়।
গৃহঘর গোময় না দেয় দুর্জ্জনের ভয়॥ ইত্যাদি।

—বিজয়গুপ্তের মনসামঙ্গল।

pieces and the requisites of the ceremony were scattered over and trampled under foot. This done the iconoclasts said their prayer at that very place and forced the Hindus—specially the Brahmins who came there as mere onlookers—to have them circumcised with a view to break their caste. To crown all they desecrated the place by killing cows before they left it."[1]

The people specially the Hindus though generally of a mild temperament were sometimes goaded to desperation by the oppressive conduct of the Mahomedan rulers (who were not certainly many) and were forced to take retaliatory measures. Thus we find the following in the Manasamangal poems by Bansidās:

"After having desecrated the place of worship of the goddess Manasā Devi by breaking the sacred jar when the Mahomedans headed by the Kāzi were discussing the means of putting the whole village, (peopled by the Hindus), to flame, the devotees, all belonging

[1] সাজ সাজ বলিয়া হাসন পাড়ে ডাক।
একডাকে বাহিরিল খোজা তিন লাখ॥
* * * *
ঘন ঘন সারাকাটি পড়িল নগরে।
একজন মুসলমান না রৈল সহরে॥
আসিয়া মিলিল সবে পদ্মাপূজা স্থান
ইদেখিয়া হিন্দুয়ানের উড়িল পরাণ।
কেহ পলাইয়া গেল কেহ দিল লড়।
কেহকে মারিল বাড়ি করে ধড় ধড়॥
পূজাভাঙ্গি ঘটবারি ভাঙ্গিয়া ফেলায়।
যতেক মঙ্গল দ্রব্য পাড়ে দুই পায়॥
ব্রাহ্মণের জাতিনাশ করিবার ছলে
কর্ণেত কলিমা পড়ে যবন সকলে॥
আসিছিল যতলোক দেখিবারে ব্রত।
জুলুম করিয়া সবে করিল সুন্নত॥
গোহত্যা করিল তথা করিয়া জবর
তদন্তরে সবগুলা চলি গেল ঘর॥

—বংশীদাসের মনসামঙ্গল।

to the Goālā (milkmen) caste could restrain themselves no longer. They attacked the Mahomedans furiously and the latter found themselves powerless with no other course left open to them than to take to their heels. But many could not escape. Minā Kāzi was one of them. He was surrounded by the milkmen and bound hand and foot. He was then beaten and put to abject humiliation. A goat's skin was tied round his neck and all jeered at the predicament in which he was thus placed. The vindictive measures went further still. They burnt the Korān and other sacred scriptures of the Mahomedans. They tore off his beard and when he was let off he was barely alive. The milkmen now have had their bath, worshipped the goddess, after which they left the place.[1]

The Mahomedan rulers were sometimes noted for governing the country in the most beneficent manner. The names of the Sultans Ghyāsuddin, Nasirā Shah and Husen Shah as also the names of the Governors Parāgal Khan and Chhuti Khan are instances of these types of rulers. The Maithili poet Vidyāpati spoke of and Nasirāh Shah in the following terms :

[1] এই সব যুক্তি তারা করই বসিয়া।
হেনকালে গোপ সব আইল সাজিয়া॥
ধর ধর মার মার বলে গোপগণে।
মিঞা সব পলাইল ভয় পায়্যা মনে॥
বনে ঝোপে গেল তারা লড়ালড়ি পাড়ি।
মিনা কাজি পলাইতে ধরিলেক বেড়ি॥
ধরিয়া বান্ধিল তারে ছান্দাদড়ি দিয়া।
মুষ্টি প্রহার করে বুকেত বসিয়া॥
কাটা ছাগলের চর্ম্ম গলে দিয়া মালা।
হাততালী দিয়া তারে মারে ঘন ঠেলা॥
কিতাব কোরাণ কত পুড়িল সকল।
দাঁড়ি উপাড়িয়া প্রাণে রাখিল কেবল॥
তার পরে ছাড়ি দিল দুর্ব্বল দেখিয়া।
স্নান করি পদ্মাপূজে হরষিত হৈয়া॥

—বংশীদাসের মনসামঙ্গল।

"Nasirāh Shah who knows love matters quite well, cupid pierced with his dirt. The poet Vidyāpati says 'Long live the Emperor of the five Gaudas." [1] The poet elsewhere spoke of his lord Sultan Ghyāsuddin.[2]

Nasirā Shah ruled Bengal for forty years till 1325 A.D. It is said that it was Nasirā Shah who first initiated the translation of the Mahābhārata in Bengali from Sanskrit. It was however the age of Husen Shah, (15th century) which might be compared to that of Queen Elizabeth of England (16th century) in respect of the advancement of vernacular literature under State patronage. Like Elizabeth who patronised Spenser, Marlowe, Shakespeare and a lot of other poets and writers, Husen Shah befriended the vernacular poets of Bengal, such as Mālādhar Basu, Bijay Gupta, Jasorāj Khan and a host of others.

It was at the initiation of Husen Shah that Mālādhar Basu translated the Bhāgabata into Bengali in 1480 and received from his kind master the title of Gunarāj Khan.[3] Bijoy Gupta, the celebrated poet of the Padmā Purān referred to Husen Shah as being the best of all monarchs.[4] Jasoraj Khan said, 'His

1 'সো নসিরা সাহ জানে।
যাক হাণিল মদন বাণে॥
চিরঞ্জিব রহু পঞ্চ গৌড়েশ্বর,
কবি বিদ্যাপতি ভাণে।'

—বিদ্যাপতি, পৃঃ ২৮ (N. Gupta's Ed.).

2 'প্রভু গয়াসুদ্দিন সুলতান।'

—বিদ্যাপতি।

3 'নিগুর্ণ অধম মুঞি নাহি কোন গ্রাম।
গৌড়েশ্বর দিল নাম গুণরাজ খান॥'

—ভূমিকা, মালাধর বসুর ভাগবতের অনুবাদ।

(I have no qualities and have no village in my possession. My name 'Gunarāj Khan' (lit. possessor of all virtues) has been given to me by the Lord of Gaud). Preface to the Bengali translation of the Bhāgabata by Mālādhar Basu).

4 'সুলতান হুসেন সাহা নৃপতিতিলক।'

—বিজয়গুপ্তের মনসামঙ্গল, পৃঃ ৮

Majesty Husen Shah who is the ornament of the world knows the emotion well.'[1]

The noble spirit of the master was a source of inspiration to his courtiers and thus Parāgal Khan who was a commander and Governor under him, patronised Kavindra Parameswar, the celebrated poet of the day and advised him to translate the Sanskrit Mahābhārat into Bengali, a portion of which (up to the Stree Parva) thus was rendered into our vernacular. Parāgal was the Governor of Chittagong where he ruled semi-independently. Parāgal's worthy son Chhuti Khan followed in the wake of his father and appointed one Srikaran Nandi to continue the work of translation and bring it down to the Aswamedh Parva. Kavindra eulogised Husen Shah in glowing terms in his work.

Srikaran Nandi was also similarly full of panegyrics for these Mahomedan rulers as we find in the opening chapter of his work.

Not only in social matters but also in religion, the communities joined hands and as a result a common god evolved known as Satya Pir, worshipped both by the Hindus and the Mahomedans. The very name of this god indicates his connection with both the communities, the word itself being a combination of Sanskrit and Arabic.

The abjuration of Islamism by the Mahomedans and their adoption of Vaisnavism are well-known in the Vaishnava history. The conversion of the Mahomedan saint, who afterwards became known as Haridas Sadhu, is known to all. The conversion of one Bijuli Khan and some other Pathans as found in Chaitanya Charitamrita, Madhyakhanda[2] is also interesting indeed.

At another place of the same work we find the following interesting incident in which Husen Shah, the Emperor of Gauf, spoke of Chaitanya Dev as God personified. He said :[3]

1 'শ্রীযুত হসন জগত ভূষণ, সোহ এরস জান।
পঞ্চ গৌড়েশ্বর ভোগপুরন্দর ভনে যশরাজ খান।

—রসমঞ্জরী, পৃঃ ৮।

2 See Chaitanya Charitāmrita, Madhyakhanda, pp. 736-743.

3 গৌড়েশ্বর যবনরাজা প্রভাব শুনিঞা।
কহিতে লাগিলা কিছু বিস্মিত হইয়া॥

"As people are flocking to see him in such a large number though they do not receive anything from him, shows that the man thus followed must be a saint. I command the Kazis and Mussalmans in general not to molest him. Let him say anything that he desires. The Sultan next enquired of Kesab Chhatri about Chaitanya Dev, who was a follower of the latter and who apprehended evil designs of the Sultan thus replied with a view to shielding the Great Saint : 'Your Majesty should consider Chaitanya Deva as a common Sannyasi and a beggar. Very few people go to him. Your co-religionists magnify the truth. It is no use

বিনা দানে এত লোক যার পাছে ধায়।
সেই ত গোসাঞি ইহা জানিহ নিশ্চয়॥
কাজি যবন কেহ ঞিহার না কর হিংসন।
আপন ইচ্ছায় বলুন যাহা ইহাঁর মন॥
কেশব ছত্রীরে রাজা বার্ত্তা যে পুছিল।
প্রভুর মহিমা ছত্রী উড়াইয়া দিল॥
ভিক্ষারী সন্ন্যাসী করে তীর্থ পর্য্যটন।
তারে দেখিবারে আইসে দুইচার জন॥
যবনে তোমার ঠাঁই করয়ে লাগনি।
তাঁর হিংসায় লাভ নাহি হয় মাত্র হানি॥
রাজারে প্রবোধি ছত্রী ব্রাহ্মণ পাঠাইয়া।
বলিবার তরে প্রভুরে পাঠাইল কহিয়া॥
দবীর খাসেরে রাজা পুছিল নিভৃতে।
গোসাঞির মহিমা তেহোঁ লাগিলা কহিতে॥
যে তোমারে রাজ্য দিল তোমারে গোসাঞী।
তোমার ভাগ্যে তোমার দেশে জন্মিল আসিঞা॥
তোমার মঙ্গল বাঞ্ছে বাক্য সিদ্ধ হয়।
ইহার আশীর্ব্বাদে তোমার সর্ব্বত্রেতে জয়॥
মোরে কেনে পুছ তুমি পুছ আপন মন।
তুমি নরাধিপ হও, বিষ্ণু অংশ সম॥
তোমার চিত্তে চৈতন্যের কৈছে হয় জ্ঞান।
তোমার চিত্তে যেই লয়ে সেই ত প্রমাণ॥

aking any notice of this poor fellow.' Thus consoling the Sultan, Kesab secretly despatched a Brahmin to Chaitanya to communicate what conversation had taken place between him and the Sultan. The Sultan afterwards conferred with Dobir Khas, his minister, about the Lord all alone. The minister spoke in glowing terms about the greatness of the Lord. He said that it was Chaitanya Deva himself who has endowed you with your kingdom. It was due to your luck that such a great saint had been born in your kingdom. The Lord is your well-wisher and surely the Sultan would attain all-round prosperity by his benediction. He further told the Sultan that there was no need of his asking him those questions about the Lord, that he himself could consult his own mind and understand all. 'You are,' said he, 'the Lord of Navadwip and so you have some godliness in you from whom emanate all the powers of the earthly rulers. Your intellect must therefore be very pure and therefore the receptacle of all true knowledge.' The Sultan said that he believed Chaitanya Deva to be no other than God personified. Thus declaring his opinion about the Lord, the Sultan closed the conference and entered his harem."

In Chaitanya Charitāmrita we find a certain Kazi addressing Chaitanya as his god.[1]

রাজা কহে শুন মোর চিত্তে যেই লয়।
সাক্ষাৎ ঈশ্বর ইহোঁ নাহিক সংশয়॥
এত বলি রাজা গেল নিজ অভ্যন্তর।
দবীরখাস আইলা তবে আপনার ঘর॥

—চৈতন্য চরিতামৃত, মধ্যখণ্ড, পৃঃ ২৮-২৯।

[1] See Chaitanya Charitāmrita, Adikhanda, pp. 449-450.

পীরের লেপনি পরে শুয়ে নিদ্রা যায়।
নিশি শেষে দেখে স্বপ্ন প্রভুর কৃপায়॥
উদয়পুরে ছিল এক মাতাঠাকুরাণী।
মহারাজ নিত্য পূজা যোগাইত আনি॥
* * * *
উত্তরমুখি ছিল দেবী দক্ষিণমুখি হল।
গাজীর শিয়রে আসি স্বপ্ন দেখাইল॥

The Mahomedans who were at first great iconoclasts thus gradually succumbed to the religious influences of the Hindus. Not only many of them became staunch Vaishnavas but many began to worship the goddess Kali, Sitalā Devi, Saraswati, Siva, etc.

Samser Gāzi, the hero of Samser Gāzir Gan, is said to have once had a dream wherein he found the goddess Kali, worshipped in the family of the Tipperah Raj, appearing before him and saying, "Listen to me, Oh Gāzi, see I have come to grant you a boon. You will win your battles easily if you would only worship me by sacrificing a human being at my altar." [1] The Goddess is said to have appeared to him again and in a dream pressed the same proposal when the Gāzi said hesitatingly, "You are the goddess of the Hindus; I being a Mahomedan, how can I worship you." The goddess, however, persuaded him in the end to worship him through the intermediary of a Brahmin and as a result of this he won the battles.

The following few lines will throw a flood of light on the friendly feeling that existed between the two communities :

"In a work called 'Imām Yātrār Punthi' we find that the Mahomedan author has a hymn addressed to Saraswati, the goddess of Learning. In 'Yāmini Vahāl' of Karimulla, a Mahomedan is found to pray before the god Çiva. Aptabuddin, the poet of 'Jāmil Dilārām,' sent his hero to the nether world 'to seek a boon from the

[1] শুনরে সমসের গাজী চেয়ে দেখ মোরে।
আসিয়াছি হেথা আমি বর দিতে তোরে॥
মাতাঠাকুরাণী আমি দেবী চিহ্ন কায়।
নিদ্রা ছাড়ি উঠ যুদ্ধ জিনিবে হেলায়॥
কিন্তু মোরে মহাবলী দেও তুরমান।
অবশ্য জিনিবা যুদ্ধ হইবে কল্যাণ॥
* * * *
পূর্ব্বমতে স্বপ্নে দেবী বলিতে লাগিল।
শুনি বিপরীত বাক্য গাজী উত্তরিল॥
আমি হই মোছলমান আপনি ঈশ্বরী।
কেমনে হিন্দুর কাজ বল আমি করি॥

Saptarsies or the seven sages of the Hindus.' In the 'Bhelua Sundari' of Hamidulla, the Brahmins consulted the Koran to find out an auspicious day.

The poet Karamali, the celebrated writer of the 'Padas,' dedicated to Radha and Krishna many of his poems.

A class of Mahomedans earned their livelihood by singing the praises of the Hindu Goddess Lakshmi.

There are numerous instances in our old Bengali literature of a cordial and friendly relationship subsisting between the Hindus and Mahomedans in the remote past and the examples I have introduced in this chapter will, I trust, prove this.

CHAPTER X.

Architecture.

The architectural specialities of old Bengal though not many, deserve special notice, inasmuch as they show the extent to which they are indebted to the architecture of other parts of India and to what extent they are indigenous. The people of Bengal developed a peculiar style which contributed much to the general improvement of the art. The Islamic conquest gave an impetus to the architectural development of the whole country, and Bengal, like all other parts of India, felt the impulse in no small degree. "Indo-Saracenic"

দেবী বলে সকলই বিধাতার হাত।
যখন যাহারে চাহে করেছে নিপাত॥
তাহার নিকটে জান সকলই সমান।
নাহিক প্রভেদ কিছু হিন্দু মুসলমান॥
স্বহস্তে না দেও পূজা ডাকহ ব্রাহ্মণে।
নতুবা জিনিতে তুমি না পারিবা রণে॥
হেন মতে তিনবার স্বপ্ন দেখাইল।
শুনিয়া যুদ্ধের কথা মনে ভয় পেল॥
প্রভাতে উঠিয়া গাজি ভাবি মনে মন।
উপহারে দিল পূজা ডাকিয়া ব্রাহ্মণ॥ ইত্যাদি।

—সমসের গাজীর গান, পৃঃ ৫৫-৫৭।

was the name applied to this style of architecture by Mr. Fergusson, who made the following observation :—

"It is easy to understand, on the other hand, why, in Bengal, the trabeate style never was in vogue. The country is practically without stone, or any suitable material for forming either pillars or beams. Having nothing but brick, it was almost of necessity that they employed arches everywhere, and in everything that had any pretensions to permanency. The Bengal style being, however, the only one wholly of brick in India proper, has a local individuality of its own, which is curious and interesting, though from the nature of material, deficient in many of the higher qualities of art which characterise the buildings constructed with larger and better materials. Besides elaborating a pointed-arched brick style of their own, the Bengalis introduced a new form of roof, which has had a most important influence on both the Mahomedan and Hindu styles in more modern times. As already mentioned in describing the Chhatri at Alwar, the Bengalis, taking advantage of the elasticity of the bamboo universally employ in their dwellings a curvilinear form of roof, which has become so familiar to their eyes, that they consider it beautiful. It is so in fact when bamboo and thatch are the materials employed, but when translated into stone or brick architecture, its taste is more questionable.....Be this as it may, certain it is, at all events, that after being elaborated into a feature of permanent architecture in Bengal, this curvilinear form found its way in the 17th century to Delhi and in the 18th to Lahore, and all the intermediate buildings from say A.D. 1650, betray its presence to a greater or less extent."[1]

The old Bengali literature is full of description of these architectural peculiarities which are noticed in the following pages. Inspite of poetic exaggerations, excellent descriptions are to be found in it, giving, in detail, the mode of construction of temples, towns, houses, etc., each of which is dealt with separately.

Temple.

The building of temples once attained a high degree of perfection as is evidenced from a Dasyu-made temple at Bankura. The

[1] See History of Indian and Eastern Architecture by Fergusson.

following description occurs in the Chandikāvya by Dwija Kamallochana'about the construction of a temple.

"The architect-god Viswakarmā with his colleagues and assistants applied himself to the task of building the temple of the goddess Ambikā. The temple was built with stones of various colours. Such was the enthusiasm displayed by the architects on the occasion that not a moment was lost and work continued throughout the whole night with the help of lamps made of precious gems. Big blocks of stones were broken into smaller pieces for the pavement of the temple-yard. Between the pieces of stones, valuable gems of variegated colours were inlaid and the effect of the workmanship thus produced was simply wonderful. The colours that were chosen on the occasion were blue, black, white, red and golden. The spire was fitted with a golden vase

[1] সঙ্গে লয়ে শিল্পিগণ, বিশ্বকর্ম্মা দিল মন
অম্বিকার দেহরা নির্ম্মিতে।
নানাবর্ণে আনি শিলা দেউল নির্ম্মাণ কৈলা
শিল্পিগণ লয়া সাবহিতে॥
চারি প্রহর রাতি জ্বালিয়া রত্নের বাতি
জাগরণে করে নিরমাণ।
নানারূপ কৈল তাথে আপনার মনোরথে
শিরে ধরি অভয়া চরণ॥
খণ্ড খণ্ড করি শিলা নানারত্ন আরোপিলা
তার মধ্যে মধ্যে দিল শিলা।
নীল কৃষ্ণ শ্বেত রক্ত তাহাতে সুবর্ণ বেক্ত
পঞ্চবর্ণ কৈল নিয়োজনা॥
দেউল উপর ভাগে পঞ্চবর্ণ তাতে লাগে
কণক কলস লাগে চূড়ে।
তাহাতে পতাকা নেতে কৃষ্ণবর্ণ বাস তাতে
পবনে সমূলে তাহে উড়ে॥
নানারূপ বেড়া কৈল তাহাতে দর্পণ দিল
হীরা মতি কাঞ্চন সহিতে।
দেখিতে সুন্দর তায় নানারূপে নিরমায়
শিল্পিগণ লয়া সাবহিতে॥

and a black pinnace which fluttered in the sky. The walls were built with sundry materials and contained glasses mounted with precious jewels. The magnificent gateways to the temple were four in number, consisting of golden doors. Gold coins were stuck to them to enhance their brilliance. The floor inside the temple was decorated with stones of different colours. Here an altar was made for the image, in front of which another circular altar was constructed, set with coins. To the west of the temple a hundred stone-houses were built, furnished with all the requisites of worship. To the east of the temple, houses for keeping the sacrificial fire ablaze were constructed with precious stones. The architect Viswakarmā then gave his attention to the building of an amusement-hall in the south using his measuring-tape all the while. This magnificent hall was made of stone with excellent sitting accommodation. To the south-east was built a house for the musicians. Its height was great (*lit.* one *yojana*). Other quarters were then constructed by Viswakarmā for the accommodation of guests. To the northern side of the temple, artistic cooking-sheds were constructed at a considerable expense. These houses contained crystal

দেউলের চারি দ্বার রূপে খণ্ডে অন্ধকার
কণক কপাট চারি দ্বারে।
তাথে দিল বহুধন যেন সূর্য্য কিরণ
সন্তোষ করিতে অম্বিকারে॥
দেউলের মধ্যভাগে নানাবর্ণে শিলা লাগে
প্রতিমা স্থাপিতে বেদী কৈল।
তাহার সম্মুখে কৈল মণ্ডলের বেদী হৈল
বহু ধন তাথে লাগাইল॥
পাষাণে নির্ম্মায় ঘর একশত মনোহর
দেউলের পশ্চিম ভাগেতে।
তাহাতে সুসজ্জ কৈল নানারূপে নির্ম্মাইল
রচনা বান্ধিতে বিধিমতে॥
দেউলের পূর্ব্বে কৈল হেমশালা নির্ম্মাইল
নানা রত্নে বিচিত্র নির্ম্মাণ।
বিধিমতে মুণ্ড করে সূত্র ধরি মধ্য ঘরে
বিশ্বকর্ম্মা হয়্যা সাবধান॥

pillars and doors. The whole edifice was surrounded with high walls measuring a hundred cubits in length with stone-gates on four sides. A very big tank was excavated by Viswakarmā inside the temple. Its ghats were all made of stones. Its water was as clear and transparent as crystal with clustering lotuses floating on the surface visited

দক্ষিণেতে দিল মন সঙ্গে লয়া শিল্পিগণ
নাটশালা করয়ে নির্ম্মাণ।
পাথরে করিল ঘর দেখি তাহা মনোহর
শিরে ধরি অম্বিকাচরণ।
বসিতে সর্ব্বজন কৈল দিব্য ভবন
নানাবর্ণে পাথরে নির্ম্মিল।
তাতে লাগে বহুধন ঝলমল অনুক্ষণ
বহুবিধ সুসজ্জ করিল॥
অগ্নিকোণে বাস্তুঘর দেখি অতি মনোহর
উচ্চ কৈল যোজন প্রমাণ।
আর যত ভবন রহিতে অতিথিগণ
গড়ে বিশা করিয়া যতন॥
দেউলের উত্তর দ্বারে দিব্য ভোগশালা করে
নানাধনে দেখিতে সুন্দর।
সেহিত ভবন মাঝে ফটিকের স্তম্ভ সাজে
দ্বারেতে কপাট মনোহর॥
বিশ্বকর্ম্মা দিয়া মন সহেস্রেক ভবন
যত্নে কৈল দুর্গার পুরীতে।
পাষাণে বেড়িল পুরী শত হাত উচ্চ করি
চারি দ্বারে কপাট শিলাতে।
পুরী মধ্যে সরোবরে বিশাই নির্ম্মাণ করে
দীর্ঘ প্রস্থ প্রমাণ বিশাল।
পাথরে বান্ধিল ঘাট আর যত নাছ বাট
তাতে তোয় ফটিক আকার।
জলেতে পঙ্কজ শোভে অলি ভ্রমে মধু লোভে
তীরে তরু দেখিতে সুন্দর॥

by the bees in quest of honey. The banks were all covered with trees and flower-gardens scattering fragrance in all directions." [1]

A second account of temple-building is given below from Kavi-Kankan Mukundarām's Chandikāvya, pp. 32-33.[2]

[1] পুষ্পের উদ্যান করে দেখি অতি মনোহরে
সৌরভ ধাইছে দিগন্তর ॥
আনন্দিতে বিশ্বকর্ম্ম পুরে করে নানা কর্ম্ম
অভয়ার মনোরথ কাজে।
প্রতিমা আনিয়া যবে দেউলে স্থাপিল তবে
কৈলাস সমান পুরী সাজে ॥" ইত্যাদি।

—দ্বিজকমললোচনের চণ্ডীকাব্য,
বঙ্গসাহিত্যপরিচয়, প্রথম ভাগ,
পৃঃ ৩০৭-৩০৯।

[2] সাতান্ন বন্দে বিশাই করিলেন স্থতা।
ইন্দ্রনীল পাষাণে রচিত কৈল পোতা ॥
মূণ্ডে আরোপিয়া গিরি আনে হনূমান।
নিশির ভিতরে দেউল করিল নির্ম্মাণ ॥
হীরা-নীলা-মরকতে করিলেন চূড়া।
রসাল দর্পণে তার চারিদিগ বেড়া ॥
ধবল চামর শিরে ত্রিশাথ পতাকা।
রাকাপতি বেঢ়ি যেন ফিরয়ে বলাকা ॥
থরে থরে প্রবাল মুকুতা পাঁতি পাঁতি।
পূর্ণিমা সমান হৈল অমাবস্যা রাতি ॥
নানা চিত্র করিল যে করিয়া যুগতি।
হেমময় তথি আরোপিলা ভগবতী ॥
কাঞ্চনের দুইঝারি বৃষভে মহেশ।
ময়ূরে কার্ত্তিক লেখে মূষাতে গণেশ ॥
হনূমান অভয়ার লয়ে অনুমতি।
পাষাণে রচিত কৈল পূজার পদ্ধতি ॥
নখে কোঁড়ে হনূমান দীঘি সরোবর।
চারিখান পাহাড় কৈল যেন মহীধর ॥

"First a measurement was taken by Viswakarmā with a piece of thread. Then the plinths were made with a kind of blue stones. Hanumān brought an entire hill, carrying it on his head, for the construction of the temple of Chandi. In course of a single night the temple was constructed by Viswakarmā. The spire was decorated with diamonds, emeralds and sapphires. Looking glasses were fitted on the sides of the spire. A white *chowrie* and triple flags also decorated it. Arrays of corals and pearls shed such a brilliant lustre in the temple that it seemed that the darkness of the new-moon night had been replaced by the grandeur of the full moon. Pictures of various descriptions were made to adorn the temple of the goddess Chandi. The image of the goddess was made of gold and two golden jugs were placed on either side. The image of the god Siva seated on his favourite bull, the god Kartikeya, mounted on his peacock, and the god Ganesh on his mouse were all made of gold. Hanumān dug tanks by simply scratching the earth Their banks resembled small hillocks, so much earth was taken out to make the tanks deep. The ghats and paths were all constructed with stones of various colours. The water of the river Bhogavati (which flows in the nether world) oozed up to fill the tanks. Fruit and flower gardens were finally laid out on the sides of the tanks."

Yet another description of a temple by the celebrated poet Bharatchandra may not be quite out of place here.[1]

পাষাণে রচিত কৈল চারিখান খাট।
নানাবর্ণ পাষাণে রচিত নাছবাট॥
শূন্য দেখি সরোবর বীর মহাবল।
পাতাল ভেদিয়া তোলে ভোগবতী জল॥
সরোবর বেড়ি বিশাই করিল উদ্যান।
রসাল পনস রম্ভা রোপে হনূমান॥" ইত্যাদি।

কবিকঙ্কণ মুকুন্দরামের চণ্ডীকাব্য, পৃঃ ৩৩।

বিশ্বকর্ম্মা গুনি, নিজপুণ্য গুণি,
দেউল কৈলা নির্ম্মাণ।

"The architect-god Viswakarma made the temple of Annapurnā with precious stones. The altar raised on this occasion was also made of gems. Viswakarmā himself was struck with the beauty of the temple. He raised walls round the temple and inside it excavated a tank with ghats, adorned with diamonds. The four sides of the tank were decorated with emeralds and sapphires. The *Pātāl*-Ganga or the Bhogavati (which flows in the Hades) oozed up into the tank, such was its depth. The water was very cool, odorous, deep and pure. Crystal swans were made for the tank. Their beaks and feet were made with corals. Their feet were made specially red. Lotuses of various kinds were artistically made with various precious stones and the bees on them were also

রতন দেউল, ভুবনে অতুল,
কোটি রবি পরকাশ।
দেউল ভিতরে মণিবেদীপরে,
চিন্তামণির প্রতিমা।

* * * *

দেউলের শোভা দেখি বিশাই মহিলা।
চৌদিকে প্রাচীর দিয়া পুরী নির্ম্মাইলা।
সম্মুখে করিলা সরোবর মনোহর।
মাণিকে বান্ধিলা ঘাট দেখিতে সুন্দর॥
সূর্য্যকান্ত চন্দ্রকান্ত আদি মণিগণ।
দিয়া কৈলা চারিপার অতি সুশোভন॥
তুলিলা পাতাল-গঙ্গা ভোগবতী জল।
সুশীতল সুবাসিত গভীর নির্ম্মল॥
গড়িলা স্ফটিক দিয়া রাজহংসগণ।
প্রবালে গড়িলা ঠোঁট সুরঙ্গ চরণ॥
সূর্য্যকান্ত মণি দিয়া গড়িলা কমল।
চন্দ্রকান্ত মণি দিয়া গড়িলা উৎপল॥
নীলমণি দিয়া গড়ে মধুকর পাতি।
নানা পক্ষী জলচর গড়ে নানা জাতি॥ ইত্যাদি।

ভারতচন্দ্রের অন্নদামঙ্গল, পৃঃ ১৪৮-১৪৯।

made with azure-coloured gems. Birds and aquatic animals of multifarious types were also formed of the same kinds of precious materials."

The following account of temple-building is to be found in the Dharmamangal poems of Sitārām Dās.[1]

"The temple of Kāmakhyā Devi was situated in the south-west of the city of Kamrup. The area of the temple extended over one '*yoyana*' (twelve miles). There the conch-shells sounded even without being blown. There were the flags attached to the staffs to adorn the temple. The temple itself was five thousand cubits in height and the flags one thousand cubits. There were forty-eight gates and eighty-eight stations for the sentries. The northern side of the temple was occupied by the Yogis and the north-eastern by the Dākinis, engaged in performing mystic rites. The hero Kālu surveyed everything in connection with the temple."

In spite of poetic exaggerations, apparent in these descriptions, it cannot be denied that there are some grains of truth in them. Elaborate description of stones being used as materials leads us to suppose that though brick was the usual material, stone was not quite unknown. Although Fergusson is loath to give the Bengalis the credit of possessing any knowledge of stone-buildings, he has been constrained to admit that they knew the use of a kind of black marble which according to him, 'seems to be an indurated potstone

[1] কামাখ্যার মেড় গিয়া পাইল ঈশানে।
ধর্ম্মমঙ্গল সীতারামদাস ভণে॥
দেখিল দেবীর মেড় যোজনপ্রমাণ।
বিণা বায় শঙ্খ বাজে দণ্ডীর নিশান॥
পাঁচ হাজার হাত উচ্চ দেউল গঠন।
পতাকা হাজার হাত ঠেকিল গগন॥
বারগণ্ডা দেহারা বাইশ গণ্ডা থানা।
উত্তর দেউল দেখে যোগীদের থানা॥
ঈশানে ডাকিনী সাধে আপন সাধন।
কালুবীর সকল করেন নিরীক্ষণ॥

ধর্ম্মরাজের গীত, সীতারাম দাস।

of very fine grain, and which takes a beautiful polish. Many fragments of Hindu art in this material are found among the ruins, and if carefully examined might enable us to restore the style.' [1]

One of the peculiar features in connection with the building of temples was the use of glass.[2] These were fitted to the walls and even to the spires, probably to enhance the lustre when the sun's rays were reflected upon them. The whole temple thus looked dazzling and inspired awe and reverence in the minds of the pious pilgrims.

It appears that the materials ordinarily used for the construction of spires were of different colours—blue, black, white, red and yellow.

[1] See History of Indian and Eastern Architecture, by Fergusson, Vol. I, p. 253.

[2] See History of Indian and Eastern Architecture, by Fergusson, Vol. I, pp. 322-325 :—

"There is one other peculiarity common to both Hindu and Jaina architecture in the north of India that requires notice, before proceeding to describe particular examples. It is the form of the towers or spires called Sikharas 'Vimanas' which invariably surmount the cell in which the images of the Tirthankaras are invariably placed in oblong or square-cells and those of Hindu deities in square—generally cubical cells of no great dimension, and that these cells receive their light from the doorway only. It seems also an invariable rule that the presence and position of the cell should be indicated externally by a tower and spire, and that these towers though square or nearly so in plan should have a curvilinear outline in elevation..... Take for instance the celebrated Black Pagoda at Kanarak in Orissa. The upper part of the tower, to some extent, overhangs its base.

It bends inward towards the summit, and is surmounted by what is called an 'Amlaka'—a massive circular coping stone, which supports a vase called 'amritakalasa' or 'Amrita-karaka,' *i.e.*, 'dew-vessel.' Whatever its origin this 'amlaka' is generally surmounted by a flat dome of reverse curvature, in the centre of which stands the 'Kalasa' 'Karaka,' or pinnacle, in the form of a vase, generally of very beautiful and graceful design...The one hypothesis that occurs to me as sufficient to account for this peculiarity is to assume that it was a constructive necessity. If we take for instance an assumed section of the diagram (Woodcut No. 184, p. 324), it will be seen how easily a very tall pointed horizontal arch, like that of the Treasury at Mycanae referred to above, p. 312, would fit its external form. In that case we might assume that the tower at Bodh-Gaya took a straight-lined form like the doorway at Missolonghi and the gate of Lions at Mycanae, while the Hindus took the more graceful curvilinear shape, which certainly was more common in remote classical antiquity, and as is found in Persia may have reached India at a remote period."

The spire contained a vase (usually golden) which was characteristic of a temple.[1]

The pillars [2] seem to be an essential element in the construction of temples. The description of crystal pillars by poets as mentioned before might not be all a myth.

We hear of these crystal pillars even in our nursery stories. The use of crystal which is found not only in connection with the pillars but also in general construction-works, as will be shown later on, prove extensive glass trade in Bengal. This fact in also substantiated by the Manasāmangal poems (as of Bansidās) wherein we find mention of glass as an important item of export. The 'Periplus of the Erythrean sea' fully substantiates this fact. Mention of crystal is also found in the Mahābhārata, Savā Parva, wherein we learn that Duryyodhana mistook a piece of crystal to be water and thereby got discomfited. Pillars whether made of crystal or some other materials are in themselves sufficiently interesting and as such deserve special notice.[3]

The following parts of a temple are worthy of special mention :—

(*i*) পোতা ... Plinth.
(*ii*) বেড়া ... Wall.
(*iii*) কলস ... Vessel.

[1] See among others Sunya Purān (Dharmasthān) by Rāmāi Pandit (10th-11th century).

[2] See among others Rāmāi Pandit's Sunya Purān (Dharmasthān).

[3] "The pillars (*i. e.*, stambhas or Lāts) are common to all the styles of Indian architecture With the Buddhists they were employed to bear inscriptions on their shafts, with emblems or animals on their capitals. With the Jains they were generally Dipdans or lamp-bearing pillars, but sometimes supporting quadruple figures of a Jina; with the Vaisnavas they as generally bore statues of Garuda or Hanuman; with the Saivas they bore the trisula symbol or were Dipdans and flagstaffs; but, whatever their destination, they were always among the most original and frequently the most elegant, production of Indian art.

"In the south of India among the Jains, as mentioned in a later chapter, such pillars are very common, usually standing singly in front of the temples, and were apparently intended to carry quadruple figures of Tirthankaras known as Chaumukhs. One class of the stambhas at Hindu temples was intended to carry lamps at Festivals of which woodcut No. 203 (Kailas temple, Elura) represents a specimen, but another class the Dhwaja-stambhas like the above at Elura, are frequently in pairs and bear the symbol of the sect-Trisula or Garuda."—Fergusson, pp 54 and 347. The mention of pillars is found in early Bengali works.—See Sunya Purān, Dharmasthān, 20-21.

(*iv*)	চূড়া	...	Spire.
(*v*)	বেদি	...	Altar.
(*vi*)	হোমশালা	...	Place for sacrificial fire.
(*vii*)	নাটশালা	...	Amusement-Hall (Theatre).
(*viii*)	বাদ্যঘর	...	Music-Hall.
(*ix*)	অতিথিশালা	...	Guest-house.
(*x*)	ভোগশালা	...	Shed for the cooking of offerings to the deity.
(*xi*)	স্তম্ভ	...	Pillar.
(*xii*)	নাছবাট	...	Path.
(*xiii*)	সরোবর	...	Tank.
(*xiv*)	উদ্যান	...	Garden.
(*xv*)	প্রাচীর	...	Outer-wall.
(*xvi*)	দ্বার	...	Gate and door.

In Bhāratchandra's Annadāmangal the description of artificial birds and lotuses, etc., made for decorative purposes attracts our admiration. The location of the different compartments of a temple has been clearly indicated by Dwija Kamallochan.[1]

Forts and Fortified Cities.

The Dharmamangal poems supply us with information regarding the knowledge of the Bengalee people about the construction of forts and citadels. These poems though full of exaggeration and poetic fancies contain an element of truth in them. The following description of the citadel of Maenagad from the Dharmamangal poems by Govindaram Banerjee may be cited by way of illustration :—

[2] "The Eastern gate was the principal one and made of stones. It was so high that the birds could not cross it. The stone gates

[1] Curiously enough the recently discovered ruined temple of Oniah in Egypt bears similarity with the Bengali temples.
See Egypt and Israel by Petrie, pp. 102-105.

[2] পাথরে নির্ম্মিত পূর্ব্ব প্রধান দুয়ার।
পক্ষী পার হতে নারে পর্ব্বত আকার ॥
পাথরা কপাট পিপীড়ার নাহি পথ।
দেখিয়া লক্ষ্মীর হ'ল পূর্ণ মনোরথ ॥

had no openings even for an ant to pass, which excited the admiration of Lakshmi who worshipped them with offerings of flower and water and went to the northern gate. It was made of steel and fitted in a steel wall in such a way that when closed even the winds had no access through it. After worshipping this gate too, Lakshmi walked on to the western gate. This side of the fort was made of copper and so a copper-gate stood there. It was built in a way that it hardly had any opening even for a thread to pass. After duly finishing his worship here, Lakshmi visited the southern gate which was made of wood. The buildings on this side were all made of wood. The southern gate was also duly worshipped. It was constructed in such a way that there was no room even for the dust to enter."

Sitārām Dās, another author of Dharmamangal poems gives us some side light of the fortified cities of the olden days in his description of the defence of the city of Kamrup.

পুষ্প জল দিয়া পূর্ব্ব দ্বার বাচাইয়া।
উত্তর দ্বারেতে লক্ষ্মী উত্তরিল গিয়া॥
লোহার প্রাচীর দ্বারে লোহার কপাট।
কেমনে আসিব সৈন্য নাহি বায়ু বাট॥
বাচায়্যা উত্তর দ্বারে দিয়া পুষ্পজল।
পশ্চিম দ্বারে গেলা লক্ষ্মী পায়াদল॥
অরুণ কিরণ ধরে তাম্র গড় খান।
তাম্রের কপাট বিশ্বকর্ম্মার নির্ম্মাণ॥
সূতার সঞ্চার নাঞি নিবিড় কপাট।
লক্ষ্মী বলে কোন পথে প্রবেশিব ঠাট॥
পুষ্পজল দিয়া দ্বার করিয়া পূজন।
দক্ষিণ গড়ের দ্বারে দিল দরশন॥
কাষ্ঠের কপাট দ্বারে অট্টালিকা গড়।
দিল পুষ্পজল দ্বারে সামন্ত ঝকর॥
ধূলিরেণু প্রবেশ করিতে নাঞি তায়। ইত্যাদি।

গোবিন্দরাম বন্দ্যোপাধ্যায়ের ধর্ম্মমঙ্গল

[1] The hero (Kālu) passed through the outermost gate which was one *yojana* in height, resembling a mountain. The defensive barrier which Kālu met was a trench or moat eighty-one cubits in width. Then he met a bush of canes, interspersed with '*keā*' shrubs, extending over a space of sixty cubits. Around this was another trench, the very sight of which frightened away the enemy. Its depth was seven cubits and breadth fifty cubits, thus resembling a river of ordinary dimensions. In it there were crocodiles and 'Makaras' (fabulous dolphins) in large numbers. Kālu passed the seven defensive structures and finally reached the city.

Another description of the fortified city of Burdwan as given by Bhāratchandra in his Annadāmangal may be of interest in this connection. [2]

"There were seven fortifications surrounding the city of Burdwan. In the outermost compound resided the 'Kolāposhas,' *e. g.*, the English, the Dutch, the French, the Danes and other foreigners (all famous artillerymen) who came there for trade from distant countries. Within the next defensive walls there were Mahomedans

[1] "প্রবেশ করিল বীর সমুখ দুয়ার।
যোজন প্রমাণ উচ্চ পর্ব্বত আকার॥
গড় দেখি সমুখে একাশী হাত খাণ্ডা।
সাড়ি পদ্ম ঘোড়ার বলিতে নাঞি দাণ্ডা॥
তারপর বেতগড় ষাটি হাত খানা।
কেআবনে দেখি কত পিব্যাসীর থানা॥
গুয়া গড় গভীর দেখিয়া প্রাণ উড়ে।
সাত হাত দরিয়া পঞ্চাশ হাত আড়ে॥
লাখে লাখে কুম্ভীর মকর অবতার।
অইরূপ সাতগড় হয়্যা গেল পার॥"

—ধর্ম্মরাজের গীত (সীতারাম দাস)।

[2] "প্রথম গড়েতে দেখে কোলাপোষের নিবাস।
ইংরেজ ওলন্দাজ ফিরিঙ্গী ফরাস॥
দিনেমার এলেমাল করে গোলন্দাজী।
সফরিয়া নানাদ্রব্য আনয়ে জাহাজী॥

of all denominations, *e. g.*, the Sayads, the Malliks, the Sheikhs, the Moghuls and the Pathans. Some of them were reading Turkish and Arabic with an admixture of Persian while others counted beads. Around the third fortification were the brave and warlike Kshatriyas, expert in the use of arms. Within the fourth enclosure lived the brave Rajput warriors who acted as guards of the King's palanquin, while within the fifth dwelt the Rāhuts (ambassadors) together with the Bhāt [1] Brahmans who were employed as ambassadors and envoys to foreign courts. Inside the sixth resided the Bundelas (Rajputs from Bundelkhand) who acted as keepers of the royal treasury which required the observance of strict vigilance. The millionaire merchants fixed that place as their abode. Thus visiting the six defences the prince of Kānchi entered the seventh or the innermost defence-walls."

দ্বিতীয় গড়েতে দেখে যত মুসলমান।
সৈয়দ মল্লিক সেখ মোগল পাঠান॥
তুরকী আরবী পড়ে ফারসী মিশালে।
ইলি মিলি জপে সদা ছিলিমিলি মালে॥
তৃতীয় গড়েতে দেখে ক্ষত্রিয় সকল।
অস্ত্র শস্ত্রে বিশারদ সমরে অটল॥
চতুর্থ গড়েতে দেখে যত রাজপুত।
রাজার পালঙ্গ রাখে যুদ্ধে মজবুত॥
পঞ্চম গড়েতে দেখে যতেক রাহুত।
ভাট বৈসে তার কাছে যাতায়াতে দূত॥
ষষ্ঠ গড়ে দেখে যত বোঁদেলার থানা।
আঁটাআঁটি সেই ঘরে থাকে মালখানা॥
সেই গড়ে নানাজাতি বৈসে মহাজন।
লক্ষ কোটি পদ্ম শঙ্খে সংখ্যা করে ধন॥
* * *
এইরূপে ছয় গড় সকল দেখিয়া।
প্রবেশে ভিতর গড় অভয়া ভাবিয়া"॥ ইত্যাদি।

—ভারতচন্দ্রের অন্নদামঙ্গল (পৃঃ ২৬০—২৬১)

About the institution of Bhāts see Indo-Aryans, Vol. II, p. 293.

The peculiar notion of the Bengali poets that a fortified city should have seven defensive enclosures might be based on facts. About the number of defensive fortifications they curiously enough stuck to the mystic number of seven. The idea that a defensive battlement should be surrounded by bushes and prickly shrubs remind us of the similar contrivances adopted by the Africans for defensive fencing-works in which these bushes are still employed and are known as the 'Zariba.'[1] In the late Madhist war in Africa this kind of fencing was much resorted to by the Egyptian army for protection against the Madhist incursions. We are not quite aware of any particular case of a fortified city in Bengal exactly as described by the poets, but the extensive ruins of Rampal (in East Bengal—the last capital of the Senas), Gaud, Dhekur and Maynāgaḍ suggest the existence of such things.

The custom of worshipping the gates of a fort bears strange similarity with the worshipping of the ships on the eve of a sea-voyage. The extraordinary height and thickness of the walls of a fortified city,[2] though now may seem a myth, might not be

About a Zariba at Bir Gowi in Darfur—Slatin Pasha described as follows :—

The station at Bir Gowi "was surrounded by a square Zariba, each side of which measured about one hundred and eighty paces, and consisted of a thorn barricade about twelve feet thick and six feet high ; on the inside the ground was raised to enable the men to fire over it from a platform, and the whole was surrounded by a ditch nine feet wide, and about nine feet deep."—Fire and Sword in the Sudan, by Slatin Pasha, p. 67.

[2] Traces of very thick and massive wall have been recently discovered in recent excavations at Tell-el-Yehudiyeh about twenty miles north of Cairo, which bears striking similarity with the description of our poets and show that bigness was perhaps the fashion in the ancient world (*cf.* the great wall of China). That walls of stupendous nature might be built with brick is really wonderful. Bengal was perhaps not behindhand in this respect from Assyria and Egypt. The following lines are quoted about the fortification of Tell-el-Yehudiyeh (surrounding the old Oniah temple) from Petrie :

"Working over from the eastern side of the hill first blocks of brick-work were met with, sunk in the ground, which had formed the foundation of a massive fortification wall along the edge of the platform. Next a few bricks and scraps of wall and further on stood the base of the opposite wall of a court. Then at the north end was a thick foundation, part of the outer wall and across the court was another narrow foundation dividing it in two, forming an outer and inner court. At the south end of this was a very massive pile of brick foundation, 55 feet long and 17 feet wide, all of solid brickwork, excepting a narrow groove of the axis... ..

quite so, as the instances of the forts at Bharatpur (C. I.) and Gwalior may be cited in this connection. The ruins of the Mahomedan forts at Dacca and Egāra Sindur show the stupendous structure of Indian forts. The moats of the medieval fortresses of Europe with the draw-bridge and portcullis bear some resemblance to the defensive structures of ancient India and so of ancient Bengal.

The principle of town-planning followed the time-honoured customs and the Sāstras, modified according to the taste of the Mahomedans in later days when the latter were the rulers of the country. Each guild generally occupied one part of a town. Moreover, a capital city, possessed concentric circles of defences and walls as the deserted places at Delhi, Agra and other would signify. Bernier described in clear terms the arrangement of defences of a Moghul city which was sometimes nothing but a moving camp. Bengal being an important part of the Moghul Empire surely adopted the practice. The description of Burdwan by Bhāratchandra in the celebrated Annadāmangal and the concentric walls and residences was perhaps an exact representation of a Mahomedan city wherein people lived near or apart according to their connection with the existing government. Similar was the condition of Pekin city under the Emperors. In this city around the Imperial quarters lived the Mandarins or government officials and the Manchus (people of the same nationality as the Emperors). The Chinese lived somewhat apart—outside the walls. The foreigners including the foreign legations lived at the outermost part of the city. Such a system is still partly in vogue in China.

The following description of a town by Dwij Abhirām will give an idea of a Hindu town.[1]

The large square building thus marked out, over 70 feet by 50 feet, is on the highest part of the mound and completely dominated the temple courts ; the west face of the great mound, the northern tower, and both of the approaches. It must have been the castle or citadel. Of the great stairway from the plain there remain two thick walls of brick, still eleven feet high, although the upper part and all the stairs have been destroyed. The walls were nearly four feet thick and between them the space is filled with over six feet of gravel and sand, to form a basis for steps," etc., etc. Egypt and Israel, by Petrie, pp. 102-104.

[1] In the Sanskrit work Arthasāstra by Kautilya, description of houses and town-building are to be found. The Yātaka stories (1st 227 and 346, 4th 378, 5th 5

"The Pāndavas saw with wondering eyes the beauty of the city of Manipur, where all were followers of Srikrishna. The houses were built on all sides of the town. They were tinged with the paint of 'Hingul' and 'Haritāl.' The roofs were decorated with flowers. There were exquisite cane-works on the roofs adorned with peacock-feathers. The spires were made of gold and jewellery and contained white flags. There were

and 6th 577) adds much to our knowledge of house-building in ancient India including Bengal. See also an article 'Artha-Sāstrē-Samājchitra' by N. Banerjee in the Sāhitya Parishat Patrikā.

হৃদয় পরম সুখে আখি অণিমিখে দেখে
মনিপুর অতি সুমোহন।
অনুপম পুরী শোভা জগজন-মনোলোভা
সবে তথি কৃষ্ণ পরায়ণ॥
বিচিত্র নির্ম্মাণ ঘর চারিপাশে থরে থর
বিচিত্র হিঙ্গুল হরিতালে।
অনুপম পুরী শোভা জগজন মনোলোভা
কুসুমরচিত চারু চালে॥
বান্ধে সুরঙ্গীনবেত আচ্ছাদি বসন নেত
শিখিপুচ্ছ সুমোহন সাজে।
মণিমুকুতার ঝারা উপরে কনক বারা
তথি শ্বেত পতাকা বিরাজে॥
গৃহে গৃহে সুনিকট বিচিত্র দেউল মঠ
ক্ষেত্রী বৈশ্য শূদ্র নানাজাতি।
ধূপদীপ উপহারে কৃষ্ণ আরাধন করে
কি পুরুষ কিবা নারী তথি॥
দেখি মণিপুরময় গৃহে গৃহে দেবালয়
বিচিত্র চৌখণ্ডি শাস্ত্রশালা।
সভে রূপ গুণময় অঙ্গে আভরণচয়
শত শত শিশু করে খেলা॥ ইত্যাদি

—দ্বিজ অভিরামের মহাভারত।

temples attached to every house and 'Maths' everywhere.....The people were all devout worshippers of Sree Krishna. Every house possessed a hall set apart for the discussions of the Sāstras. These were very artistically made. The following description though containing exaggerations might bear some truth showing the idea entertained by Bengali poets about ancient cities.

"The houses were built of glass or crystal with the 'Jhārā,' or vases, bedecked with pearls, with golden flags fluttering above. The roofs too were made of crystal. There were tall trees of various species in the city with stone-pavements round their base. At every door of the houses there were betel-nut and cocoa-nut trees (auspicious signs). The houses at Mathurā (capital of Kangsa) were of various colours resembling, as it were, the paradise of Indra." [1]

The city of Burdwan [2] as described by Bhāratchandra furnishes us with an accurate picture of a Hindu city, modelled after the Islamic style.

[1] স্ফটিকের ঘর সব মুকুতার ঝারা।
নেতের পতাকা উড়ে সুবর্ণের ধারা॥
সুধাকর নির্ম্মিত ঘর স্ফটিকের চাল।
বিচিত্র বিচিত্র বৃক্ষ দেখিতে বিশাল॥
নানাবৃক্ষ দেখে সব বাঁধান পাথরে।
গুয়া নারিকেল শোভে দুয়ারে দুয়ারে॥
নানাবর্ণে বিচিত্র কংসের মধুপুরী।
স্বর্গে শোভা করে যেন ইন্দ্রের নগরী॥

—ভাগবত (মালাধর বসু)।

[2] চলে রায় পাছু করি কোটালের থানা।
দেখে জাতি ছত্রিশ ছত্রিশ কারখানা॥
চৌদিগে সহর মাঝে মহল রাজার।
আট আট ষোল গলি ছত্রিশ বাজার॥
থামে বান্ধা মত্ত হাতি হলকে হলকে।
শুড় নাড়ে মদ ঝারে ঝলকে ঝলকে॥

"The prince of Kāñchi left the Police station and inspected the various quarters of the city. He saw the workshops of the thiry-six subcastes of the Hindus. The royal residence stood at the centre of the city, all other houses clustering around it. There were sixteen lanes and thirty-six bazars. A large number of elephants were tied down to pillars in batches, and were emitting ichor and moving the trunks to and fro. The horses imported from various countries such as Iraq, Turkey, Arabia and countries over-seas were all tied to the pillars, in their thousands. Who can count the number of camels, asses and the mules? Such was also the case with birds. Domestic animals and birds of all descriptions were kept in this city. Temples were to be seen in every house and the sound of conch-shells and bells heard, and the worship of the God Siva,

ইরাকী তুরাকী তাজী আরবী জাহাজী।
হাজার হাজার দেখে থামে বান্ধা বাজী॥
উট গাধা খচর গনিতে কেবা পারে।
পালিয়াছে পশু পক্ষী যে আছে সংসারে॥
* * *
ঘরে ঘরে দেবালয় শঙ্খঘণ্টারব।
শিবপূজা চণ্ডীপাঠ যজ্ঞ মহোৎসব॥
* * * *
দেখিয়া নগর শোভা বাখানে সুন্দর।
সম্মুখে দেখেন সরোবর মনোহর॥
শানে বান্ধা চারি ঘাট শিবালয় চারি।
অবধুত জটাভস্মধারী সারি সারি॥
চারি পাড়ে সুচারু পুষ্পের উপবন।
গন্ধ লয়ে মন্দ বহে মলয় পবন॥
টল টল করে জল মন্দ মন্দ বয়।
নানা জলচর পক্ষী খেলিয়া বেড়ায়॥
শ্বেত রক্ত নীল পীত শত শতচ্ছদ।
ফুটে পদ্ম কুমুদ কহ্লার কোকনদ॥

—ভারতচন্দ্রের অন্নদামঙ্গল্ (পৃঃ, ২৬২-২৬৪)।

recitations of the descriptions about the exploits of the goddess Chandi, sacrifices, and Mahotsavas (the Vaisnava religious feasts) were performed. The prince now saw a fine tank before him, the four ghats of which were constructed with lime-stone. By the side of each of these ghats was to be seen a temple (dedicated to Siva) crowded by a great number of Saiva ascetics, conspicuous for their matted locks, and bodies covered with ashes. There were flower-gardens all around the tank. The fragrance of flowers was carried in all directions by the southern wind (*lit.* the wind coming from the Malayas). The water of the tank looked transparently clear with a large number of aquatic birds floating on the surface. The lotuses of all colours, such as white, red, blue and yellow, adorned the tank.[1] The grandeur of the city struck the prince."

The following were the divisions of a city in ancient days (specially a capital city) which deserve special notice :—

(*i*)	কারখানা ...	Workshops (owned by various castes).
(*ii*)	চক ...	The chowk-bazar or the Central Market-place.
(*iii*)	কোতয়ালী চবুতারা	The Police Station.
(*iv*)	সরোবর ...	Tanks.
(*v*)	শিবালয় ...	Temples (dedicated to god Siva).
(*vi*)	ফাটক ...	Prison-house.
(*vii*)	রাজার মহল ...	Royal palace.
(*viii*)	মালখানা ...	Treasury or Strongroom.
(*ix*)	রাজপুতের গড় ...	Fortified barracks for the Rajput body-guards of the King.
(*x*)	রাহুতের গড় ...	Legations.
(*xi*)	মহল্লা ...	Separate residential houses for the various castes and professions.

These exist even to this day in many of the towns of India. Dwija Abhirām, Mukundarām and particularly Bhāratchandra

[1] Much care was taken for the excavation of tanks in old days. The following description of tanks by Hiuen Tsang left by him on his visit to the great University of Nalanda may not be out of place here.

"All around pools of translucent water shone with the open petals of the blue lotus-flowers ; then and there the lovely kanaka-trees hung down their deep red blossoms and woods of dark mango-trees spread their shade between them." Indian Sculpture and Painting, by E. B. Havell, p. 106.

described at length the main divisions of a city very much on the same lines.

The royal palace[1] contained nine gates, the court-apartments for guards and treasury and inner apartments. From the eleventh century downwards we get almost the same picture of a Hindu court except in so far as it was modified after the Mahomedan style in the later days. The court-house was perhaps situated inside the palace and possessed nine gates, the city itself having seven defensive walls and gates as we see in Bhāratchandra's Annadāmangal. The royal palace was probably a small town in itself inside the bigger area of the city, like the Kremlin of Moscow. The court-room was a big hall with rows of pillars supporting the roof. The 'Ārajbegi,' an officer in charge of petitions (addressed by people to the king) usually took his stand by the side of a pillar. In Bhāratchandra's Annadāmangal we find that horses and elephants were tied to the pillars. From what remote period of time such a custom had been prevailing in this country is not known, but it may be said, that it was considered as enhancing the grandeur of royalty in the days of Islamic rule. Of what type these pillars were we do not know, but they might resemble those favoured by the Jainas for serving the purpose of lamp-stands.

Adjacent to the royal palace was located the royal treasury. It was perhaps very strongly built as the description of Bhāratchandra shows.

The Chowk-bazar or the Chādni-chowk (the market-place of the city) was usually located close to the royal palace and built in accordance with the Islamic practice.

The 'Bālākhānā' or a two-storied house formed a part of the royal residence and was perhaps used by the inmates of the royal house to watch the people on special occasions.

The 'Nahabat' or a small room for the musicians was always an important adjunct to the royal palace in the days of the Islamic rule. The rich also possessed it as they do now.

The Kotowali or the office of the prefect of police with the jail attached to it deserves mention. The jail was known as the

[1] See Bhārat Chandra's Annadāmangal, Maenāmati Songs, Yayanārāyana's Harililā and Krittivās's Autobiographical Accounts.

Kutghar or 'Bandi-ghar' and was generally an underground cell, similar to what is known to have been existing in Europe in the 18th century and so vividly described in the celebrated work 'The Count of Monte Cristo.' The Dharma songs, the Chandi-Kāvya and the Mymensingh ballads (recently brought to light by Dr. Sen of the Calcutta University) give elaborate description of the prison-houses of old.

The prison-house has been thus described by Narasingha Vasu in his Dharma songs, in connection with the imprisonment of Lāusen.[1] "Lausen was arrested and taken to the prison by order of the minister. Shackles were put on his hands and chains round his neck and a heavy stone was placed on his breast. His feet were also bound in a chain known as the Dārukā and the rim of a broken pot was made to hang round his neck. His matted hair was again tied by a rope by means of which he was suspended from the roof of the cell. The smoke issuing from the burning husk below nearly suffocated the prince Lausen. Besides two sets of sharp razors were arranged on the two sides of the prisoner so as to cut his person at the slightest movement."

This system of punishment bears strange resemblance to that obtaining in Europe, especially in England, during the reign of

[1] লাউসেনে বন্দীশালে নিল পোতা মাজী।
পাত্র বলে বেটাকে দিলাম ভাল মাজী॥
হাতে হাতকড়ি দিল গলায় শিকল।
বুকে তুল্যা দিলেক পাথর জগদল॥
ডাড়ুকা দিলেক পায় যেন দশ মণ।
গলায় দিলেক হাড়ী সংশয় জীবন॥
জটে দড়ি দিয়া টাঙ্গে চালের বাতায়।
উমা মুরি খাল্য যেন তুষের ধুলায়॥
খরশান ক্ষুর সব রাখে দুই পাশে।
লড়িতে চড়িতে মাংস কাটে অনায়াসে॥

—নরসিংহ বসুর ধর্ম্মরাজের গীত।

The building of a prison-house with sharp razors fitted on to the walls, is curious indeed.

Stephen. The use of a pot round the neck of a criminal, as described above, reminds one of the system of pillory as existed in Europe and the use of a heavy stone was perhaps peculiar to this country.

Every Hindu capital contained an execution ground or 'Mashān' as it was called, a type of which existed in Cooch Behar till the other day. A temple of Kāli always formed a part of the execution place. A metal-pointed bamboo-pole known as the 'Sool,' was kept there for impalement. In Bhāratchandra's Vidyāsundar and Dharma-songs are to be found descriptions of an execution ground.

Ordinary houses may be divided into two classes, namely, those belonging to the rich and those belonging to the poor The description of a rich man's house given by Mālādhar Vasu, as mentioned previously, helps us to form an idea of the same.

The following parts of a residential house attract our notice :—

(*i*)	চাল	... ...	Roof.
(*ii*)	কণকধারা (ঝারা)	...	A golden vase set at the top of a house.
(*iii*)	ঝাণ্ডা	... ...	Flagstuff.
(*iv*)	বেড়া	... ...	Walls.
(*v*)	খুঁটি	... ...	Poles or posts.

The following were the parts of a curvilineal roof made of bamboos, reeds and other materials.

(*i*)	সারক	... ...	Bamboo-poles placed horizontally over the frame-work.[1]
(*ii*)	কয়া	.. ...	Split bamboo placed in close-array across the 'Sāraks' of a roof.
(*iii*)	টুয়া	... ...	The top of a curvilineal roof.
(*iv*)	পাইর	... ...	The bamboo pieces joining the frame-work of posts supporting the roof.
(*v*)	পাতি	... ...	Bamboo pieces or metallic sheets to protect the angles of the four walls.[2]

[1] See Chandikāvya by Kamal Lochan.

[2] See Manasāmangal by Vijaya Gupta. The terms are still in use in East Bengal, specially in the District of Mymensingh.

Houses whether belonging to the rich or to the poor, were generally made of thatch and bamboo. The quality of a house used to be judged by the workmanship displayed and not by the materials used. The use of canes for building purposes was remarkable. In many cases canes were coloured and artistically formed into pictorial representations. These are to be seen even to this day in East Bengal where mud-walls are scarcely to be found. In the Chandikāvya by Kavikankan we find the roof of the vessel of merchant Sreemanta, Dhanapati's son, built artistically with canes. In the Mymensingh ballads we find animated descriptions of houses exhibiting all the workmanship and peculiarities of house-building (not excepting the cane-work). The use of peacock feathers for adorning a house as described in the Dwij Abhirām's Mahābhārat and in the Mymensingh Ballads [1] seems novel. The doorways [2] (Bāra-Duāri, *lit.* containing twelve doors) as mentioned in these ballads is indeed peculiar. A room possessing no less than twelve doors is not to be found now-a-days. The roofs of a big house were composed, as they are composed now, of four or eight frames. The houses were divided into a number of apartments. The house of a rich man would usually consist of five apartments.

It is not true, as stated before, that the Bengalis did not use stone as building material.[3] Stone pillars have recently been unearthed from various places of Bengal, shewing admirable architectural workmanship. But stone was used as building-material only by the rich, the Rājās and Rāj-chakravartis of old. Ordinarily the people of Bengal, specially of Eastern Bengal where the rivers

[1] See the story of Maluā and other stories of the Mymensingh Ballads (Bengali Version, pp. 7, 8, 15, 18, 19, 27, 62, 114 and 221, ed. by D. C. Sen) for an elaborate description of Bengali houses of old.

[2] *Cf.* the Bāra-Duāri (a pucca building with twelve doors) of Niamutullah of Gouḍ. See the following lines in Gauḍer Itihāsh by R. Chakravarti, Vol. II, p. 16 :

"নিয়মতউল্লার বারদুয়ারী চতুষ্কোণ দালান। এই দালানে বারটী দরজা আছে। ইহা প্রত্যেক দিকে ৪৯ ফুট প্রশস্ত। মধ্য প্রকোষ্ঠ ২১½ ফুট বর্গ। চারিখান প্রস্তর ফলকে কোরাণের বচন উৎকীর্ণ আছে।"

[3] That the Bengalis did actually possess such buildings has been admitted by Fergusson in a passing way in his work, Ancient and Eastern Architecture, as referred to previously.

are so treacherous, used to construct straw-buildings and the whole art of the Bengali architects was employed in beautifying the roofs and walls with workmanship of high aesthetic order, using fine canes, wrought into designs of a great variety.

If it is true that other parts of the world imitated the style of curvilinear roofing from Bengal,[1] as stated by Fergusson, then surely this Bengali style has been adopted by the Dravidian people in Southern India as we find in the stone-built 'Raths.' Thus writes Fergusson :—

".....The oldest and most interesting group of these monuments are the so-called five 'Raths' or monolithic temples standing on the sea-shore to the south of the other rock excavations. One of these, having an apsidal termination, appear in the centre of the preceding woodcut (No. 185) and little detached from the rest. The other four standing in a line running from north-east to south-west looked as if they had been curved out of a single stone or rock, which originally, if that were so, must have been between 35 ft. and 40 ft. high at its southern end, sinking to half that height at its northern extremity, and its width diminishing in like proportion. The first on the north is the Draupadi's Rath—a mere pancala or cell 11 ft. square externally, and with a curvilinear roof rising to about 18 ft. high (Woodcut No. 186). Apparently it was once crowned by a finial of some sort, but its form cannot now be ascertained. This Rath is the most completely finished of the five and is now unique of its kind but must have belonged to an extensive class of buildings when it was executed, and their form consequently becoming important in the history of the style. The cell inside measured 6 ft. 6 in. depth by 4 ft. 6 in. across, on the back wall of which is a four-armed sakti or female divinity, probably Lakshmi, with some attendants : the Dwārpālas also are females, as are the figures on the north, east and south sides."[2] There are also other Raths such as those of Arjun, Bhima and others.[3]

[1] A brick-built house with curvilinear roofing still exists at Madhupur in the District of Mymensingh.

[2] See History of Indian and Eastern Architecture, by Fergusson, pp. 329-331.

[3] See also among other works Cave Temples of India (Fergusson and Burgess), p. 116, and Bengali Temples and their General Characteristics, J.A.S.B. 1909, p. 147. See also an article "বঙ্গীয় স্থাপত্যের ধারা" by Nanigopal Mazumdar, read in the eighth sitting of Bangiya-Sāhitya-Sammilan at Burdwan, 1321 (B.S.).

A few words more from Fergusson may not be out of place here. In course of his remarks on the Bengali architecture, he says :—

"The city of Goud was a famous capital of the Hindus long before it was taken possession of by the Mahomedans. The Sen and the Pala dynasties of Bengal seem to have resided here, and no doubt adorned it with temples and edifices worthy of their fame and wealth. These, however, were probably principally in brick, though adorned with pillars and details in what used to be called black marble but seems to be an indurated pot stone of very fine grain, and which takes a beautiful polish. Many fragments of Hindu art in this material are found among the ruins; and if carefully examined might enable us to restore the style. Its interest, however, principally lies in the influence it had on the Mahomedan style that succeeded it. It is neither like that of Delhi, nor Jaunpur, nor any other style, but one purely local, and not without considerable merit in itself; its principal characteristic being heavy short pillars of stone supporting pointed arches and vaults in brick—whereas at Jaunpur, for instance, light pillars carried horizontal architraves and flat ceilings. The general character of the style will be seen in the example from a mosque, called Qadam-i-Rasul at the south-east gate of the fort at Goud, and is by no means devoid of architectural spirit. Bara Sonā Masjid, outside the fort to the north-east, is perhaps the finest memorial now left at Goud. Built by Nasarat Shah in 1526, it is 168 feet in length by 76 feet outside, with walls 8 feet thick and faced inside and out with hornblende. It has eleven arched entrances in front, each 5 feet 11 inches wide, and 14 feet high. These enter the front corridor, the arches of which support the eleven domes of the roof. Beyond this is the masjid proper, of which the roof has all fallen; it had three longitudinal aisles supported by twenty pillars; and there were eleven mihrabs in the wall. At both sides of the doorways at the end of the corridor, and at the back corners were polygonal minarets of brown basalt, six in all, but their heads are now ruined. From its massive solidity and size this is an imposing building; indeed this characteristic of the Goud architecture forms a striking contrast to the lighter arcades of much of the Saracenic style.... One of the most interesting of the antiquities of the place is a minar standing just outside the fort to the east. For two-thirds

of the height it is a polygon of twelve sides ; above that circular, till it attains the height of 84 ft. The door is at some distance from the ground, and altogether, it looks more like an Irish round-tower than any other example known, though it is most improbable that there should be any connection between the two forms...It is perhaps a pillar of victory a *jay-stambha*, such as the Kutb-Minar at Delhi." [1]

Several types of peculiar houses, mentioned in the old Bengali literature, are noticed below :—

Garden-house.

The prevailing custom of building a garden-house with separate areas reserved for fruit trees, flower-plants and medicinal herbs is found in the Manasāmangal poems by Bansidās.[2] From his description we find that the garden-house used to be constructed in the northern side of the area, allotted for the residential purposes. Tanks were dug and cocoanut trees were planted around it. Among other kinds of fencing, we find mention of the use of ' Mandār '— a kind of prickly plants. Growing of banana plants, as described in the poem, is a practice prevalent in the country-side down to the present times.

The description of a steel-house and an elaborate account of its construction as found in the Manasāmangal poems deserve some notice. It is described thus:—

"Chānd called in fourteen hundred workmen to his presence to build a steel-house. The architect who was chief of them—was Tārāpati. He was a man of versatile genius and possessed large hands and long rough hair. He had in his right hand a hammer and in his left hand a balance. His hair was yellow and his waist was bent. His nose, eyes and the whole face were black as soot. The house to be built was made of steel and should possess only one door.....Meditating the name of Viswakarmā, the architects built at the outset a number of workshops. The ' gābars ' and the ' Pāiks ' were engaged in thousands to carry coal in sacks from the store-house to the work shop. Pig-iron, in large quantity, was collected in piles resembling

[1] See History of Indian and Eastern Architecture, by Fergusson, pp. 253-259.

[2] See the Manasāmangal poems by Bansidās, pp. 212-213.

so many hillocks. Then the iron was put into the fire. When it became red-hot by constantly blowing the forge, it was moulded as desired by means of repeated hammering from the sinewy hands. There was great din and bustle in the workshops. Some fashioned plinth, some iron posts, some doors and some bolts. The expert architect, Tārāpati, managed his work very creditably and made the measurement of the steel-house which was nine yards in length and seven yards in breadth. Then he fixed the posts on earth and began the roof-work by standing on these posts. After finishing the structure of the roof he took in hand the 'ruās' which he fixed on it, and then completed the top of the roof which he built very strongly. Then Tārāpati descended from the roof and attached the four steel walls on the four sides of the house. The architect kept only one door at one side. It was made also so carefully that even there, there was scarcely any room left, when closed, for free ventilation." [1]

[1] (চাঁদ সদাগরের গুয়া বাড়ী নির্ম্মাণ)

লোহার বাসর নির্ম্মাণ।

* * * *

বিপরীত কর্ম্ম করিতে চাঁদ ভাল জানে।
চৌদ্দ শত কর্ম্মকার ডাক দিয়া আনে॥
তারাপতি কর্ম্মকার সকলের প্রধান।
অধিক গুণ তাহার জানে সর্ব্বকাম॥
দীর্ঘ দীর্ঘ হাত পা মাথায় ঝাটা চুল।
ডান হাতে হাতুর বাম হাতেতে তুল॥
পিঙ্গল মাথার চুল বেকা কাকালি।
নাকে মুখে চক্ষুতে লাগিয়াছে কালী॥

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সুন্দর লোহার ঘর তাহে ঘাট পাট।
একভিতে দ্বার থুইয়া লাগাও কপাট॥
কুলুপ কপাট চাপিয় এক ভায়।
বায়ু না সঞ্চারে যেন পিপীড়া না যায়॥

The construction of a steel-house as described here bears some resemblance to the corrugated iron sheds of to-day. It cannot be said with certainty if these steel-houses were really corrugated iron-houses. The excellence of the construction-work described by the poet and the general appearance of the architect himself rightly suggests the foreign pedigree of such a man. He might be a Chinese workman. The Chinese carpenters are noted for their joinery and are largely employed in Bengal even now in construction-works both by Government and by private firms. The description of iron-melting and mouldering in

আবাসের বাহিরে আছে ঠাঞি স্বতন্তর।
সেইখানে গড় গিয়া লোহার বাসর॥

* * * *

সকল কামার মিলি করিলেক ধ্যান।
বিশ্বকর্ম্মা স্মরি সভে পাতিল দোকান॥
গাবর পাইক লইয়া জায় হাজার হাজার।
ভাণ্ডার হইতে লোহা নেয় গোলার অঙ্গার॥
বিদায় লইয়া কর্ম্মকার চলে আথে বাথে।
ঘরের স্থানে ভাও গিয়া করে ভাল মতে॥
সকল পাইক লইয়া একত্র করিল মেলা।
ভাণ্ডার হইতে আসে লোহা অঙ্গারের ছালা॥
পর্ব্বত প্রমাণ লোহা থুইল রাশি রাশি।
দোকানের অগ্নি দেখি বড় ভয় বাসি॥
কেহ লোহা পোড়া দেয় কেহ তার হাতি।
আগুনে পুড়িয়া লোহা করিলেক পাঁতি॥
অগ্নি হেন জ্বলে লোহা দেখি লাগে ভয়।
প্রভাত কালেতে যেন সূর্য্যের উদয়॥
অতি তপ্ত হৈল লোহা অগ্নির সমান।
দোহাতিয়া বাড়ী দিয়া করে খান খান॥
লোহা তাঁতাইয়া কামারগণ করে গণ্ডগোল।
কেহ বলে তাঁতা কেহ বলে তোল॥
একেবারে কামারগণ করে হুড়াহুড়ি।
কামারের বোল চাল হাতুরের বাড়ী॥

workshops shows on what stupendous a scale these were carried on and how skilful the workmen were, unlike the blacksmiths of the present day.

Tangi-ghar.

The 'Tangi-ghar' or the tower-house was a very peculiar kind of house, built in a lake. A house akin to a 'Tangi-ghar' may yet be

অতি শীঘ্র অগ্নি জ্বলে গায়ে পড়ে ঘাম।
কেহ গড়ে লোহার ভিটি কেহ গড়ে খাম॥
হাজারে হাজারে কামার করে কিলকিল।
কেহ গড়ে কপাট কেহ গড়ে খিল॥
তারাপাতি কর্ম্মকার চাতুরী ভাল জানে।
বাছিয়া বাছিয়া কামার লইল জনে জনে॥
বিশ্বকর্ম্মা স্মরিয়া স্মরিল দেবী আই।
বিটার বেকা ভাঙ্গিয়া যুথিল ঠাঞি ঠাঞি॥
আড়ে সাত গজ নয় গজ দীর্ঘে।
প্রমাণ করিল ঘর নয় গজ উভে॥
ঝাটিতে সারিয়া কামার করে ত্বরা।
খুটির উপর চড়িয়া ঘর করে সারা॥
চাল গড়ি তারাপতি হাতে লৈল রুয়া।
কসিয়া বান্ধিয়া দড় করে টুয়া॥
ঘর বান্ধিয়া কামার নামিল ভূমিত।
চারিখানা লোহার বেড়া দিল চারি ভিত॥
আগাগোড়া মোড়াইয়া বাসরে দিল ভাও।
পিপীড়ার সঞ্চার নাই না সঞ্চারে বাও॥
চাঁদর কার্য্যে কর্ম্মকারের মনে আশা অতি।
কোণে কোণে মিলাইয়া দিল লোহার পাতি॥
ঘর নির্ম্মাইয়া তারা ঘরে গেল ঝাট।
একভিতে দ্বার থুইয়া লাগাল কপাট॥
বাহির দিয়া তবে সর্ব্বলোকে চাই।
থাকুক অন্যের কাম বায়ু গতি নাই॥

—বিজয় গুপ্তের মনসামঙ্গল

een still existing in a lake at Chhindwara, a district-town in the Central Provinces. We learn from the Mahābhārata that Duryodhana hid himself in a lake which means perhaps that he took shelter in such a house. In Gorakshavijay is found mention of a tower-house, which was the abode of Hara, the great god and Gauri, his divine consort.[1] A kind of house quite different in construction but similar in name is still known as the Tong (tower-house). The *Tong* is still built by the Garos and other aboriginal tribes in the jungly tracts and hills of Assam and Bengal at a considerable height. The house rests on the tops of stout wooden posts. A ladder is kept to facilitate ascent and descent. Similar houses were built in different parts of India by the villagers for protection against raids by the marauding hordes of the Marhattas and Pindaries[2]. These were partly used as watch-towers.

The dwellings of the poor were generally composed of thatched houses. The walls were either mattings or of mud. The mats were chiefly made of bamboo. The poor sometimes could not afford a better wood than that of the Castor-oil plant. The description of a poverty-stricken house is found in Kavikankan. Thus we find,

"Fullarā sat by the side of the goddess Chandi (in incognito) and related her sorrows of poverty. The hut had the shed of palm-leaves and posts of Castor-oil plant which break down at each gust of wind in the first part of Summer (mid-April to mid-May)."[3]

The house of the poor sometimes contained cavities on the 'Kutcha' floor which served the purpose of cups. Thus we find in Kavikankan, the fowler-woman Fullarā saying in distress:—

[1] See Gorakshavijay, Minchetan and Kavikankan Chandi.

[2] cf. Also similar houses in Hill Stations of A. B Ry., E. B. Ry., and Forest offices.

[3] বসিয়া চণ্ডীর পাশে কহে দুঃখ-বাণী।
ভাঙ্গা কুড়ে ঘর তাল পাতার ছাউনি॥
ভেরেণ্ডার খুটী তার আছে মধ্য ঘরে।
প্রথম বৈশাখ মাসে নিত্য ভাঙ্গে ঝড়ে॥

—কবিকঙ্কণের চণ্ডীকাব্য।

[1] "You will be sorry to hear of our sad plight. We take 'Āmāni' (a kind of acid soup) from these cavities on the floor, for want of cups."

The method of house-building has been very graphically described in the aphorisms of Khanā. Thus we gather from them that[2] a house should be built in such a way that there may be a tank on the east side, an orchard or garden on the north, bamboo-groves (essential for house-construction) on the west and an open space on the south. Such a fashion of house-building obviously grew out of sanitary considerations.

This rule has always been observed from time immemorial by the rich and the poor alike. The climatic peculiarities of a tropical country like Bengal necessitate the admission of ample air and light in each room and accordingly separate houses were built around a court-yard. Usually there are more apartments than one in a residence. The outer apartment of a man living in the country and possessing land invariably contains haystalks and cowsheds. The inner apartment always possesses a vegetable-yard and a place to husk paddy.

CHAPTER XI.

RELIGION.

I. Evidence of the Great Ethical Virtues in the Dharma Cult.

A century or so before the advent of Islam in Bengal, Buddhism had deteriorated into the Dharma cult, which as represented in the Sunya Purān, shows some of the essential features of the Mahāyana creed shrouded in popular superstitions. In fact, in all the vernacular poems and folk-tales composed before the Brahmanic revival,

দুঃখ কর অবধান, দুঃখ কর অবধান।
আমানি খাবার গর্ত্ত দেখ বিদ্যমান॥
—কবিকঙ্কণের চণ্ডীকাব্য।

[2] পূবে হাঁদ। পশ্চিমে বাঁশ॥
উত্তরে বাগ। দক্ষিণে ফাঁক॥
—খনার বচন।

stress has been laid on acts, and not on 'devotion,' the characteristic of the latter-day Brahmanic School of faith. 'As you sow, so you reap,' with its corresponding emphasis upon action, was the doctrine that obtained among the Mahāyana Buddhists of the day. This canon of Work provides no place for the intervention of divine mercy, leaving, as it does, every human being to work out his own salvation. The early Bengali poems, prior to Brahmanic revival, record glorious examples of moral power, of abstinence and other sterner virtues of the soul, as opposed to the emotional felicities, extolled in the latter-day vernacular works.

In the folk-lore of Bengal, we come across numerous incidents, which serve to glorify human power. Let us, for instance, take the story of Mālanchamālā. Mālanchamālā uncomplainingly suffers all sorts of miseries sustained by her faith in the efficacy of her own actions.[1]

Loyalty, hospitality, respect for pledges, truthfulness, abstinence and charity were the virtues, which in those days, carried favour with the people of Bengal, and devotional fervour—the characteristic of the Renaissance period—is scarcely noticeable in our earlier literature in an explicit form. Lāu Sen, Kālu Dom, Ranjāvati, Lakshmi, Harihar Bāity and others are described in the Dharmamangal poems to have performed heroic deeds, actuated by the spirit of renunciation and inspired by great ethical virtues. Here again, stress has been laid upon action, as opposed to devotion. Underlying the mythological fable of Lāu Sen's making the sun rise in the West, there is fundamental doctrine of the Buddhist religion, *viz.*, that nothing is impossible for a resolute will to achieve. The following example from Mānik Ganguli's Dharmamangal poems lends support to this belief.[2]

[1] See D. R. Mazumdar's 'Thākur-mār Jhuli.'

[2] বাল্মীকি বশিষ্ঠ ভৃগু ব্যাস আদি মুনি।
পরাশর পুলস্ত্য পুরাণে নাম শুনি॥
কঠোর তপস্যা করে জরাজীর্ণ দেহ।
পশ্চিমে উদয় দিতে পারে নাই কেহ॥
লাউসেন পশ্চিমে উদয় দিয়া এল।
—মাণিক গাঙ্গুলীর ধর্ম্মমঙ্গল।

"We read in the Purānas about the great old sages Vālmiki Vrigu, Vyāsa, Parāsara, Pulastya and others passing through great austerities. The sages could not make the sun rise in the West,—a miracle, performed by Lāu Sen."

It was believed that all the powers including that of working miracles, attributed to the gods and Brahmins by the later Brahmanic school, could be achieved by any and every individual, to whatever caste he might belong, if only he passed through certain religious austerities the 'Tapasyā' and this was the belief that found expression in this legend of the sun rising in the West.

Harihar Bāity, a poor man, as we read in the Dharmamangal poems, sacrificed his life for speaking the truth. When he gave an evidence, before the emperor, about "the sun-rise in the West," of which, he said, he was an eye-witness, he knew it perfectly well that he was thereby incurring the displeasure of the minister, who would not believe in the truth of his assertion and might inflict on him any punishment that would please his capricious nature. But Harihar would, for no fear on earth, deviate from a path believed by him to be the right one. He frankly admitted before the king of Gauda that Lāu Sen had sacrificed his life to make the sun rise in the West, by virtue of a boon granted to him by the god Dharma after the former had gone through a severe course of austerities for three days, and the sun was actually made to rise in the West, though only for twelve '*dandas*' (nearly five hours) [1] And the price he had to pay for his love of truth and supreme fearlessness of consequences was indeed a dear one; it cost him his life. The villainous minister had him arrested soon after, on a false charge of theft and the fatuous king was made to pass on him the sentence of death by impalement.[2]

[1] তিনদিন ছিল রায় হয়ে নব খণ্ড।
তবে হৈল পশ্চিমে উদয় বার দণ্ড॥
—ঘনরামের ধর্ম্মমঙ্গল।

[2] অবিচারে মহারাজ দিতে বলে শূলি।
—ঘনরামের ধর্ম্মমঙ্গল।

Illustrations of such moral heroism can be cited in profusion from the literature of this period ; but they are hardly to be found in the literature of the Renaissance. The account of Lāu Sen's great abstinence and sexual purity gives us a glimpse into the spirit of this age.

When Nayāni, wife of Siva Bārui, approached Lāu Sen with her overtures of love, he proved too strong for her tempting solicitations. He said, [1] "What shall I do with betels, cool sandal-paste and other articles of luxury that you are offering me ? I am an ascetic and hence I do not wish to enter the home of a worldly man for shelter. I have been practising austerities, from my boyhood in the name of the god 'Dharma.' On this Friday, I fast in his name. I shall break the fast on Saturday and then take my spare meal. A devotee of the god 'Dharma,' that I am, I do not care for wordly pleasures. Among us, the Vaisyas, it is not the custom to take meat or fish. I have never used oil to anoint my body. At night, we, two brothers, do not rest our heads beneath the roofs of any house ; we sleep under the Kadamba-tree."

Though the worship of Dharma, no doubt, implies a spirit of devotion, it is not purely spiritual, in the sense in which the Renais-

[1] কি করিব পান গুয়া শীতল চন্দন।
গৃহস্থের বাড়ী আমি না যাই কখন॥
শিশুকাল হৈতে আমি ধর্ম্মের তপস্বী।
শুক্রবার দিন মোর ধর্ম্ম একাদশী॥
শনিবারে পারণাতে ভক্ষ্য ভোজ্য খাই।
ধর্ম্মের সেবক হৈয়্যা সুখ নাহি চাই॥
বৈশ্যবাসের কুলে নাই আমিস্ত ভোজন।
ধর্ম্ম বিনা অধর্ম্ম আমি না করি কখন॥
আপনার জনমে কভু তৈল নাহি মাখি।
নিশি যোগে দুই ভাই কদম তলে থাকি॥
* * * *
প্রবাসে কদম তলা রতন মন্দির।

—রূপরামের ধর্ম্মমঙ্গল।

sance has taken it. The devotion of the followers of the Dharma-cult consists in self-sacrifice, abstinence and other virtues, and not in the mere recitation of the names of the Deity, which has been urged, inculcated and emphasised by the Brahmanic Revivalists, as possessing wonderful efficacy in hastening the spiritual advancement of the people.

Loyalty, especially that of a soldier, to the cause that he fights for, was considered to be one of the most important virtues,—characteristic of this period.

In the Dharma-mangal poems we find a fairly accurate picture of an ideal Hindu soldier. He is ever ready to sacrifice his life in the service of the king. Although he is not a moral propagandist still he will seldom speak an untruth or deviate from the path of virtue, for he believes, with all the intensity of a true believer, that if he fails in his duty, his failings would affect the king adversely. When Kālu was on the point of sacrificing his life, only to keep the word he had pledged to his brother Kāmbā, he said,[1] "You wicked man, you have put on the mask of a saint very successfully. You are a contemptible creature and I hate you with all my heart. My first impulse was to kill you on the spot, but I refrain from doing so, as I am resolved to keep my promise. If I prove false I shall not be the only sufferer in the world to come, but my master Lāu Sen, too, will, to a certain extent, incur the demerit of my transgression. This, indeed is a matter of far greater concern to me. If I fail in my duty

[1] কালু বলে চণ্ডালে ধার্ম্মিক বড় তুঁ।
দেখিতে উচিত নয় তোঝাড়ির মুঁ॥
কি করিব কোথা হতে পরকাল মজে।
এ পাপে পরশে পাছে সেন মহারাজে॥
এ পাপে না হয় পাছে পশ্চিমে উদয়।
সেনের কঠোর সেবা পাছে ব্যর্থ হয়॥
সত্য না লঙ্ঘিমু আমি ইহার কারণ।
অতেব অধম তোর বাঁচিল জীবন॥

—ঘনরামের ধর্ম্মমঙ্গল।

the austerities of Lāu Sen will be of no avail, and the sun will never rise in the west."[1]

The following has been taken from the account of Kālu's death, given in Ghanarām's poems.

"Kālu tied his wife Lakhā tightly (so that she might not obstruct him in his self-destruction). He then turned to the east and made a promise to his brother Kāmbā that he would accede to his wishes. It was done very solemnly in the name of Dharma, by touching the holy water of the Ganges and Tulasi leaf."[2] True to his promise, he then offered himself to be beheaded by his brother, inspite of his wife's intercession; and the relentless brother did not recoil from his projected fratricidal task.

"Lakhā, when she saw her husband killed, in her presence, instantly rode an elephant and attacked her husband's assailant with great fury. She hurled a battle-axe against Kāmbā, which killed the villain at once, and recovered the dead body of her husband with the severed head."[3]

This act of the widowed wife of Kālu testifies to the spirit of the age.

[1] Kāmbā, the wicked brother, had extorted a promise from Kālu, in a moment when the latter was affectionately disposed towards him, to this effect that he would give Kāmbā whatever he might seek from him. Kāmbā, who was all the while intriguing with the minister of Gaud to devise means for killing Kālu, demanded the latter's head in fulfilment of his promise. Kālu, now fully convinced of his brother's wicked machinations, offered his head in fulfilment of the pledge he had once given, though in an unguarded moment.

[2] লখেকে বান্ধিয়া দঢ় কালু সত্য করে।
গঙ্গাজলে তুলসী তাহায় তুলে ধরে॥
পূর্ব্বমুখে বলে কালু এই ব্রহ্মসত্য।
যে কিছু মাগিবি কাম্বা তাই দিব তথ্য॥
—ঘনরামের ধর্ম্মমঙ্গল।

[3] সত্বর কুঞ্জর পীঠে উঠে করে ভর।
দেখে পরাক্রম লখে বলে ধর ধর॥
মেলা টাঙ্গি ফেলায়ে কাম্বার হানে শির।
মাথার সহিত নিল স্বামীর শরীর॥
—ঘনরামের ধর্ম্মমঙ্গল।

Hospitality was considered to be one of the highest of human virtues. The duties of a host were held to be sacred and any violation of them was thought to be sacrilegious.

The host would do anything to propitiate his guest. Even the sacrifice of his life was not too dear a price to purchase the satisfaction of his guest. In fact, the spirit of the dictum সর্ব্বদেবময়োঽতিথিঃ was over-estimated in this period of our history. The story of Karna's killing his own son, Brishaketu, to win the satisfaction of his Brahman-guest may have originated in the very age, which was characterised by a distinct and dominant spirit of renunciation and self-sacrifice. In this fable, the idea of charity and other hospitable virtues has been strained too far. The thrilling story of the execution of Prince Luichandra of the Buddhistic age bears a striking similarity to this legend. Here is an extract from the account of Luichandra's death :—

[1] "I do not require any other meat" said the Sannyāsin, "save that of a human being." He also said "You will be very sorry to hear that I want to eat the flesh of your son Luichandra. O Madanā, see that you do not weep when you dress and cook the meat of your own elder son. I will eat the curry, thus prepared, with great relish." This hideous request shocked the parents of the prince; it stunned them for a moment. The King, however, did not shrink back. In a moment he made up his mind and took a sharp-edged sword in his hand, and killed his beloved lad before the image af the god Dharma." [2]

[1] সন্ন্যাসী বলেন বৃথা মাংস নাহি চাই।
খাই যে মনের মত মহামাংস পাই॥
* * * *
সন্ন্যাসী বলেন শুনে হইবে কাতর॥
পাছে পুত্র ভোজনে মদনা মিছে কান্দ।
বড় ব্যাটা লুহীশচন্দ্র কেটে কুটে রান্ধ॥
সেই মাংস ভোজন করিব আমি সুখে।
বোল শুনি শেল বাজে মা বাপের বুকে॥

—ঘনরামের ধর্ম্মমঙ্গল, পৃঃ ৩৪।

[2] সাধুর সাহস শুনি খড়্গ নিল হাতে।
পুত্রে বলি দেন রাজা ধর্ম্মের সাক্ষাতে॥—ঘনরামের ধর্ম্মমঙ্গল পৃঃ ৩৬।

Then, again, stories are not wanting in our old literature, in which God Himself is described as coming down to the earth in the guise of a human being to test the spirit of hospitality among men. The excesses in which the imagination of the people delighted to revel, in connection with the above virtue, were responsible for the invention of these stories, intended evidently to celebrate the triumph of the virtue of hospitality. People were so greatly fascinated by exaggerated pictures of this virtue that they failed to condemn such a conception as monstrous and inhuman. Hence it is, that the story of Dātā-Karna narrated in various forms, is to be found in abundance in the pages of old Bengali manuscripts that have been handed down to us.

It will now be evident that virtuous deeds were given a higher place than abstract faith. The distribution of rice [1] to the poor and the excavation of tanks for public use are highly praised in the Dāker Vachan, but no where in these aphorisms there is a line calling upon the house-holder to recite the name of God,—a point seldom forgotten in the literature of the Renaissance.

II. Theories of Creation.

The cosmogonical doctrines of the Dharma cult may be traced to a very ancient age—the period of the Vedas. The speculation about the origin of the Universe is based on a text of the Rigveda running thus :—

"Nor aught, nor naught existed then, not the aerial space nor heaven's bright roof. Above what covered all ? Where rested all ? Was it water, the profound abyss ?

"Death was not then, nor immortality. There was no difference of day and night. That one breathed breathless of life (*i. e.* existed but without exerting or manifesting itself) and there was nothing other than it.

"In the beginning there was darkness in darkness unfolded. All was undistinguishable water. That one that lay in the empty space wrapped in nothingness was developed by the powers of heat (or penance).

[1] অন্ন বিন্ন নাহি দান।
ইহার পর ধর্ম্ম নাহি আন ॥—ডাকের বচন, ধর্ম্মপ্রকরণ।

"Desire first arose in it. That was primeval germ in mind, which poets reaching with their intellect discovered in their hearts to be the bond between Being and not-Being.

"A ray of light which stretched across these did it come from below or from above? Then seeds were sown and mighty forces arose and nature beneath and power and forces above.

"Who indeed knows? Who proclaimed it here? Whence was the creation produced? The Gods were later than its production. Who knows whence it sprang?

"He from whom this creation sprang whether he made it or not; the all-seer in the highest heaven, he knows it or does not." [1]—Muir.

The Sunya Purān evidently follows the same theory.

"There was no line, no form, no colour and no sign.

"The sun and the moon were not, nor day, nor night.

"The earth was not, nor water, nor sky.

"The mounts Meru, Mandara and Kailāsa were not.

"The creation was not, nor were there gods, nor men.

"Brahmā was not, nor was Vishnu, nor the etherial regions.

"Heaven and earth were not; all was emptiness.

"The presiding gods of the ten directions were not.

"Nor were there the clouds, nor stars.

"Life was not, nor death, nor pangs of deaths.

"The Lord moved in the void, supporting Himself on the void." etc. [2]

III. Common features in Buddhist and Hindu-Tāntrikism and in the Dharma cult.

Dr. Kern thus refers to the Tāntrik element in Buddhism: [3]

"The doctrines of Buddhism in India from the eighth century downwards nearly coincides with the growing influence of Tāntrikism and sorcery which stand to each other in the relation of theory to practice. The development of Tāntrikism is a feature that Buddhism and Hinduism in their later stages have in common. Examples of austerities and mortification of the flesh which the

[1] See Rigveda, 10, 129.

[2] Dr. Sen's History of Bengali Language and Literature, pp 32-33 and the Sunya Purān by Rāmāi Pandit.

[3] See Kern's Manual, p. 133.

Tāntriks had adopted are found in the literature of the Dharma Cult. The following passage, for example, may be quoted from Ghanarām :

"Oh Lord, do please grant me the boon of a son or, else I shall give up my life at the stake" said queen Ranjāvati. She then offered Arghya to the God Dharma before proceeding to carry out her dreadful resolve. And when meditating upon the great God she suddenly dropped down on the floor, sustaining injuries all over her person and began to bleed. It was now believed that she was dead. Those who witnessed the scene were deeply moved and even the God in heaven could not remain unaffected by this tragic occurrence."[1]

Again the story of Prince Lāusen's austerities may be cited as another example. Says Harihar Bāity,[2] " My duty is to announce the sun-rise by a beat of drums in the southern gate on the bank of the Hākanda. I saw the sun rising in the west. The miracle performed by prince Lāusen cost him his life, as he cut off his head with his own hands and placed it on a triangular framework of wood.

[1] একপুত্রে দান মোরে দেহ পরাৎপর।
নতুবা পরাণ ত্যজি শালে দিয়া ভর॥
পুনর্ব্বার অর্ঘ্য দিয়ে ধ্যায় ধর্ম্মরূপ।
ঝুপ করে ঝাঁপ দিতে শব্দ উঠে ঝুপ॥
বুকে পিঠে ফুটে শাল পিঠে হল ফার।
ঝলকে ঝলকে মুখে উঠে রক্ত ধার॥
হাহাকার করে দেখ যত ভক্তগণ।
দেবতা সবার স্বর্গে টলিল আসন॥
জীবন ত্যজিল রাণী করে ছট্ ফট্।
চাঁপায়ের ঘাটে বড় ঘটিল সঙ্কট॥—ঘনরামের ধর্ম্মমঙ্গল পৃঃ ৪৩-৪৪।

[2] দক্ষিণ দুয়ারে আমি দিতাম ধূমল।
পশ্চিমে উদয় হলো হাকণ্ডের কুল॥
লাউসেন নিয়ম করিল নবখণ্ড।
ত্রিকাঠা উপরে কেটে দিয়াছিলা মুণ্ড॥
বারজন ভক্ত মৈল দ্বাদশ আমিনী।
এই সত্য ধর্ম্ম কথা এই আমি জানি॥—মাণিক গাঙ্গুলীর ধর্ম্মমঙ্গল, পৃঃ ৩৯৭-৩৯৮।

Twelve other devotees and the same number of Aminis (priestesses) also sacrificed their lives to please the god Dharma."

The feats of miracle exihibited by the Tāntriks were quite a peculiar feature, in this age (from the 8th to 12th century). In 'Mānikchandra Rājār Gān' we find Maynāmati[1] described as remaining in fire for seven days and nights and yet coming out unscathed in the end. Even her garments were not burnt. Krittivāsa and Kāsidās, in their earlier recensions of the epics, introduced these elements as they were prevalent in an earlier age and could not possibly exclude them from their version, though they were themselves poets of the Renaissance period. In the Bengali Mahābhārat we find Sudhanwā described to have remained in burning oil for days and nights without being burnt. In the Bengali Rāmāyana, again, we find Rāvana cutting off, one after another, his ten heads to propitiate the goddess Durgā.

The sorceries, played by Mahirāvan are well-known. Hanumāna becomes a fly and whispers his message to the goddess. These do not certainly form a part of the original epic of Vālmiki. These Tāntrik elements are the distinguishing features of the pre-Renaissance literature.

When Tāntrikism took a deep root in the country it was believed that man was superior to gods, which was, however, quite a contrary belief current in the Paurānic period. The idea of salvation through individual efforts was so much emphasised in Tāntrikism that a man's power was considered almost unlimited, provided he could pass through austerities, prescribed in the different Tantras. In Nāthism, which borrowed largely from the Mahāyāna Buddhists, we find gods trembling before men and hastening to execute their commands. Even a woman like Maynāmati compelled the gods to obey her. "Maynāmati filliped her fingers (producing a sound tuḍu, tuḍu) and all the ascetics appeared before her. Goraksanāth who could take any shape he desired, came along in a chariot, known as the Puspa-Rath. The sage Nārada came riding his

[1] সাত দিন নও রাইত ময়না অনলের ভিতর।
পুড়িতে পোড়া না যায় পরিধানের কাপড়॥
—মানিকচন্দ্র রাজার গান।

celebrated "Dheki" (wooden rice-husker) followed by the god Siva, who came on his favourite bull. The brothers Rām and Lakshman reached there with their bows and arrows and the five Pāndavas followed them. Many other sages, also came down to the spot."[1]

Even death, the dread of all living beings, is said to have been conquered by the Tāntriks; thus we find Maynāmati defying death on the strength of her mystic knowledge, the 'Mahā-Jnāna.'

Yama, the god of death, fled from his own court at the mere sight of queen Maynā. The disgrace which the Godā-Yama, a messenger, of the king of death is described to have been subjected to by Maynāmati is a wild feat of imagination showing that according to the Dharma cult, one could make one's personality dreaded even by the most dreaded of gods. In the course of her persuit of Godā-Yama, the transfiguration (which both of them underwent) was the result of acquisition of that power which is ascribed to Tāntrikism. In the European Folk-literature too, we meet with similar stories.[2]

"Godā-Yama became bewildered at this, and changed himself into a carp. The queen transformed herself into a water-fowl and began to beat the carp with her wings. Godā-Yama, thereupon, changed himself into a shrimp, and the queen became a gander and searched out the shrimp from under the water. Godā-Yama next

[1] তুড়ু তুড়ু করিয়া ময়না হুঙ্কার ছাড়িল।
যত মুনিগণকে হুঙ্কারে নামাইল॥
পুষ্পরথে গোরখ বিদ্যাধর।
ঢেকি বাহনে নামিল নারদ মুনিবর॥
বাসোয়ার পিঠিত নামিল ভোলা মহেশ্বর।
ধনুকবাণে নামিলেন শ্রীরাম লক্ষ্মণ॥
পাঁচ ভাই পাণ্ডব নামিল ঠাঞি ঠাঞি।
যত শত মুনি নামিল তার লেখাযোখা নাই॥

—মাণিকচন্দ্র রাজার গান।

[2] See Mabinogion Vol. III, Taliesin, p. 354. See also Sen's Folk-literature of Bengal, pp. 1-15.

flew up in the air in the shape of a dove, but the queen changed herself into a hawk and pursued the dove."[1]

"The pursuit is continued for a long time till Godā-Yama metamorphosed himself into a Vaisnava saint and sat, in an assembly of holy mendicants of that order. The queen changing herself into a fly, took her seat on the head of the saint. Here Godā-Yama is caught by Maynāmati and becomes her captive."

The Sādhu Gorakshanāth, conquered death and could make the impossible happen at his will. When Maynāmati being forced to ascend her husband's funeral pyre, prayed to Gorakshanāth for her rescue the latter at once appeared before her and blessed her in the following terms, "Go, Maynā, home. You will not be burnt by fire—you

[1] ঐটে হৈতে গোদা যম দিশাহারা হৈল।
ছেঁফলা মৎস্য হইয়া জলত ভাঙ্গিবার লাগিল॥
ওরূপ থুইল ময়না একতর করিয়া।
পান কাউড়ি জানোয়ার হইল মূরত বদলাইয়া॥
পাখার সাটনে নি যায় পিটিয়া।
মধ্য দরিয়ায় গোদা যমক ধরিল ঠেকাইয়া॥
ঐত গোদা যম আটিয়া বজ্জর।
ঢেকেয়া ফেলাইয়া ময়নাক দিল লহড়॥
ঐটে হৈতে গোদা যম কোন কাম করিল।
গচি মচ্ছ হয়া কাদাত মিশাইল॥

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রাজহংস হইয়া কাদা ঝারিতে ঝারিতে গোদা যমক নিযায় পিটিয়া।
মধ্য দরিয়াত গোদা যমক ধরিল ঠাসিয়া॥

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ঘরানী কৈতর হৈয়া স্বর্গে উড়ে গেল।
শিকিরাবাজ হৈল ময়না মূরত বদলাইয়া॥
আকাশ হইতে গোদা যমক ফেলাইল টানিয়া॥

—মাণিকচন্দ্র রাজার গান।

will rather feel as cold as in the depth of winter, when you sit on the burning pyre."[1]

When Rājā Govinda Chandra objected to taking a sweeper for his guru, his mother Maynāmati reproached him thus,[2] "The Hāḍi (Hāḍi Siddhā) does not belong to this country, he comes from East Bengal. He has made the sun and the moon his 'Kundalas' or ear-rings. Indra, the King of gods, waves the 'Chāmar' at his bidding. The Hāḍi cooks his meal in the disc of the moon and serves it on the back of the tortoise which supports the earth (the second incarnation of the god Vishnu). Lakshmi herself cooks meal for him. The five nymphs of Indra's heaven play at chess with him and the serpent girl of the nether regions is ready with *silims* of tobacco when he desires a smoke. The goddess Subachani prepares betels for him and Meghnā Kumār, the son of Yama, fans him. He

[1]যাও যাও ময়না তোমাক দিনু বর।
মাঘ মাসিয়া জাড় লাগিবে অনলের ভিতর॥
—মাণিকচন্দ্র রাজার গান।

[2]এ দেশিয়া হাড়ি নয় বঙ্গদেশে ঘর।
চাঁদ সুরয রাখছ দুই কাণের কুণ্ডল॥
আপনি ইন্দ্ররাজা ঢুলাএ চামর।
চন্দ্রের পৃষ্ঠে আন্ধে বাড়ে কুরুমের পৃষ্ঠে খাএ।
আপনি মাও লক্ষ্মী রসুই করি দেএ॥
ইন্দ্রপুরের পাঁচ কন্যা দুয়াপতি খেলায়।
পাতালের নাগকন্যা তামাকু যোগায়॥
শুভচনী বাড়ে গুয়া হাড়িপা বসি খাএ।
যমের বেটা মেঘনা কুমার পাড়খা ঢুলাএ॥
চান্দের পৃষ্ঠে রাঁধে হাড়ি কুর্ম্মের পৃষ্ঠে খায়।
সোণার খড়ম পাএ দিয়া দরিয়া বেড়ায়॥
দরিয়া বেড়াইতে যদি যমের লাগল পাএ।
চিলাচাঙ্গ দিয়া যমক তিনপরে কিলাএ॥
মারিয়া লরিয়া যমক করুণা শিখায়।
হেন সাধ্য নাই যমের পলাইয়া যায়॥
—ময়নামতীর গান।

crosses big rivers with sandals on, and if he ever meets the lord of death, he keeps beating him for hours together when he, the terror of the world, learns how to cry helplessly like a child."

The most degenerated forms of Tāntrikism once held the society in its grip as will be evident from the description of Rājā Govindachandra's boiling his own mother in an oil-vat to test her supernatural powers. Rājā Govindachandra had a very big fire-place constructed and a monstrous vat weighing sixty maunds was placed on it by Khetu. The vat contained oil weighing eighty maunds. Teak wood was used as fuel and the froths that bubbled up on the surface of the oil were repeatedly removed. Thus for seven days and nights the oil was kept constantly boiling. On the seventh day no more froths could be seen.[1]

Into this vat the queen was thrown by the order of her son. These miracles and sorceries form the very back-bone of popular Tāntrikism which is characterised by extravagant fancy and not less by the most monostrous atrocities.

The Paurānik god Siva held a unique position in Tāntrikism. He was revered by the Tāntrik Buddhists and the Hindus alike and figured in the latter day Buddhism of Bengal as a diety next only to Buddha in importance. But the Nātha cult which assimilated some of the essentials of Buddhism, gives a very high place to Siva. In Goraksha Vijaya examples are not rare to prove this. Still, however, the great god trembles in fear at the mention of Maynāmati

তোক বলো ভাইয়া খেতু বাক্য মোর ধর।
তাতাইলা পাতাইলা চৌকা নেও বল আরোপিয়া॥
তিনটা নারিকেলের ফল তেহিরা থিচিয়া।
যাইট মণ কড়াই দিল চৌকায় চড়াইয়া॥
আশীমণ তৈল দিল কড়াইল চড়াইয়া।
শালকাষ্ঠে আগুন দিল শুলকাইয়া॥
উপরের ছাবনী মারিল ভুলিয়া।
সাতদিন পর্য্যন্ত জ্বাল দেয় নিদম করিয়া॥
একদিন দুইদিন পঞ্চদিন হইল।
সাতদিন অন্তরত ছাবনী উঠাইল॥

—মাণিকচন্দ্র রাজার গান।

n account of the '*Mahā-jnāna*' acquired by her by means of tantrik ractices. He is described as having said to the subjects of King Mānikchandra, "Do not divulge my name to Maynāmati, for if ou do so, she will destroy my Kailāsa."[1]

It seems that Tāntrikism was so much prevalent in society that owever much abstruse the cult may have now become it was more r less understood even by the illiterate country-folk in the 9th nd 10th centuries. All the works, dealing with that epoch, are ull of references to this cult. The conversation of Siddhā Goraksha-nāth with his Guru Minanāth, as found in Goraksha-vijaya, illustrates his point. The language of the passage is simple but the mystic import that it bears is a perfect puzzle to lay men unacquainted with the rudiments of the Yoga practices. I give below an extract.[2]

The powers acquired by Tāntrik practices are thus classified by Hemchandra who lived in the 14th century and compiled a Jaina version of the Rāmāyana. Rāvana is said to have acquired miraculous powers by Tāntrik tapasyā.

[1] মোর কথা কন যদি ময়নার বরাবর।
কৈলাস ভুবন মোর কৈর্ব্বে লণ্ডভণ্ড ॥

[2] প্রথমে কহিবা গুরু কায়া পরিচয়।
কায়া কোথা হৈতে পাইলা কাহাতে উদয় ॥
দ্বিতীএ কহিবা গুরু এ তনু কারণ।
অজপা কাহারে বলি জপে কোন জন ॥
তৃতীয়েতে পঞ্চশব্দী বাজে ঘরীআলী।
কহিয়া দেয়ত মোরে করিয়া আকলী ॥
চতুর্থে শ্রীহাটের কহিবা কথন।
কহিবা সকল তত্ত্ব মীন মহাজন ॥
পঞ্চমে কহিবা কথা ঘন পার তালী।
কহি দেও এই তত্ত্ব তোমাকে জে বলি ॥
ষষ্ঠে কহিয়া দেও প্রভুর বিচার।
কেমন মন্দিরে থাকে কি রূপ তাহার ॥
সপ্তমে কহিবা কথা সংসারের সার।
গুরু তুমি কোন জন শিষ্য হও কার ॥ ইত্যাদি।

—গোরক্ষবিজয়, পৃঃ ১৮৯-১৯৫।

IV. The growth of the Bhakti element.

The gradual decadence of Buddhism and the consequent revival of Hinduism brought about a marked change in the life of our society. Gradually the devotional element began to predominate over the Karmavāda or the principle of action. Devotion or 'Bhakti' which is the essential characteristic of the Renaissance period had gradually began to find favour with the Mahāyāna school [1] during the declining days of Buddhism.

Examples of devotional element in the Paurānik Renaissance period are not rare. Thus in the Vaisnava literature we find a canon to the effect that a man can hardly commit sins, however great, during his whole life which cannot be expiated by reciting the name of God only once. The mere recitation of the name of God was considered equivalent to any sort of 'Yoga' or 'tapasyā' in this Kaliyuga. Even in the earliest days of the Saiva-cult, the element of devotion was a recognised feature.

There are lines in the Sunya Purān by Rāmāi Pandit in which the God Siva is advised by the devotee to take recourse to agriculture to earn His livelihood. In these lines the devotee appears to be so much influenced by an exuberance of devotion that he forgets his own self and feels a compassionate pain for the sad plight of his Lord in which he imagines him to be.

In this devotional age men believed too much in the efficacy of prayer. The position of the Brahmans was however, an exception to this. The Brahmans claimed equality with the gods, nay, sometimes a superior status. He was called "Bhudeb" or the god on earth for the extraordinary powers he possessed. We read the following in Kācidās bearing upon the subject :—"It is the Brahman whose anger destroyed the clan of the Yadus—it is he, whose anger effaced the progeny of King Sāgara, it is he, whose anger stigmatised the god moon, it is he whose ire made the sea-water saline, it is he whose wrath made the fire omnivorous, it is he whose anger made the body of god Indra spotted." All other castes trembled before the gods and the Brahmans. In one or two instances

[1] As for instance the Dohās of Kānupāda. See Sāstri's "Bouddha-gān O Dohā pp. 123-132. See also its introduction, specially pp. 6-8.

such as the cases of Durbāsā and Bhrigu, the Brahmans even dared declare themselves superior to the gods. Durbāsā cursed Indra for which he lost his sovereignty over heaven for sometime and the sage Bhrigu is said to have kicked the God Vishnu on the breast. But these instances are rare. In the Paurānik period people did not learn to rely on their own strength but to depend, for everything, on the grace of gods and Brahmans. This spirit of absolutely slavish and soul-killing dependence naturally weakened the Bengali character. But, as has already been noticed, the mentality of the people belonging to the earlier period, when stress was laid on self-culture and development of ethical virtues was quite different. The conception of such characters as the merchant Chānd, Lāu Sen, and others in the earlier period bears testimony to the stamina of the Bengali character. The bold female characters of the Pre-renaissance age cannot but evoke our admiration. Lakhā had to be tied down by her husband Kālu lest she should prevent him from carrying out his resolve of self-destruction. But in the latter age these characters as recast by the Brahmans in conformity with the pervading spirit of the Renaissance, suffered the loss of their moral grandeur to a great extent. A heroic character, such as Sitā, whom Vālmiki invests with queen-like grandeur sinks to the level of common woman at the hands of Krittivāsa and the poets of his school. When Rama unjustly suspects her, she cries like a helpless weakling and scarcely shews that majestic unconcern which we find in Vālmiki's original.

The male characters underwent even a greater transformation. In the place of Hāḷisiddhā or Gorakshanāth whose powers were even felt by the gods, we see Rāmchandra himself, an incarnation of Vishnu praying to the goddess Durgā like a helpless child in his contests with Rāvana. To a devotee divine help was never refused in times of need.

Thus we find in the Chandikāvya :—

"Chandi descended from her place in heaven into the prison of Kālketu. When the goddess saw the hero in chains, she became quite ashamed of herself. When Kālketu saw the goddess before him, he made a reverential bow with tearful eyes. Then Chandi

removed the heavy stone from the hero's breast and also broke the shackles which bound him."[1]

In another instance the same goddess vouchsafed a boon to the merchant Chandradhar of the Manasāmangal poems and "instantly the shackles gave way and the merchant was saved."

In the cases of other gods and goddesses we find similar instances of kindly intervention in favour of devoted votaries.

As the ideas of the Paurānik age took root in the minds of the people, they became quite helpless in every matter and looked to supernatural agency for relief on every occasion.

Signs, symbols and sorceries held their sway upon popular mind, and self-dependence and manly energy became wellnigh extint.

But in the Renaissance period, men became accustomed to resignation which is certainly a great spiritual virtue and the evils of Tāntrikism gradually passed away. The lives of people became more and more regulated by rules of abstinence and other passive virtues. The flowering point of the Renaissance culture was reached in the extraordinary development of Bhakti amongst the Vaisnavas. The age preceding the Brāhmanic revival had no place for the culture of faith, but the influence of Islam was clearly perceptible in the Renaissance cults in the form of a belief in a personal and anthromorphic God. In the place of impersonal nature of worship leading men to identify themselves with God (সোঽহম্), the Renaissance cults distinctly laid a stress on faith in personal gods. In however crude a form, this faith was recognised, the followers of Sakti cult believed their deities to watch and guard their devotees, driving their enemies away and protecting them from all danger with almost the same ardour with which the followers of Islam believed in the intervention of God in their struggles and conflicts with the Kafers.

(To be continued.)

[1] See Kavikankan's Chandikāvya p. 105.

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