

ARTS AND CRAFTS OF ANCIENT CEYLON
FROM PALI AND SINHALESE
LITERARY SOURCES

by

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ABBREVIATIONS

A.S.C.	Archaeological Survey of Ceylon.
CLV.	Cullavagga.
Dhampag.	Dhampiya-atuva-gātapadaya.
Dv.	Dipavamsa.
E.H.B.C.	Early History of Buddhism in Ceylon.
E.Z.	Epigraphia Zeylanica.
I.H.Q.	Indian Historical Quarterly.
Jatag.	Jataka-atuva-gātapadaya.
J.B.A.S.	Journal of the Bengal Asiatic Society.
J.R.A.I.	Journal of the Royal Anthropological Institute.
J.R.A.S.(C.B.)	Journal of the Royal Asiatic Society, Ceylon Branch.
Man.	Manorathapurani.
Mhv.	Mahavagga.
Mv.	Mahavamsa.
P.	Pāli.
Pad.	Paramatthadipani.
Pap.	Papancasūdani.
P.M.V.V.S.	Pali-muttaka-Vinaya-vinicchaya-ṭika.
Pujav.	Pujavaliya.
S.	Sinhalese.
Sadp.	Saddhammappakasini.
Sam Vin.	Samhāvavinodani.

ABBREVIATIONS (Continued)

Sap.

Saratthappakasini.

Sikha.

Sikhavalanda.

Sikhavi.

Sikhavalanda-Vinisa.

Sk.

Sanskrit.

Smp.

Samantapasadika.

Sum Vil.

Sumangalavilasini.

Thupa.

Thupavamsaya.

U.C.R.

University of Ceylon Review

Vap.

Vamsatthappakasini.

Vsm.

Visuddhimagga.

CHAPTER I

AVAILABLE LITERATURE AND SOURCES

After archaeologists and other scholars began to pay attention to the material culture of the people of ancient Ceylon, as revealed in archaeological remains, a considerable body of information on the cultural aspects of these people has been gathered. Foremost amongst these, perhaps, are the reports, memoirs and other papers published by the Archaeological Survey of Ceylon and by individual officers of this department.

The Archaeological Survey was established in 1890, and since then a valuable series of reports and five monographs have been published by the Survey. Of these monographs, two have been devoted to a study of the monuments at Anurādhapura, one to a study of the monuments at Polonnaruwa, one to a study of the Temple of the Tooth at Kandy, and the other to a study of the development of the stūpa in Ceylon, in which Dr. S. Paranavitāna has examined the stūpa and its major aspects. Though this work is mainly based on the results of observations made of actual archaeological monuments in the field, Dr. Paranavitāna has also used literary evidence available to him in the discussion of his subject.

Foremost among the scholars who interested themselves in the study of the cultural heritage of the Sinhalese, is Ananda K. Coomaraswamy, whose Mediaeval Sinhalese Art is regarded as a standard work by most students. This work deals with the arts and crafts of the mediaeval period in Ceylon and as such has no bearing on the present investigation. In his History of Indian Art, Coomaraswamy has devoted only a few pages to Sinhalese Art. The same remarks apply to his work on the Arts and Crafts of India and Ceylon, which like most histories of art deal with mostly the artistic aspects of monuments and objects of art. In the Indian Craftsman Coomaraswamy discusses, on the basis of literary evidence, the relation between art and society in Ancient India and Ceylon. He also discusses such aspects of cultural activity such as the position and training of artists and craftsmen but it would appear that all the texts and other documents that are available today, were not at his disposal when he was preparing this work. Consequently his picture of the cultural situation in Ceylon is not as full as one should desire. Besides, he has not confined himself to one period or one region in this work, with the consequent result that it lacks precision.

Among others who have written on the subject of Sinhalese art are Vogel,¹ and Vincent A. Smith². These

¹J. Vogel, Buddhist Art in India, Ceylon and Java.

²Vincent A. Smith, A History of Fine Art in India and Ceylon.

works too discuss mostly the artistic aspects of art objects and monuments found in Ceylon and have not attempted to discuss either the social aspects of art or the materials, methods and processes used by the different artists and craftsmen.

Thus it will be seen that most writers on the arts of Ceylon have looked at them either from the point of view of the archaeologist or from that of the art critic. But it has often been found that archaeological evidence and the results of art criticism alone were not enough to understand the full significance of the material culture of the ancient Sinhalese. Often, therefore, scholars were obliged to seek the aid of literary evidence in order to understand the significance of ancient archaeological monuments. Dr. Paranavitāna, for example, has made very frequent use of literary evidence to understand and set in their proper perspective some of the ancient monuments of Ceylon, but it must be admitted that his investigations were directed mainly to individual problems that confronted him from time to time. Attention may be drawn in this connection to his work on the Sīgiriya Rock Fortress and the Geḍige at Anurādhapura¹ and his monograph on the stūpa.

Literary evidence has also been put to valuable use in the identification of some of the ancient monuments in Ceylon.

¹J.R.A.S.(C.B.) Vol.I.(New Series) pp.127-60; Vol.XXXV, pp.126-129.

Hocart's identification of the so-called Northern Dāgāba as the Abhayagiri Stūpa built by King Vattagāmaṇi was entirely based on the evidence of the Mahāvamsa and of an inscription discovered at the site of the stūpa.¹ Dr. Parānavitāna has confirmed again on the evidence of an inscription, the site of the important building known as Mahāpāli, situated at Anurādhapura. Earlier the site had only been conjectured by Ayrton, the then Commissioner of Archaeology in Ceylon².

Thus the need for the examination of literary sources for the proper understanding of the art and archaeology of ancient Ceylon cannot be over-emphasized. A true understanding of this ancient art can be achieved only by supplementing the knowledge derived from archaeological studies with the results obtained by an examination of literary sources.

¹ Memoirs of the A.S.C. Vol.1. pp.10-13.

² Memoirs, A.S.C. Vol.III, p.2.

Sources

The literary sources available for the study of the cultural situation in ancient Ceylon can be divided into three classes, as follows:-

1. Pali literary works consisting of the chronicles and the commentaries to the Buddhist Pāli Canon.
2. Sinhalese literary works.
3. Lithic and other Inscriptions.

The Chronicles

The two Pāli chronicles written during the Anurādhapura period are the Dīpavaṃsa and the Mahāvaṃsa. The former is said to have been compiled in the fourth century A.D. by an unknown author or authors, and according to Oldenberg, who edited and translated the Chronicle, it could not have been compiled before the year 302 A.D. up to which date it records the main events of Ceylon history. The lack of uniformity, the uneven style and the occurrence of prose passages in between verse would suggest that this work was more a work of gradual growth, not intended to possess any literary graces.

The Mahāvaṃsa, on the other hand, is a full-fledged poem, adorned with the usual literary embellishments. It is attributed to a monk called Mahānāma who is said to have

lived in the 6th century and some scholars believe that he is the same Mahānāma Thera, who is referred to in the Chronicle as the uncle of King Dhātusena.¹

Like the Dīpavamsa, the Mahāvamsa too relates the history of Ceylon from pre-Buddhistic times up to the end of the reign of King Mahāsena. It contains exhaustive accounts of the works of Kings in ancient Ceylon, in their attempt to promote Buddhism in the island and gives valuable details about the monasteries, stūpas and other religious undertakings of the different kings. Though Chapters dealing with the pre-Buddhistic period in Ceylon appear to have been based on legendary material, the portion dealing with the kings beginning from Devānampiyatissa are based on facts, most of which can be verified from other sources.²

From the death of King Mahāsena, the narrative is taken over by the Cūlavamsa, a continuation of the Mahāvamsa, which has been added to from time to time and the final chapters of the Cūlavamsa bring the history of Ceylon right up to the reign of Sri Vikramarājasinha, the last King of Ceylon.

The first section of the Cūlavamsa dealing with the reigns beginning with Sirimeghavanna up to Parākramabāhu I is attributed to a monk named Dhammakitti, who probably lived

¹I.H.Q. Vol. VIII, pp. 463, 464.

²Mv. Introduction, p.xv.

in the time of King Parakrambāhu I.¹

There is also a commentary to the Mahāvamsa, called Vamsatthappakāsinī. By whom it was compiled and when, are questions that have not yet been settled with any certainty. Geiger held the view that it belongs to a period between 1,000 and 1,250 A.D., while Malalasekera is inclined to believe that it was compiled in the eighth or ninth century A.D.² This commentary is an invaluable aid to the understanding of the Mahāvamsa and contains sometimes additional material which throws considerable light on things and conditions obtaining in Ceylon during the ancient period, for this work was based on material drawn from various early sources, some of which at least provided the material for the Mahāvamsa itself.³

The Aṭṭhakathās

The aṭṭhakathās or commentaries to the different sections of the Pāli Canon were compiled by several commentators the most important of them being Buddhaghosa and Dhammapāla. The former came to Ceylon in the reign of King Mahānāma (409-431 A.D.), while the latter seems to have compiled his works while living at Kāñcīpura, now

¹Cv. I, p.123, f.n.2.

²Vap.pp.cvi, cix.

³Vap. pp.lvi-lxxii.

Conjeeveram, in the 5th or the 6th century, A.D.¹

The original material on which these commentaries were based is said to have been brought from India by the Arahant Mahinda and translated into Sinhalese. Whatever may be the truth of this tradition, there is evidence in the Pāli atthakathās to show that they drew their material from a series of atthakathās - most of them probably written in Sinhalese.² It was these Sinhalese and other atthakathās that Buddhaghosa, Dhammapāla and other commentators drew upon in compiling their own atthakathās.

The Sinhalese atthakathās, which may have been based on a nucleus of material introduced to Ceylon by the early Buddhist scholars who came from India, were being constantly added to, expanded and revised by Buddhist teachers of the different monasteries. Their names are preserved in the Pāli atthakathās and their views are often quoted in them in supporting or refuting a particular view or theory.³ Furthermore, in addition to what was strictly exegetical a large body of legends, tales and contemporary incidents seem to have crept into the Sinhalese atthakathās and it is precisely these portions which provide valuable data in an investigation of the material arts and crafts of ancient Ceylon. They also provide us with short but revealing

¹B.C.Law, A History of Pāli Literature, II, p.393.

²Adikāram, Early History of Buddhism in Ceylon, pp.10-23.

³op.cit., pp.80-87.

glimpses into the lives of the people of ancient Ceylon, recount stories and incidents in the lives of ancient Sinhalese Kings; not recorded in the Chronicles, and describe customary rites and festivities held in important monasteries such as the Lohapāsāda and the Thūpārāma.¹ The substance of the Pāli commentaries, according to Adikāram² was put into final shape (in Sinhalese) in the first century A.D., though modifications may have been made to them during the next three centuries or so until this material was used by Buddhaghosa to compile his commentaries.

Sinhalese Literary Works

The only Sinhalese literary works still extant which can be assigned to the ancient period of Ceylon's history are the Siyabaslakara, the Sikhavalāṇḍa, the Heranāsika, and the Dhampiyā-aṭuvā-gātapadaya. The first is attributed to King Sena I (846-866 A.D.) and the second and the third are usually assigned to the tenth century A.D., while the last work is ascribed to King Kassapa V. (929-939 A.D.)

The Sikhavalāṇḍa and its commentary which seems to have been compiled either at the same time or a little later, were intended to be popular handbooks for the guidance of monks in their daily life. The material regarding the

¹See, Smp. 281, 297, 305, 585; Sum-Vil. 578; Pap 184, 203 etc

²Early History of Buddhism in Ceylon, p. 87.

Vinaya rules are drawn from the Pāli canon and the commentaries to the Vinayapitaka but here and there, particularly in the commentary to the Sikhavalāṇḍa one comes across data and information that is valuable in reconstructing the cultural life obtaining in ancient Ceylon. The Heranasika, being a hand book meant for the guidance of Sāmaneras, has the same features as the Sikhavalāṇḍa as a source of information.

The Dhampiyā-atuvā-gātapadaya is an inter-verbal commentary in Sinhalese to the Pāli Dhammapadaṭṭha Kathā and contains in addition to what is strictly exegetical and explanatory - scanty items of information useful in an investigation such as the present.¹

The Sikhavalāṇḍa, though assigned to the 10th Century A.D. derives its material from the Pāli Aṭṭhakathās of an earlier date, and any extraneous material in it would, therefore, belong to any period up to the tenth century. Even this material may have been traditionally handed down from earlier times and therefore, at least a part of the material of the Sikhavalāṇḍa may be assigned to an earlier period - though the actual compilation of this work took place in the tenth century.

¹Dictionary of the Sinh. Language, p.xxxii.

Lithic and other Inscriptions.

The inscriptions belonging to the ancient period are for the most part engraved on stone, either on living rock or on the surface of dressed stone pillars or slabs. A few inscriptions engraved on plates of metal and on the sides of caskets and pots have also been found.

The lithic inscriptions can be divided into three classes as follows:-

1. Cave inscriptions.
2. Rock inscriptions.
3. Pillar and slab inscriptions.

Of all the lithic records found in Ceylon, the oldest are the cave inscriptions, which are found engraved on the dr. lines of caves, which were inhabited by the early Buddhist monks of the pre-christian period. Such occupied caves are found in considerable numbers in the North Western, the North Central, the Eastern and the Southern provinces of Ceylon.¹ The inscriptions carved on these caves are usually very short and often record the name of the donor of the cave and the statement that it was given to the monks of the four quarters both of the present and of the future. The language used in these records has been termed Sinhalese Prākṛit,² and the script used is Brāhmī. All these cave records are

¹U.C.R. Vol.VII, facing p.142, The Epigraphical map of Ceylon

²Dictionary of the Sinhalese Language, xxiv.

pre-christian in age, the earliest of them being assigned to the third century B.C.¹

Rock Inscriptions

The Rock Inscriptions of the ancient period are of a later date than the cave inscriptions.² They are usually engraved on rocks near a tank or a Vihāra, and record the donation of either a sum of money or a sum of money realised from some kind of tax or interest for the maintenance of a vihāra. They are usually longer than the cave inscriptions which often consist of no more than a dozen words, and are written in Sinhalese Prākṛit. The script used is Brāhmi of a more developed type than that used in the cave records. The fourth century may be regarded as the lower limit of these records, while the earliest is assigned to the reign of King Vaṭṭagāmaṇi, who reigned from 29-17 B.C.

Pillar and Slab Inscriptions.

The Pillar inscriptions came to be set up about the ninth century, almost at the same time as the slab inscriptions. The pillar inscriptions were set up on the orders of the King, on lands granted to monasteries and recorded the immunities granted to such lands. These immunities were intended to prevent administrative officers from exacting from the monasteries illegal levies.

¹A.S.C. Annual Report, 1933, p.14.

²Dict. of the Sinh. Language, xxv.

The slab inscriptions were set up when the King wished to promulgate or revise a series of laws for the guidance of the people or the monks. The Vevälkātiya slab inscription¹, for example, records the laws applicable to the arrest and punishment of criminals, while the Tablets at Mihintale² lay down rules of conduct that should be observed by the monks who dwelt in the Monasteries at Cetiyagiri. The Badulla Pillar Inscription³ though recorded on a pillar, shares some of the features that are normally associated with a slab inscription. Besides a few immunities granted to the people of the district of Miyuguna, it records detailed instructions as to how business should be conducted at the local market.

¹E.Z.Vol.I, 245-246.

²E.Z.Vol.I, 85-90.

³E.Z.Vol.III, 74-78.

CHAPTER II

HISTORICAL BACKGROUND

The historic period in Ceylon, according to the Pāli Chronicles, begins with the arrival of Vijaya and his followers from North India and their settlement in different parts of Ceylon. It has not yet been ascertained whether these early Aryan settlers migrated to Ceylon from the Eastern or the Western part of India. Scholars who have attempted to solve this problem on the basis of the linguistic characteristics of the early Sinhalese language are divided in their conclusions, some asserting that the home of the early Aryan settlers was in eastern India, [IHQ. III, p. 409] and others that it was in North Western India.¹ Owing to the presence in the early Sinhalese language of characteristics of both the western and the eastern dialects of India, yet others have attempted to reconcile the two views by asserting that though the Aryan settlers migrated to Ceylon from the east, linguistic elements from the west also contributed to the formation of the Sinhalese language.²

The Pāli Chronicles credit Vijaya with having founded a Kingdom in Ceylon, with his capital at Tambapanni [mv.vii-74]

¹A Dictionary of the Sinhalese Language, xvii.

²IHQ. Vol. 9, p. 750.

but there is sufficient evidence to show that the early Aryan settlers established a number of settlements before establishing a unified Kingdom. The Mahāvamsa itself refers to a number of settlements established by Vijaya and his companions [Mv. 7. 43-45]. In the Pre-Christian Brāhmī inscriptions of Ceylon, kings are often given the title gamani, a term which has been explained as having meant originally the leader of an army.¹ On the strength of this interpretation it has been suggested that the military leaders who led the early Aryan settlers gradually assumed such powers as to enable them to establish themselves as kings in course of time. But it is also possible that the term gamani meant 'leader of a village or settlement'. Owing to disputes that may have occurred between villages or settlements, these leaders may have assumed the military leadership of their respective villages or settlements, thus gaining strength which in course of time secured for them the claims to kingship.

After King Vijaya there was a succession of several kings, but no reliable information about them is available either in the Chronicles or in the lithic inscriptions. But in the reign of King Pandukābhaya the power of the new rulers seems to have been well consolidated and the

¹C.W.Nicholas, The Titles of the Sinhalese Kings as recorded in the Inscriptions of the third century B.C - to third century A.D., University of Ceylon Review, Vol.VII, 235-248.

administration of the land too seems to have been properly organized. It was in his reign that the city of Anurādhapura was set up as a full-fledged city and capital.

Pandukābhaya was succeeded by his son Mutasiva who in turn was succeeded by Devānampiyatissa in whose reign, according to the chronicles, Buddhism was introduced to Ceylon by the Arahant Mahinda, son of Asoka, Emperor of India. But the view has been advanced by Geiger, Paranavitāna and Adikāram that Buddhism was not altogether unknown to the people of Ceylon¹ before the time of Devānampiyatissa and that perhaps considerable sections of the population had already been converted to Buddhism². Alongside Buddhism a variety of religions and cults, such as Brahmanism, Jainism and the worship of Yakṣas and tree deities had prevailed³ with perhaps the latter cults exercising the greater influence over the mass of the people. There is, however, no doubt that Buddhism was officially introduced to Ceylon in the reign of Devānampiyatissa.

The introduction and rapid spread of the new faith, saw ~~the~~ changes not only in the spiritual life of the people, but also in their material and social life. Immediately after the arrival of Buddhist monks in Ceylon, the first stūpas were built and monasteries were set up in

¹ Geiger, Mahavamsa Trans. Intro. p. xix.

² Adikāram, Early History of Buddhism in Ceylon, p.47.

³ Adikāram, op. cit., p.43.

and around Anurādhapura. A branch of the Sacred Bodhi-Tree at Buddhagayā was planted in the city and became one of the foremost objects of worship of the Buddhists. The King himself took an active share in these activities and built the Mahāyāngana Thūpa and the Thūpārāma and the Mahāvihāra. The art of writing - so essential to the development of a culture - began to be used together with the practice of setting up lithic inscriptions.

It was probably during the reign of King Devānampiyatissa that the foundations of the Kingdom of Rohana were laid in the Southern region of Ceylon, for we are told in the Mahāvamsa that some of the chieftains from this region were given a sapling from the branch of the Bodhi tree brought to Ceylon by Sanghamittā, [Mv.xix, 54, 62].

Devānampiyatissa was succeeded by a number of kings whose reigns were, according to the chronicles, mostly uneventful. But an important development that took place after the reign of Devānampiyatissa was the gradual infiltration of people from South India to Ceylon and at last they began to wield such power, at least in Anurādhapura, as to enable the two Tamil adventurers, Sena and Guttika, to set themselves up, one after the other, as kings of Anurādhapura. After another interval when a Sinhalese king was on the throne, there was a resurgence of the power of Tamils in Ceylon and one of them, Elāra

by name assumed the kingship of Anurādhapura. Elāra came from the Cola country, but was well-known for the just, peaceful and tolerant way in which he administered the land and the various legends related in the Chronicles to illustrate his sense of justice and kindliness seem to suggest that he had endeared himself to the people; even though he was a foreigner and a Hindu by religion.

But soon the peace of Anurādhapura was disturbed. Even though the people of Anurādhapura are said to have been contented with the way the country was administered by the Tamil usurper [Mv.21. 13-14]. Dutthagāmaṇi, a prince of Rohana in the South was soon making preparations to invade Anurādhapura for the purpose of getting rid of the Tamil usurper, and even against the wishes of his father was prepared to set out against the ruler of Anurādhapura. In due course, he gathered together an army and band of zealous and youthful leaders, and setting out from Tissamahārāma marched northwards, subduing a number of fortresses garrisoned by Elāra's men. The final battle took place at Vijitanagara, not far from Anurādhapura, and in this battle the Tamil King was killed and the Tamils vanquished. When Dutthagāmaṇi had thus occupied Anurādhapura, he entered upon the task of promoting the Buddhist religion, which according to the Chronicles was the purpose of this

war with the North¹. With this end in view he constructed the Marīcivattī thūpa, and the great Mahāthūpa together with the monastery called the Lohapāsāda.

Even though Duṭṭhagāmaṇī had succeeded in establishing a unified kingdom, free from interference by invaders from India, soon after his death, the Tamils began to interfere in the affairs of Ceylon, and continued to do so for centuries to come.

One important development that took place after Duṭṭhagāmaṇī, was the practice of constructing large stūpas. The earlier stūpas were comparatively small in size and it was Duṭṭhagāmaṇī who, for the first time in any country perhaps, built a colossal stūpa which set the fashion for the construction of the other great stūpas, the Abhayagīrī-thūpa, the Dakkhinathūpa and the Jetavanathūpa.

The three centuries or so after the death of Duṭṭhagāmaṇī saw a number of important and far reaching changes in the country. The first important change was the gradual improvement of the economic conditions of the country, by increasing the production of rice. For this purpose a large number of tanks and canals were constructed and around

¹Mv.25. 17,18. rajjasukhāya yāyamo nāyam mama, sadāpi ca sambuddhasāsanasseva thapanāya ayam mama.

'Not for the Joy of sovereignty is this toil of mine, my striving (has been) ever to establish the doctrine of the Sambuddha.'

those irrigation works large tracts of land were cleared and prepared for the cultivation of rice. King Vasabha, for example, is credited in the Mahāvamsa with the construction of twelve such tanks and twelve canals, [Mv.xxv, 94-97], while King Jetṭhatissa is said to have constructed six tanks and his son Mahāsena sixteen tanks including the Manhīra tank, one of the largest and most impressive tanks to be seen in Ceylon at the present day. The construction of these tanks is an index to the rapidly increasing prosperity that was being experienced by the country during this period. This prosperity in turn enabled rulers and princes, nobles and high officers of state to confer rich endowments on the monasteries, which perhaps led to a change in the Buddhist order, which as Adikāram remarks, set in after the reigns of Duṭṭhagāmaṇī and Saddhātissa¹.

It was also during this period that so-called unorthodox ideas began to infiltrate into the Buddhist religion, which was regarded by the people of Ceylon as pristine. As early as the reign of Bhāṭṭikābhaya (20+B.C. - 9 A.D.) disputes began to occur between the monks of the Mahāvihāra and those of the Abhayagiri-vihāra,² and we are told in the Mahāvamsa frankly that the Vaitulya doctrine was suppressed in the reign of King Vohārikatissa, (215-237A. It is quite possible that the Buddhists who came to share the

¹Early History of Buddhism in Ceylon, p.77.

²Adikaram, Early History of Buddhism in Ceylon.

fruits of the increasing prosperity of the island were in no mood to practise the ascetic life - characteristic of early Buddhism, but were in a state of readiness to receive the Mahāyāna form of Buddhism.

It is also significant that it was in the reign of King Mahāsena (277-304 A.D.), who as mentioned earlier constructed some of the largest irrigation works in Ceylon, that perhaps the most far-reaching religious upheaval occurred. Soon after Mahāsena became king the Mahāvihāra, the centre of Orthodox Buddhism fell from grace and a proclamation was issued stating "whosoever gives food to a bhikkhu dwelling in the Mahāvihāra is liable to a fine of a hundred (pieces of money). [Mv.37.5].

Then the orthodox monks of Anurādhapura fled to the hill country or to the south. The Mahāvihāra itself and the Lohapāsāda - the most cherished shrines of the so-called orthodox Buddhists were destroyed and the material therein was used to set up new buildings at the Abhayagirivihāra, which for a considerable time was regarded as a centre of Mahāyānist thought. Mahāsena also built the colossal stūpa - called the Jetavanathūpa.

With the death of King Mahāsena, the original Mahāvamsa comes to an end. From the accession of King Siri Meghavanna, (304-332 A.D.), who succeeded King Mahāsena, up to the end of the tenth century when

Anurādhapura ceased to be the capital of Ceylon, the history of the island consists of a series of invasions from South India, disturbed only by internal strife either between contending rulers or factions. A number of events, however, which affected the cultural, economic and religious life of the people are recorded in the Chronicles.

Almost at the outset of this period the Tooth Relic and the Alms Bowl of the Buddha were brought to Ceylon by a prince from Kalinga in the reign of King Siri Meghavanna, and the reign of King Mahānāma, (412-434 A.D.), saw the arrival in Ceylon of the Commentator Buddhaghosa from North India and of the Chinese traveller Fa-Hsien.

Soon after in the reign of King Mittasena, (435-436 A.D. Ceylon was invaded by the Pandys and they remained in power for nearly thirty years, when they were overthrown by Dhātusena, the father of Kassapa I, who was responsible for the construction of the Sīgiriya Fortress. Some of the rulers of this period and pretenders to the throne, when they found it difficult to secure sufficient armed forces to maintain their power, resorted to the expedient of bringing such forces from South India. This practice, though convenient on occasion, enabled the Pandys and other invaders to set foot on the island with confidence, for often these forces who were already in the island joined their compatriots when an invasion occurred.¹

¹G.C.Mendis, The Early History of Ceylon, p. 50.

Towards the end of the seventh century Ceylon was brought into contact with the Pallavas of South India, by Mānavamma, who when his family was overthrown by another king, fled to South India to seek the help of the Pallava King Narasimhavarman, to regain the throne of Ceylon.

In the reign of King Sena I (846-866) Ceylon was invaded by the Pāṇdyans. Supported by the Tamils already in Ceylon they plundered the country and carried away considerable amounts of booty. His successor Sena II (866-901 A.D.) avenged this invasion by attacking the Pandyan country and setting on the throne a pretender, in place of the ruling monarch.

For the next hundred years, Ceylon was embroiled in the intermittent wars that took place in South India between the Pāṇdyans and the Colas who were rapidly becoming a powerful people strong enough to challenge the might of the Pāṇdyans.

In the wars between the Pāṇdyans and the Colas, the Sinhalese supported the former and as a result of this alliance, the Cola King Parāntaka I invaded Ceylon in the reign of Udaya III (964-972 A.D.), but was soon recalled to India owing to troubles in his own country. But Ceylon could not remain free for long from the tentacles of the Cola empire which was fast expanding. The Cola King Rājarāja I took advantage of the troubled state of the

country and invaded Ceylon and occupied every part of it. The conquest was completed by him by the capture of the ruling king Mahinda V. Thereafter Ceylon became a province of the Cola Empire and the Capital, Polonnaruva, was renamed Jananāthapura.

Having surveyed briefly the history of Ceylon up to the tenth century, perhaps it may not be out of place here to offer a few remarks on Ceylon's relations with foreign countries.

During the first phase of Ceylon's history, her connections were mainly with North India, but the people of South India must have had connections with Ceylon from the very early times. It has been seen, however, that with the growth of powerful kingdoms in South India, such as those of the Pallavas, the Pāṇḍyans and the Colas, it was in the fitness of things that Ceylon should have either political or cultural connections with this part of India. These connections are reflected to a certain extent in the art and social customs of the Sinhalese and it could safely be said that Ceylon's connections with the different peoples of India have left their mark on the art remains of the Sinhalese. For instance, some of the early Buddhist sculptures have been described as having features common with the sculptures found at the stūpa at Amarāvati¹ and

¹Codrington, A Short History of Ceylon, p. 187.

the Brāhmī script of the first and second centuries A.D. have been shown to have characteristics shared by the script used in the inscriptions set up during this time in the Andhra country¹.

Both the Sinhalese script and sculpture and architecture have been also influenced by the Pallavas,² The influence of the Pāṇḍyans and the Colas is seen not only in the sculpture and architecture of ancient Ceylon,³ but also in the Sinhalese language, which contains a large number of words and idioms of Dravidian origin, probably absorbed into the language when the Sinhalese were under the influence of these peoples.

Ceylon also cultivated connections with other foreign countries. Greek and Roman traders visited Ceylon, and so did the Arabs and the Persians.⁴ With China, Ceylon had not only cultural connections, but also diplomatic relations.

Kassapa I, for instance, communicated with the Emperor of China by letter.⁵

How these relations between Ceylon and other foreign countries influenced Ceylon culturally has not yet been examined. Probably these relations had no palpable effect on Ceylon's material arts and crafts, but it is certain

¹U.C.R. VII, p. 295.

²U.C.R.VII, p.300; Annual Report, A.S.C., July 1937, pp.16-19

³Codrington. A Short History of Ceylon, p. 186.

⁴Mendis, The Early History of Ceylon, p.56.

⁵Codrington, A Short History of Ceylon, p.30.

that trade relations with these countries must have increased her material resources, which in turn must have enabled her to undertake construction works. Codrington, in fact, remarks that small Roman Copper Coins of the fourth century at one time formed the bulk of the currency used in the island.¹

¹A Short History of Ceylon, p. 32.

CHAPTER III.

CRAFTSMEN IN CEYLON

In the west an art is considered to be quite distinct from a craft. Here an art is defined as the ability to apply skill and taste to production according to aesthetic principles, or as an occupation having to do with the theory or practice of taste in the expression of beauty in form, colour, sound, speech or movement, whereas a craft is defined as dexterity, as in some manual occupation or skillfulness in planning or executing. Thus in the west a painter or sculptor would be called an artist, whereas a person who makes household articles of leather or cane would be known as a craftsman, even though it cannot be denied that the latter too would be guided by aesthetic principles, even unconsciously, in the production of his articles. An artist, both in his own time and afterwards would be known by his name with which his works will be always associated, but a craftsman will usually remain anonymous, unless he produces something strikingly original into which he has devoted all his creative powers, as in the case of some present day designers of pottery. The artist creates, the craftsman merely produces by imitation.

In India however, this distinction does not seem to have been made with regard to the two professions,¹ and throughout

¹ Indian Art, p. 107. Faber & Faber, 1947.

the long centuries of Indian Art no Rembrandt or Wren has survived. The only distinction that seems to have been made was between a master and an ordinary artist or craftsman. Everyone who produced an article, whether he was a carpenter or a painter, was a Śilpi and one who could claim expertness in his field was distinguished by the title ācārya or mahācārya. Tablets of Kassapa IV [E. Z. 1. 90] refer to two craftsmen as vadumaha ādurā (great master carpenter) and āduru vadu (master carpenter). A senior craftsman, not necessarily an expert in his field, was described by the prefix Jetthaka (Vap. 607).

List of Arts and Crafts

The following craftsmen are mentioned in the texts: ayakāra, blacksmith; itthakāvaddhakī, mason; kammāra, blacksmith; kumbhakāra, potter; ś. kotarākī, carpenter; gandhika, perfumer; cammakāra, leatherworker; cittakāra, painter; tunnavāya, tailor; tuḷādhāra, goldsmith; dantasippi, ivory-carver; dussika, clothmaker; naḷakāra, worker in bamboo; peṣakāra, weaver; manikāra, lapidary; rathakāra, cartwright; lekhaka, scribe; vilivakāra, worker in bamboo; silāvaddhakī, sculptor.

Training

The system of training of artists and craftsmen in Ceylon was the same as that which obtained in ancient India. This system exists in Ceylon even up to the present day.

There were no schools in the modern sense of the word, but a master who had specialized in a particular field would take upon himself the responsibility of training one or more pupils - (antevāsi).

A pupil entered the service of a master while quite young and would go through for a number of years, the various stages of his craft, first attending to the aspects of the work requiring little skilled labour but later on graduating to the more difficult stages where experience and knowledge were essential.

This system resembles to a marked extent the relationship between a young novice, antevāsika, and his teacher, ācariya, in the Buddhist order of monks. Just as the young śilpi living and working with his master learnt all that was to be learnt in his art or craft, the sāmanera too lived with his ācariya or under his close supervision, and mastered the dhamma and the other branches of knowledge such as grammar and logic.¹

According to the Māyāmataya,² a work which has been a popular handbook of artists and craftsmen, the master was responsible for the moral upbringing of the antevāsī, for every artist had to follow an accepted code of morality with

¹ Mookerji, Ancient Indian Education, p. 454.

² Stanzas 120-125.

regard to the practice of his profession. It was his duty to fulfil any task entrusted to him in as satisfying a manner as possible. If he defaulted in this duty he would suffer either in this world or in the next.

Every master had at least one antevāsi and patrons considered the competence of the antevāsi as important as that of the master himself, for a large portion of a given commission would be entrusted to the antevāsi. When the mason who undertook to build the Mahāthūpa at Anurādhapura appeared before King Dutthagāmaṇī the first question the King put to him was to inquire of him who his antevāsi was. (Vap.535) Equally important was it for the antevāsi or even a full-fledged artist or craftsman to have a master whose reputation was unimpeachable, both as to character and competence.

POSITION OF CRAFTSMEN

Caste

When the Aryan-speaking immigrants arrived in Ceylon in the 5th century B.C. the caste system in India was a fully developed institution in which all artisans and craftsmen had their social position assigned.

Whether the Indian immigrants introduced this system to Ceylon is a question that is difficult to settle, as evidence bearing on this question is very scanty in the literature pertaining to this period. Nevertheless it is relevant to

summarise here the information gleaned from the Pali Commentaries, the chronicles and the inscriptions, to ascertain the social position of the craftsmen in ancient Ceylon.

Two terms occurring both in the Pali Commentaries and in the chronicles which may throw some light on the organization of artists and craftsmen in ancient Ceylon are the words 'kula' and 'seni'. The Mv. records that a thousand families from the eighteen guilds (seni) were sent with a princess from South India when she came to Ceylon to be the Queen of Vijaya [Mv.vii, 57]. Similarly, members of all the guilds (sabbesam senīnam) accompanied the Sacred Bodhi tree to Ceylon. [Mv. xix. 3.] The Samantapāsādikā (p. 910) explaining the term 'seni' explains it ~~is~~ as the senis of perfumers (gandhikā-seni) and clothmakers (dussikaseni). It will be clear from these references that the word seni is used in the sense of guild. The reference to members from eighteen guilds accompanying the Queen of Vijaya to Ceylon [Mv. vii. 57] perhaps points to the fact that the institution of guilds was introduced to Ceylon in the early stages of the Aryan invasion.

The term 'kula' is used in the Commentaries and in the chronicles in the sense of a "family" generally, but it seems in certain contexts that it connoted the sense of Caste too: For example, the terms P. rathakāra - kula and cammakāra- kula occur in the Manorathapūraṇi [II, 175] and the people of the five castes working at a Vihāra are referred to in the

Jetavanārāma Sanskrit Inscription, [E.Z.I, 89]. Geiger has translated the P. kula [Mv. 19-67] as a guild, but what is meant in this context was only a family of setthis.

As will be shown later in the course of this chapter, villages in Ancient Ceylon were demarcated often on the basis of the occupation of the inhabitants. This feature of the social relations of village life is further proof that the caste-system existed in Ancient Ceylon.¹

As in India, in ancient Ceylon too, the different professions had a specified place in the social set-up, some professions being considered high and others low. Commenting on the word P. Sippa, the Sumaṅgalavilāsinī says that Sippas are of two kinds: the low sippa and the high sippa, [p. 930]. The professions of the barber, the worker in bamboo, the potter and the weaver were considered to be low, whereas the professions of the money-changer, the scribe and the accountant were considered high. Carpentry was considered a low trade, [Sikhavi, p. 43]. Even the professions of the worker in iron, P. ayakāra, the ivory worker, P. dantakāra, and the painter, P. cittakāra, were considered ignoble or at least common, [Sumvil, 157].

It would appear that professions such as those of the potter, the basket worker and the weaver were considered as professions involving much physical labour, if not as being subject to contempt.

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Hutton, Caste in India, p. 182-3.

The Pap. (III.248) recounts the pathetic tale of a young sāmanera who falls in love with a girl. Thinking of dissuading him from marrying the girl, his parents ask him whether he thought they were of high caste and whether he could do the work of a weaver if he insisted on marrying the girl. In reply the sāmanera says: "When I become a layman I shall do the work of a weaver or of a basketmaker. It is immaterial to me."

Even though the evidence available in these documents does not warrant the assumption that there was a fully developed caste system in which each craftsman had a definite function and position, such a system has been in existence in Ceylon at least for the last five hundred years. A similar system existed in India at the time of the arrival of the Aryan speaking people in Ceylon. As we have seen, some traces of a caste system are to be seen in the documents pertaining to Ancient Ceylon. Thus it is probable that the caste system as we find it in Ceylon today existed even in the early stages of the history of Ceylon.

Arts and Royalty

Though the practitioners of the Common arts and crafts were generally not held in high esteem, the arts themselves were not held in contempt, and occasionally members of the royal family learnt some of these arts and became so competent in them that these accomplishments had to be mentioned in the chronicles.

Both in ancient India and Ceylon a prince of the royal family would be given the best education possible, so that he would be able to fulfil his duties as was expected. Traditionally a prince was expected to be well versed in certain arts and sciences, but it is not possible to ascertain whether all princes credited with such accomplishments had actually the knowledge they claimed to have. e.g. Kassapa V is described as "practised in all the arts," p. sabbasippa-visārado, [Mv., 52, 39] and also as the lord of poets, [Mv. 52, 82]

But when we are told that a particular prince or King was well versed in an art such as ivory carving, we are inclined to admit the truth of the statement. It is quite likely that these princes and Kings practised these arts and crafts as hobbies, as in the present day. King Jetthatissa and King Sirimegha were both experts in ivory carving, (danta sippa), [Mv. 37, 100, 101], and we are also told that Jetthatissa actually taught the art of ivory carving to many people. [Mv. 37. 101.]

Moggallāna II had unrivalled poetic gifts (asādhāranakāveyyam, Mv. 41.55.) Līlāvati, Queen of Parākramabāhu, the Great, is described in an inscription [E.Z. I. 181] as one who has reached perfection in all the arts - an epithet not very common in these documents.

It was perhaps because of this interest that princes and Kings took in these arts, both as patrons and as practitioners,

that it was possible for craftsmen to be on terms of close association with members of the royal family. Professional distinction and affluence too would have placed some of the craftsmen among the influential people of a city. Vatuka, a South Indian, became the city carpenter, nagara vaddhakī, of Anurādhapura, gained the confidence of the King and ultimately married a royal princess. [Mv. 34. 20, Vap. 626] The daughter of a scribe (lekhaadhītā) became one of the wives of King Mahasena [Mv. 37.26] When King Subha was threatened with danger by the rebel Vasabha, he entrusted his daughter and the royal insignia for safe-keeping to a bricklayer. [Mv.35,101-104] It may be that King Subha selected the bricklayer as the most suitable person to look after his daughter because such a person would hardly be considered likely to be entrusted with the safe-keeping of a royal princess. But the Commentary to the Mv. describes the bricklayer as a very dear friend of the King. [itthakavaddhakissa piyatarassa sahaṇyassa, V.A.P. 650] King Mahāculi Mahā Tissa (77-63 B.C.) thought it fit to erect a memorial with an epitaph to perpetuate the memory of some of his lapidaries, manikāra, who had died while engaged in the King's service. [J.R.A.S. (CB); xxxvi, 66.]

The Kings of Ceylon considered it incumbent on them to help craftsmen who were destitute and in need of help. They employed them in the construction of palaces and places of worship and also received instruction from them, and therefore

when they were in need they naturally looked up to them for help. King Kassapa IV (912-929 A.D.) and King Viyayabāha I (1056-1111 A.D.) both held annually an alms-giving called dandissara, specially for the benefit of mendicant artists, [Mv. 52.3, 60.22.]

Wages of Artists and Craftsmen

Before proceeding to discuss the wages of artists and craftsmen and the conditions of their service, it is necessary to sketch briefly the system of land tenure existing in Ceylon in ancient times. Information on this aspect of the economy of the land is available in the comparatively large number of lithic inscriptions recording the grant of land by the King to various individuals and institutions, as well as in the Pāli Chronicles. All land belonged to the King and he granted land to different institutions such as monasteries, and also to individuals for various services already rendered to him. Land also was made available to the people who occupied such land as tenants (kudin) and these tenants were required to pay to the treasury a part of the gross produce of the land they cultivated.¹ Besides, the tenants were obliged to serve the King - either as soldiers or as artists and craftsmen, periodically or when his services were needed.

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A Short History of Ceylon, (Codrington) p. 45. 11-12. 53.

Lands were granted to the monasteries both as building sites and as sources of revenue to maintain the monasteries and the monks.

When lands were thus granted the ownership of the land seems to have remained with the King, though in theory ownership passed on to the monastery. In fact, only the produce belonged to the monastery. The produce of the land was devoted to the maintenance of the monastic dwellings and to the provision of food to the monks and servants employed in the monasteries.

[U.C.R. Vol.II, p.92] Sometimes land was given by the King to monasteries with the provision that specific portions of that land be given to particular functionaries and craftsmen employed by the monastery. [Mihintale Tablets. E.Z.I, 107-112].

In addition to the large number of craftsmen engaged in the service of the monasteries and the Palace, there must have been yet other craftsmen who were engaged by the ordinary people. Such craftsmen were apparently paid in cash with meals supplied,¹ as is yet the practice in some parts of Ceylon even today. As examples of such payment we can quote the case of the workman at a sugar mill who was paid twelve Kaha-panas for a period of six months. [Man.II, 61] Another workman at a sugar mill was given lumps of sugar as his wages. [Mv. 34.4.]

Craftsmen and all types of workmen, however, seem to have been impressed on the orders of the King or even on the orders

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P. devasikabhatta-vetana. Man.II.,241.

of Ministers and other officials, and their labour obtained for various construction works, including monastic buildings. It was in order to prevent such abuses that when embarking on the construction of the Mahathūpa, King Dutthagāmaṇi ordered that no workmen were to be employed in that work without adequate payment, [Mv.30, 17,18.] The King's orders were so rigidly enforced that even those who wished to offer their services or contribute materials were debarred from doing so and were therefore forced to adopt various expedients to avoid the vigilance of the King's officers.

The Vamsatthappakāsinī records the case of a monk who, to avoid detection, offered to the masons working at the Mahathūpa bricks of the same dimensions as were being used by them. [Vap. 538]

Monks too were not slow in taking advantage of the readiness of craftsmen to render their services free to the monasteries. When they wanted to make a mansion (pāsāda) monks were permitted to seek the help of craftsmen such as bricklayers, stoneworkers, thatchers and painters, who would then contribute their share of the services or the materials required to complete the building. Sometimes they refused their services and demanded payment. On such occasions the monks had to go begging for rice and other articles and give them to the craftsmen in return for their services. Sometimes craftsmen would refuse either

materials or services and give money instead, which the monks were permitted to accept. [Smp. p.563].

No reliable information is available in the Commentaries and other literature about the actual wages paid to the different craftsmen, but the Tablets of Mahinda IV, provide us a glimpse into the provisions made to maintain a large monastery in the 10th century. In this monastery at Mihintale altogether over one hundred and seventy craftsmen and workmen were employed, and effective provisions had been made to pay and feed these employees. We also get the actual allowances made in food and land to each of these craftsmen and workmen, and a statement from the relevant portions of the inscription [E.Z. 1. 107-113] is given as an Appendix to Chapter III.

According to this statement, it will be noted that the highest paid craftsman was the lapidary and the painter. The stone cutter and the carpenter (1,2) were also granted a substantial amount of land. It would seem that the specialized skill and experience necessary to be a painter or lapidary was recognized by their being granted land in greater measure than was granted to other craftsmen. Craftsmen in the lower grades, such as the potter, were given an allowance of raw rice daily.

Besides specific amounts of land and other emoluments substantial gifts consisting of cash and other articles of value such as ornaments and clothes were usually given on the successful completion of an undertaking. When the mahāthūpa was completed the master builder was presented with a suit of clothes worth 1000 gold pieces, ornamented sandals and 12,000 kahāpanas. [Mv. 30.14].

A twelfth century inscription [Slab Ins. of Queen Kalyānavathī, E.Z.IV. 259] records how the Royal Treasurer, his wife and nephew repaired the mahāthūpa at Anurādhapura and how on the occasion of the subsequent festival they gave gifts to the various craftsmen who performed the different services.

Among their gifts were rings set with gems to the servitors who performed various types of work, wearing apparel to their wives, and gold coins to the scribes and painters.

TRADITIONS OF CRAFTSMEN

The artist and craftsman considered it their duty to perform their service to the best extent of their abilities - it was their dharma. If the work they performed was faulty, they would suffer in hell for their sins. Craftsmen who produce good work will be rewarded with good birth and position in the next world.¹ When a piece of work or a whole project is entrusted to a craftsman, a date was usually fixed for its completion. If anything went amiss, blame was attributed to everybody, ranging from the Superintendent to the menial workman. They would also be deprived of their share of wages and allowances. [Jetavanarama sk. Ins., E.Z. 1-9].

Excellence of craftsmanship was common in ancient Ceylon, and craftsmen could on occasion, in addition to their own trade, engage themselves in other arts where they were not considered quite competent. We have already noticed how some lapidaries were entrusted with the making of bricks by King Macudi. In the reign of Parakramabāhu I when there was a shortage of stone cutters, blacksmiths and goldsmiths were asked to do their work. It is recorded that their work was so skillfully done that the joints of stones could scarcely be noticed. [Mv. 68, 25-27].

Craftsmen were generally organized into separate villages. We often hear of villages of particular craftsmen, such as those of weavers, [Mv. 41.96] of potters, [Visuddhimagga, p.91]

¹ A.K.Coomaraswamy, Indian Craftsmen, p. 69.

of Carpenters [VAP. 606], of monastic attendants, [Mv. 52.26] of lapidaries [E.Z.IV. 222]. Traces of this particular system of organizing the different craftsmen into villages are still to be seen in Ceylon. Present day village names such as Kumbalgamava [Kumbhakāragāma] and Kamburugamuva [Kammāragāma] confirm the existence of this system.

Normally these craftsmens' villages would be situated around a city or town, but there were monasteries, perhaps of very large dimensions, which had special craftsmens' villages attached to them, so that the services of the craftsmen living in these villages could be exclusively secured by the monasteries. We hear, for instance, of a weavers' village called Jambelambaya, and another called Tittinika, being affiliated to the Uttaravihāra and the Mahāvihāra respectively by King Mahānāga, [Mv. 49, 96]. We also come across names of villages such as Sunubolgama (village of the lime-burners) and vadudevāgama (two tank villages of the carpenters, [Mihintale Tablets, E.Z. I. p. 112]).

Sometimes craftsmen lived in the monastery or perhaps near by, [E.Z. I. 6.].

VISVAKARMAN

The conception of Visvakarman was common among Ceylon craftsmen. It was to him they looked up to for inspiration and success in their work. The architect who undertook to construct the Mahāthūpa owed his inspiration to Vissakamma.

It was he again who was asked by Sakra to make bricks for the mahāthūpa, [Mv. 28.7] Visvakarman also appeared as a goldsmith to make a gold vase for the branch of the sacred Bodhi tree brought to Ceylon in the time of King Devānampiyatissa.

Mention is also made of a kammāradeva, patron deity of the blacksmiths; whether he was the same Vis'vakarma it is not possible to decide for want of further evidence.¹

Monks as Craftsmen

Though Buddhism frowns upon arts such as dancing and music, Buddhist monks from very early times took an active part in the practice of some arts and crafts. For example, the Buddha himself is said to have permitted the monks to use looms, [Clv. 5. 28] and it was also possible for monks to undertake the supervision of the construction of Vihāras, without violating the rules of discipline laid down by the Buddha. [Ibid, 6. 17].

How Buddhist monks came to practise as artists and craftsmen can be explained in two ways: it was possible that men who were skilled in different arts and crafts entered the order and later, even as monks, found it difficult to resist the temptation to practise their former chosen art or craft which may have not only given them their daily bread, but also

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Adikāram, Early History of Buddhism in Ceylon, p. 44.

some measure of satisfaction for their artistic temperament. Secondly, it was possible that when living in a district where the services of artists and craftsmen were scarce or expensive monks were compelled to attend to the needs of their monasteries themselves without engaging the services of trained workmen. [Smp. 10]. This was one of the questions discussed at the Council of Rajagaha, and it was decided that the Buddha had approved that monks could attend to repairs in their own monasteries.

Even when trained artists or craftsmen were engaged it was necessary for monks to exercise a certain measure of supervision over the work done by them, for the monks alone were conversant with their requirements and those of the Vinaya they had to conform to. The Vinaya laid down the types of dwelling houses fit for the monks, the kind of furniture they were allowed to use, and however skilled the artist or craftsmen were, the final approval had to be sought from the monk. Furthermore, in sculpture and painting it was the monk who knew the themes which had to be illustrated, for it was he who had mastered the texts containing the present and the past lives of the Buddha, and therefore the subject matter for translation into stone or paint had to be provided by the monk to the artist and the sculptor.

It was for these reasons that we find both in India and Ceylon monks practising different arts, from the very ancient times.

In spite of the fact that the arts were a forbidden field for Buddhist monks as far as the Vinaya was concerned, as time passed it came to be accepted that monks could practice as artists and architects and sculptors if their productions were used either for the use of monks or as decorations for temples. In fact in the monasteries of ancient Ceylon there were monks appointed for the specific purpose of attending to repairs. Monks living in a monastery were classified into three divisions: 1. Navakamma viharī - a monk who lives in a monastery and whose duty was to attend to repairs of the monastery: 2. Uddesa Vihārī - a monk who instructs others: 3. Vāsadhura Vihārī - a monk who merely resides in a monastery without having any specified duties to perform. This classification shows that certain monks, who were perhaps unsuited to the pursuit of the Dhamma or Meditation, were appointed to attend to the maintenance of the monastery where they lived.

In the early days of Buddhism when monks often resorted to caves situated far away from villages for practising meditation, they had to make these caves fit for habitation without any aid from workmen. The Manorāthapūraṇī (pp.44, 45) recounts the story of a monk named Mahātissa of the Cittalapabbata monastery who by himself cleaned a cave and provided it with walls, windows and doors, beds and chairs. The Mahāvamsa (22, 25, 26) relates the story of a sāmanera who placed three stone slabs in the compound of the Ākāśacetiya Vihāra at Kōṭa

as steps

pabbata. Though this kind of unskilled labour had to be performed by Buddhist monks under the peculiar conditions obtaining in Ceylon, the *Sikhavalaṇḍa*, a hand book of disciplinary rules for monks written in the 10th century, forbids monks to perform even such actions as digging the earth or even causing someone else to dig the earth. (p.3) But the Commentary to the same work, written probably during the same period, provides for the digging of a well or pond at a suitable place on the orders of a monk. [Sikhavi, 45.]

Where a monk possessed specialised knowledge which was not available to the lay craftsmen and artists the services of monks were sought and the Community of the monks and the King were compelled to approve such action on the part of a monk. When the relic chamber of the *Mahāthūpa* was being constructed the services of the Arahant Indagutta had to be secured to supervise the sculptures set up therein. [Mv. 30.98]. The Arahant could not have supervised the setting up of these sculptures without the knowledge of *Dutthagāmaṇi*, the King who erected the *Mahāthūpa* or of the chief monks of *Anurādhapura* who were present at every stage of its construction. It could be surmised that Indagutta's services were secured on this occasion not only because he was well versed in the scriptures and the ritual, but also because he was sufficiently informed about artistic matters as to be able to decide what was suitable for the relic chamber of a *thūpa*. The closing of the

relic chamber of the Mahāthūpa was also undertaken by two sāmaneras. [Mv. 31, 118, 119].

Similar interest was shown by mediaeval monks in the construction of churches and some of the great churches were designed by either high ecclesiastics or by one of his monks or canons with an aptitude for planning.¹

There is evidence to show that monks were also engaged as painters and the designers of various objects of artistic value. Monks were not permitted to paint or to make or cause to make figures of clay and other material (Sikha, 8) on the pain of committing a dukkata offence.² This prohibition only emphasises the fact that these two arts were commonly practised by monks in Ceylon and the offence (dukkata) being merely a technical one it could be presumed that the prohibition was not regularly observed.

Further, there was much laxity in the interpretation of this rule. The Commentary explains the term pot rū (p. 78) as "figures of men and women", which shows that what was forbidden was the making of figures of men and women.

The Sikhavalāṇḍa-vinisa, (p. 78) commenting on this prohibition, says that it is proper for monks to cause to be painted stories from the Jātakatthakathā and the Dhammapadatthakathā, and figures of the Buddha.

¹ An Introduction to English Mediaeval Architecture, Hugh Braun, Faber & Faber Ltd., London, 1951. p. 57.
² Sikha, p. 8. Sittam pot rū kere nam, karavā nam dukulā vē. If (a monk) makes or causes to make paintings and figures of clay, he commits a dukkata offence.

Other crafts practised by monks were plastering thūpas (sudhā-kamma) [Sum VII. 581], brickmaking [VAP. 536] and making household articles such as mugs. [Smp. 306]. They also superintended repairs to monastic buildings and monasteries sometimes had a monk appointed to superintend repairs and to see to the appointment of carpenters and masons. Such a monk was known as a sanghabhāarakabhikkhu. [Vsm. 94].

CHAPTER IV

THE STŪPA

All aspects of the construction of the Stūpa in Ceylon have been discussed by Dr. Paranavitāna in his monograph on the Stūpa.¹ His study is based on observations made on the actual remains of Stūpas and also on literary evidence available to him. In this chapter the stūpa is discussed on the evidence of the Pāli Chronicles, the Commentaries, and Sinhalese literary works, and it has been possible to supplement Dr. Paranavitāna's study in certain respects. Some of the details, though found in Dr. Paranavitāna's monograph, are repeated here for completing the record.

The chief parts of a Stūpa are:

1. The Site
2. The Ledges
3. The Vāhalkada
4. The dome
5. The Superstructure

Before discussing the organic parts of a stūpa perhaps a few remarks may be offered on the purpose of constructing a stūpa. In pre-Buddhistic times, mounds or other shrines, (cetiya) were set over the mortal remains of great persons. The Pāli Canon refers to the construction of stūpas over the

¹ The Stūpa in Ceylon.

relics of Buddhas, Pacceka Buddhas, Arahats and universal monarchs. [Mahāparinibbāna-sutta, 5. 27] These shrines may have been just trees planted over the place where the relics were deposited. The relics were buried in one place and were not distributed in a number of shrines. But after the parinibbāna of the Buddha his relics were distributed among a number of persons and were distributed in different parts of India. When Buddhism spread throughout Greater India, the demand for his relics was very widespread, and it was to guard against possible theft of relics that the stūpa built by Ajātasattu was well guarded by a mechanism called the vyālasanghātaka Yanta consisting of a line of figures representing archers, [Sum.Vil. p. 613].

After the demise of the Buddha, Buddhists believed that they had only his relics to remind them of him and, as the Arahant Mahinda said to King Devānampiyatissa, when suggesting the construction of the Thūpārāma, "If we behold the relics we behold the Conqueror." (dhātūsu ditthesu dittho hoti jino)¹ The Buddhists, therefore, believed that when they looked at a cetiya they could cleanse their minds of all evil and experience the joy of seeing the Buddha in person, [Pap.III. 245], also [Sum.Vil.184]. Thus a stūpa containing bodily relics of the Buddha would be more important than a paribhoga cetiya - an object of worship consisting of an article used by the Buddha,

such as the Bodhi tree or the Alms Bowl Relic [Pap,IV,iii], for the mere sight of a cetiya - a stūpa with relics, gives the joy resulting from Buddhārammana, [Pap.I, 245]. It was because of the great importance attached to the stūpa that monks were given special permission to have a monastery if they had to go on a mission connected with the stūpa,[Sikhavi, 76].

Stūpas were built in Ceylon, not only over the relics of the Buddha, but also over the remains of important Buddhist monks. Stūpas were built over the cremated remains of both Mahinda,[Mv. 20,44] and of Therī Sanghamittā, [Mv. 20,53]. They were also built over the remains of monks who died in "the extinction of corruptions", [Vism. p.36]. But stūpas were not expected to be erected over the remains of puthujjana monks, i.e. monks who have not attained to arahatship. The Sumaṅgala Vilāsinī says that if stūpas were to be set up over the remains of such monks, there would be no room in Ceylon, [Sum.Vil. p.583-584].

The Site and Foundations

The earliest stūpa in Ceylon of the building of which we have a description is the Thūpārāma built by King Devānampiyatissa, the first King of Ceylon to accept Buddhism. The foundation of this stūpa was laid in a very rudimentary fashion in that lumps of clay collected from the Abhaya tank were

scattered over the chosen spot, till it rose up to the height of an elephant, [Mv.17. 35,36.] When the body of the stūpa had been built knee high, the King proclaimed that it was time to enshrine the relics, and later the stūpa was completed. The paucity of detail in this account reflects the long period that elapsed between the actual erection of the stūpa and the compiling of the Mahāvamsa, a period of over seven hundred years. It is also possible that those who constructed the Thūpārāma were inexperienced and the building was more in the nature of an experiment than a well planned project backed by longstanding tradition and training.

Mahāthūpa

The description of the construction of the Mahāthūpa as given in the Mv. is more detailed, [Mv. ch.29-31]. The foundation was dug up to a depth of seven hands [sattahattha] and layers of different materials were laid therein to strengthen the foundation on which the stūpa was to be built. The layers were as follows: (1) stone, (2) clay called butter clay [navanīta], (3) bricks, (4) a rough plaster [khara sudhā], (5) stones [kuruvinda], (6) a network of iron [ayo-jāla], (7) sweet scented marumba, which is a kind of gravel, (8) mountain crystal, (9) stones, (10) a sheet of copper eight inches thick, (11) a sheet of silver seven inches thick.

The veracity of this description is open to doubt in

several respects. It is true that the foundation of a colossal stūpa such as was begun by Dutthagāmanī must have been carefully planned and executed. The King's original plan for the stūpa was so colossal in proportions that some of the saner advisers of the King dissuaded him from undertaking such an ambitious task, [Mv. 29. 52,53]. It is quite possible that metals such as iron and copper were incorporated into the foundation to give strength, but it is hardly credible that there were sheets of copper and silver eight and seven inches thick in this foundation.

Also it is doubtful whether this description is true of the Mahāthūpa - or was drawn from current architectural practice by the author of the Mv.

When the body of the Mahāthūpa was begun, the three terraces sank nine times, and therefore altogether thirty terraces had to be built, for which the King is said to have spent ten kotis of bricks. The lower relic chamber, which was placed flush with the uppermost surface of the terrace, consisted of six slabs of a stone called medhavannapāsāna brought from the Uṭṭarakurus. It is probable that the stone was a kind of marble actually imported from India. In this relic chamber were placed the relics of the Buddha and various statues and sculptures executed in gold. In due course the relic chamber was closed and the stūpa completed up to the box-shaped tee (caturassaya). At this stage of the construction

King Dutthagāmaṇī died and his brother, Saddhātissa, who succeeded him, completed the rest of the stūpa, consisting of the parasol (*chatta*), the plaster work, (*sudhākarma*), and the elephant wall (*hatthipākāra*), the exact position of which is doubtful. [Mv. Trans. 2.228, footnote 2.]

Appurtenances

The foregoing account of the construction of the Mahāthūpa represents the construction of the chief features of a stūpa, but the Pāli Chronicles and the Commentaries provide a certain amount of information which throws some light on the development of the stūpa in Ceylon.

One of the features of a stūpa which has puzzled the students of the history of the stūpa, is the series of three terraces surrounding a stūpa at the base. In the Indian stūpas they are known as *medhi*, but the Mv. referring to Ceylon stūpas calls them *pupphādhāna*, [Mv. 30, 51]. In Sinhalese the three terraces together are called *tunmāl pesāva*. Dr. Paranavitāna says that in earlier and smaller stūpas of both India and Ceylon there was a low ledge round the stūpa to receive offerings of flowers and incense, and that the Sinhalese term S. *tunmāl pesāva* is a corruption of the form S. *tun māl pesāva* - the three flower terraces. He quotes an instance of this form from the Sinhalese work *Dharmapradīpikā*,¹ He further says that when the larger stūpas began to be erected the ledges

¹ Paranavitāna, *The Stūpa in Ceylon*, p. 16.

became too high and could not be used for the purpose for which they were originally intended, though the original name persisted in the form P. pupphādhāna and S. tunmalpiyavasāva.

As regards the terraces, Dr. Paṇḍita is certainly correct in suggesting that their function was to receive offerings, but his suggestion that this original function was lost when larger stūpas came to be built is untenable. The Papañcasūdanī and the Sammohavinodanī (N) refer to a thera who went to the Mahā-thūpa to offer flowers and who, finding that the upper terraces were full of flowers, was compelled to offer some of them at the lowest of the terraces, [Pap.III. 246 and Sam.Vin. 293].¹ In the slab Ins. of Queen Kālyānavati

¹ The passage in Pap. is corrupt. The passage in Sam.Vin. is as follows:

Thero pacchimamukhanissitena sopānena āruyha kūcchi-vedikābhūmiyam pupphapūjam kātum āraddho. Vedikābhūmi paripunnā. Pupphāni patitvā dutiyabhūmiyam jannuppamānena odhinā pūrayimsu. Tato otaritvā pādapiṭhikāpantim pūjesi. Sā pi paripūri. Paripunnabhāvaṃ ñatvā hetthimatale vikiranto agamāsi. Sabbacetiyaṅgaṇaṃ paripūri. Tasmim paripunne sāmanera, pupphāni na khīyanti ti āha. Parissāvaṇaṃ bhante adhomukhaṃ karoṭhā ti. Adhomukhaṃ katvā cālesi; tadā pupphāni khīnāni. Thero parissāvaṇaṃ sāmanerassa daṭṭvā saddhim hatthipākārena cetiyaṃ tikkhattum padakkhinaṃ katvā catūsu thānesu vanditvā parivenaṃ gacchanto cintesi.

[Note continued on next page, 55a]

"The thera began to offer flowers on the floor of the kucchivedikā (the terrace floor), after having climbed thereto by means of the flight of steps near the western frontispiece. The flowers filled the terrace floor and overflowed into the second floor up to the height of the knee. He descended therefrom (topmost terrace) and offered the flowers on the steps. That too was filled and knowing that it was full, he went away scattering them on the lowermost terrace.

Then the whole compound of the Cetiya was filled with flowers. Then when it was filled the thera said, "The flowers are not yet exhausted, Sāmanera." The latter said, "Turn the water strainer upside down, sir." The thera turned the water strainer upside down and shook it, and the flowers were exhausted. The thera gave the water strainer to the Sāmanera, circumambulated the Cetiya together with the "elephant wall" and having worshipped at the four spots and going away to the parivena began to reflect."

(1202-1208 A.D.) we are told that on the third piyavasāva (terrace) of the Mahāthūpa camphor was burnt in incense-burners placed at intervals of one cubit, [E.Z. iv. 259]. This shows that the original function of the terraces around the stūpa was not forgotten with the construction of the larger stūpas. What is, however, still obscure is the way the flowers were offered. In the present day flowers are usually offered at altar-like tables placed at the base of a stūpa at intervals, the devotee standing behind and facing the stūpa. If flowers were offered on the piyavasā, in ancient times, the devotee had to stand on the second terrace to offer flowers on the third, but the height of the third terrace as given by Smither does not permit such an attitude of worship.¹ Therefore, as the term Kucchivedikābhūmiyam suggests, it appears that the flowers were placed on the floor of the terrace around the body of the stūpa, the worshipper probably kneeling near the edge of the terrace.

The same passage quoted from the Papañcasūdani and the Sammohavinodani helps us to fix a lower limit to the period when the flights of steps connecting the terraces were constructed. Dr. Paranavitāna says ² that there is evidence to show that the flights of steps connecting three terraces were

¹ Smither, Architectural Remains of Anurādhapura, p.27.
1st terrace, 5'9"; 2nd, 4'9"; 3rd, 5'6".

² Stūpa in Ceylon, p. 19.

mostly of later date, but does not mention specifically when they were made. He also says further that originally the terraces were not meant to be used as paths for circumambulating the stūpa.

The passage clearly refers to the terraces, the flights of steps, and to the act of offering flowers at the terraces. As far as circumambulation is concerned, we are told that the Thera circumambulated the stūpa by going round the Elephant Wall P. *hatthi-pākāra* - a course of action which was necessary because both the terraces and the stūpa compound were full of flowers. Otherwise the Thera would probably have walked around the stūpa along the terraces.

But it is difficult to assign a date to this passage. The *atthakathās* were compiled and translated into Pāli by Buddhaghosa in the fifth century A.D. But it has been shown by Adikāram¹ that though this compilation took place in the fifth century - the actual materials of the *atthakathās*, with the exception of modifications and revisions made later, cannot be referred to a date later than the first century A.D. Thus it is possible that the flights of steps were already in existence when the material of the *atthakathās* was completed. Furthermore, as the three terraces were constructed by Dutthagāmaṇi himself, it is inconceivable that these flights of steps should not have been constructed then, for without

¹ Early History of Buddhism in Ceylon, p. 87.

them the terraces could not be reached by devotees who wished to offer flowers on them.

Some of the terms used in connection with the terraces and railings of a stūpa have remained obscure. The Pāli terms in question are:- pādavedi, muddhavedi, [Mv. 35. 2]; vedikā [Mv. 34.39]; kucchivedikā, [Pap.III.246 and Vap.629] and muddhavedikā, [Vap.629].

Dr. Paranavitāna has attempted to explain that the term vedi or vedikā means a railing and that muddhavedi meant the railing forming the square tee below the superstructure of a stūpa and that kucchivedi meant a similar railing placed around the lower terraces around the base of a stūpa.¹

The term pādavedi, in his view, indicated a third railing enclosing a stūpa and running right round the the site of the stūpa.²

The Pāli term vedi or vedikā means not only a railing, but it means also a ledge.³ But in the Mahāvamsa it is used

¹ Paranavitāna, The Stūpa in Ceylon, p. 31-33.

² Ibid, p. 63.

³ According to the Tibetan *Dulvā* four ban rim had to be constructed at the base of a stūpa. These ban rim are called medhi in the *Dīvyāvadāna*. It is quite clear that what is meant by terms ban rim and medhi is what is called pupphādhāna or kucchivedi in Pāli. Neither of these two works mentions any railings that should be constructed on the ledges, [Sylvain Levi Stanpikam, Harvard Journal of Asiatic Studies, Vol.II, p.279].

The stūpas in N.W. India are provided with terraces [K. de B Codrington, Ancient India, p. 52], but there is no evidence to show whether there were railings on these terraces.

more in the sense of a platform or ledge, as is seen in the couplet,

Vihāre abhaye tissavasabhā bodhipādape
silāvediñca kāresi pākārañca manoramam.

(Mv. 37.91)

In these lines it is clear that what is meant by the term vedi is the ledge of stone and plaster that is constructed round a Bodhi tree and that the term pākāra is used to indicate the railing that is set up over the ledge and around the tree.

Furthermore the passage quoted above from the Sammoha-vinodanī uses the term kucchivedikābhūmiyam to mean the floor of the ledge at the base.

In support of his statement that kucchivedi was a railing on the ledges round the stūpa and not the ledge itself Dr. Paranavitāna refers to the figures of elephants placed at intervals on the edge of the topmost of the three terraces of the Mahāthūpa, and points out that the holes on the heads of the elephants were intended to receive posts for the railing. But it is difficult to see how these holes could have received and held in position vertical posts of a railing - for Smither who noticed them says that though at first sight they appeared to have been intended to hold flowers, they could not be so used on account of the position of the holes which were generally placed on the sides of the heads.¹ Smither therefore suggests

¹ Smither, Architectural Remains of Anurādhapura, p.27.

that the holes were probably intended to hold precious stones or small offerings.

The grooves made between the legs of the elephants, Smither has pointed out, [Ibid, p.27] were intended to receive posts which would have divided the terrace surface into compartments. Thus it is clear that the term P. kucchivedi did not mean a railing, but indicated merely the terraces at the base of the stūpa. As these terraces cover the body P. kucchi or the dome of a stūpa, they were called kucchivedi.

The term pādavedi, which Dr. Paranavitāna takes to mean a railing round the site of a stūpa, seems to be used as a synonym for the term kucchivedi or kucchivedikā. These two latter terms do not occur in the Mahāvamsa, though they occur in the Commentary to the Mahāvamsa, [Vap.584] and in the Pāli Commentaries. When the Mv. refers to the work of King Bhātikābhaya it says that he constructed two vedikā, P. vedikādve [Mv. 34.39] which the Commentary explains as kucchivedikā and muddhavedikā, [Vap.629]. Referring to the work of King Āmādagāmanī the Commentary says that he built a pādavedi and a muddhavedi at the Mahāthūpa.

It is here quite probable that what King Āmādagāmanī reconstructed was the same two sets of terraces as were constructed by King Bhātikābhaya. It is also significant that neither the Mahāvamsa nor the Commentaries mention the three terms pādavedi, kucchivedi and muddhavedi, on one and the same

occasion, probably because the three terms did not mean three different things, but only two.

Confirmation that the term P. *kucchivedi* is synonymous with the P. *pādavedi* is found in the *Thūpavamsa*, a Sinhalese work of the thirteenth century, which refers to the threefold terrace at the base of the *Mahāthūpa* by the term S. *tun pā piyavasā* [Thūpa. 170] where *tun* P.ti, three; *pā* P.pāda, base, and *piyavasā* = *vedi*. The term *pā-piyavasā*, therefore, is an exact equivalent of the P. *pādavedi*.

The term S. *tun* makes it quite clear that the term refers to the series of three ledges around the *stūpa* at the base.

One of the most prominent and arresting features of some of the ancient *stūpas* in Ceylon is the architectural projection placed at each of the four cardinal points around a *stūpa*. In modern Sinhalese these structures are called *Vāhalkada* and in the Pāli Chronicles they are known as *ādimukha*, [Mv.35.119] A full discussion of this feature is given in Ch.IV of *The Stūpa in Ceylon* by S. Paranavitāna, and it is not proposed to discuss this feature again here, except to add the meagre information met with in literary works regarding this subject. The Pāli Commentaries refer to these *Vāhalkada* and call them simply by the name *mukha*, but each of the four *mukha* is qualified by the name of the direction in which it was placed, as *pacchimamukha* etc. [Pap.III,246; Sam Vin, p.293].

As the growth of the Commentaries has been shown to have stopped after the middle of the first century A.D.¹ the Vāhalkadas of the Mahāthūpa must have been built before that date. Dr. Paranavitāna on archaeological evidence believes that they were erected later than the 1st century B.C. [Paranavitāna, opp. cit, p. 57]. It may be argued that the Pap. and Sam Vin were translated into Pāli in the fifth century A.D. and therefore that these two passages were incorporated in the two works during the period from the middle of the first century up to the fifth century A.D. Therefore, at any rate, the Vāhalkadas of the Mahāthūpa must have been constructed at any time during the period ranging from the first century A.D. to the fifth century A.D.

These references in the Commentaries confirm the identification of the term ādimukha with the vāhalkada, for the term used in the Commentaries is 'mukha' preceded by the name of the direction in which the structure is situated. In the Samantapāsādikā [Smp.614) occurs the term 'āyamukha', which seems to indicate some structure facing the entrance to a city. Here Rājagaha and Sāvattthi are said to be āyamukha of the two countries Andha and Magadha. Āya in Pāli means coming in, entrance, [P.T.S. Dictionary] and it is probable that the āyamukha was used here metaphorically because the two cities mentioned were

¹ Adikāram, Early History of Buddhism in Ceylon, p. 87.

believed to have been a gateway to these two countries. In the stūpas in Ceylon the vāhalkadaś face the four gates at the four cardinal points. Thus the term mukha, ādimukha and ayamukha would seem to point to one thing, namely the vāhalkadaś.

There is one more term which occurs in the commentaries, and which probably refers to the vāhalkadaś, namely the term āsanaghara. Discussing the degrees of discrimination that should be exercised when a Bodhi tree obstructs a shrine, the Manorathapūranī says that the branch of a Bodhi tree that obstructs an āsanaghara containing relics should be cut off, [Man. II, 7]. This passage and others, mention several contingencies, such as the obstruction of a stūpa or a Buddha statue containing relics and other objects, by a Bodhi tree. By a process of elimination, it would appear that the word āsanaghara can be identified with the mukha or ādimukha of a stūpa. This identification is further supported by the discovery of relic caskets bearing inscriptions stating that they contained relics, at the further Vāhalkadaś of the Abhayagiri stūpa.¹

Structurally the most important part of a stupa is the dome and the construction of its details have been studied from actual remains of stūpas.² But in no stūpa still existing

¹Paranavitāna, Stūpa in Ceylon, p. 53.

²Paranavitana, op. cit. p. 12.

today, either wholly or in part, can one get an idea of the external ornamentation of a stūpa of the Anuradhapura period, owing to such details being completely destroyed or repaired out of recognition. Therefore the only source of information on these aspects of the stūpa is the literature of the period.

The dome was constructed of brick and earth with an outer shell of brick. Externally the whole structure was given a coating of white plaster, [Mv. 34.58; 45-62]. For bonding bricks clay and manosiḷā, red lead was used, [Mv.43]. Actually Mv. says that a coating of manosiḷā eight inches in thickness was used; but it is probably an exaggeration. But the use of haritāḷa, (yellow orpiment) and manosiḷā (red arsenic) is referred to in the Pāli commentaries. These substances were contributed by people as their share of the materials necessary to construct a stūpa,¹ and it is quite probable that these two substances were used as a colouring material added on to clay and lime. It is interesting to note that red ochreous earth has been found used in the plaster work of the stūpas in North West India.²

As regards the external ornamentation of early stūpas valuable information is found both in the MV. [34.74] and in the Vamsatthappakāsinī, [p.630], particularly the latter,

¹Papañcasūdanī [also Sum.Vil.580] II, 123.

²Masson, Topes and Sepulchral Monuments of Afghanistan in A Descriptive Account of the Antiquities and Coins of Afghanistan, p. 56.

which give a detailed description of the decorative work done by King Bhātikābhaya and King Mahādāthika Mahānāga at the Mahāthūpa. According to those accounts the dome of the Mahāthūpa was covered with a net work of pearls (muttolamba) and corals (pavālacchikajāla) which were held together at places with lotus like bosses as big as cart wheels. These decorative features are similar to those on the sculptured stupas found at Amāravatī and it is possible that stūpas both in India and in Ceylon were decorated in the same fashion during this period. Dr. Paranavitāna has pointed out that the early stūpas in Ceylon were in several respects similar in construction to those at Sānchi.¹ When a stūpa had to be enlarged, often an outer shell of brick or stone was made over the stūpa and as such a structure was intended to cover the dome of the stūpa, it was called a mantle cetiya, (Kancukā cetiya), [Mv.33.23; 41.42]. Sometimes mantle cetiyas of a temporary nature were made of silk, (p.patṭa), woollen material interwoven with gold (P.ratana-kambala), and fresh cloth, (P.ahata vattha), [Mv.52.67; 34.74; 44.44]. These coverings were made more as a form of offering to the stūpa than as a means of enlarging or strengthening it. More expensive materials - such as gold were also used in making these coverings. For instance Udaya II 952-955 A.D. provided the Thūpārāma with gold plates (Mv.51.128] and Mahinda IV, 975-991 A.D. gilded the stūpa called SIVIDAGĀBA, [E.Z.1.227].

¹Stūpa in Ceylon, p. 31.

Mahinda II (787-807 A.D.) covered the stūpa at Thūpārāma with alternating bands of gold and silver, (rajatapattam antarantaram), [Mv. 48.40]. The Thūpārāma as we know it today is one of the smaller stūpas and it must have been still smaller in the past, as it has been enlarged a number of times.¹

The stūpa called the Sividāgāba has not been identified but presumably it too was one of the smaller stūpas. Thus the cost of covering these small stūpas with sheets of gold could not have been so great as would be the case if a colossal stūpa like the Mahāthūpa had to be similarly covered. It is interesting to note that the Swe Dagon Stūpa at Rangoon has been covered with gold sheets.

The Slab Inscription of Queen Kalyānavatī records that the dome of the Mahāthūpa was decorated by her treasurer with the figures of the sixteen auspicious objects, the figures being drawn with flour made from five yālas of rice [E.Z.IV.258]

The early stūpas in Ceylon, it was pointed out earlier resembled the stūpa at Sānchi. As in this stūpa - the early stūpas were provided with a square tee and a parasol, chatta, though in later stūpas the chatta was replaced by the spire which is surmounted usually by a small stūpa in metal, usually copper plated with gold, topped by a precious stone, cūlāmani.

¹Paranavitana, op. cit., p. 76.

The square tee in which the chatta was set up was decorated usually with the figures of the sun and moon, which were sometimes set with precious gems. King Saṅghatissa, (248-252 A.D.) for example is said to have used gems each worth 100,000 gold pieces to adorn these figures on the Mahāthūpa, [Mv. 36. 65,66].

The chatta was made of some metal such as copper (loha) [Mv.31.85] and was gilded [Mv. 42.57]. Though gold chattas are also mentioned in the Pāli Chronicles, what probably was meant was a gold plated chatta [Mv. 42.57]. In addition they were adorned with precious gems, [Ibid 44.133].

Sometimes stūpas were provided with more than one chatta, probably placed one above the other. This practice of setting up several chattas on a stūpa may have originated as a result of the desire of generous and devout rulers who wished to make some contribution towards a well-known stūpa such as the Mahā thūpa. King Aṁanda-gāmaṇi (21-30 A.D.) offered a second chatta to the Mahāthūpa [Mv.35.2] and King Aggabodhi (564-598 A.D.) offered to the three chief stūpas chattas consisting of seven, eight and nine tiers [ditto. 42.31].

From this series of chattas - or chattāvalī as it is called developed the Kotkāraḷla, which is a conical spire that was set up on the square tee of later stūpas. Its development is fully discussed by Dr. Paranavitāna in his The Stūpa in Ceylon (pp. 39-42).

The first mention of the cūlāmani of a stūpa occurs in the 7th Century A.D., when we are told that Kassapa II (652-661 A.D.) made three cūlāmani for the three chief stūpas at Anurādhapura, [Mv. 45.5].

The culāmani or crest-jewel was placed on the top of the chattāvalī. Therefore it is to be presumed that the chattavalī or the conical spire of a stūpa came to be constructed as early as the 7th Century A.D.

CHAPTER V

PAINTING IN ANCIENT CEYLON

It has been customary among those who have written on the history of Ceylon to attribute the introduction of fine arts to the Buddhist missionaries who are believed to have arrived in Ceylon for the first time in the reign of King Devānampiyatissa.¹ But in view of the great antiquity of the art of painting it is not altogether impossible that there was in Ceylon a form of art, however primitive, practised by the original inhabitants of Ceylon. It was a common practice among prehistoric peoples to make paintings and sculptures in the caves where they dwelt and as a number of caves where neolithic people are believed to have dwelt have been discovered in several parts of Ceylon,² it is probable that some of these cave dwellings may have contained paintings done by their prehistoric occupants. At Tanūrimalai some paintings have been discovered in Caves,³ and it is believed that they may have been the work of the prehistoric inhabitants of Ceylon, though some scholars are inclined to believe that they are more probably the work of the present-day Vāddas who are considered to

¹G.C.Mendis, Early History of Ceylon, p.15.

²J.R.A.S.(C.B) XXXIV, 354 - 361.

³J.R.A.S. CB. Vol. XXII, p. 84.

be the aboriginal people of the island.

When Buddhism was introduced to Ceylon, monks found it necessary to retire to places of seclusion for purposes of meditation and they found these caves which had provided shelter to the prehistoric people, to be ideally suited for their dwelling. With their greater experience and knowledge the monks were able to make these rock shelters more comfortable, by providing them with a small wall, windows and doors to keep away rain and to provide for ventilation. But the prehistoric people probably protected themselves from winds and rain by a screen of leaves. The monks on the other hand carried on the prehistoric practice of painting the rock walls.

Where monks searched for a cave suitable for meditation, they would, on finding one, themselves begin to effect the necessary constructional work to make it suitable for living or secure the help of lay patrons to do this work for them. Often such caves were donated to monks by devotees of their own accord. If paintings were to be made on the rock walls, they were first covered with a coating of plaster and the paint applied on it later, [Sam Vin. 331]. References to caves with paintings are not seldom found in the Pāli commentaries and one gathers that some of these paintings were done on a large scale. The Visudhimagga refers to a cave called the Murandaka lena in which was illustrated the renunciation of seven Buddhas [Vsm. 38]. Sūkara-khata-lena

in which the Buddha himself is said to have spent some days had pictures painted on its walls, [Pap. III. 203]. Traces of paintings are still to be seen on the walls of caves in Ceylon. Vincent Smith refers to a cave at a place called Pulligoda in the Tamankaduwa District in Ceylon, which has a number of paintings on its wall surfaces, one of them being a painting containing five men.¹

It appears that paintings were a common feature in the houses of monks, however unpretentious they may have been in other ways. Even if the pāsāda of the monk had only a thatched roof, the resident monk was permitted to seek the assistance of a painter, among others, to get his dwelling painted and otherwise made suitable as a residence [Smp. 563]. Painting, P. Cittakamma, was also regarded as one of the three chief aspects of the construction of an āvasathāgāra, the other two being Katthakamma, woodwork, and Sudhākamma, plasterwork [Pad. 408].

The practice of presenting caves to Buddhist monks was very common, in the early period of Buddhism in Ceylon, i.e. up to about the 3rd Century A.D. as is shown by the large number of such caves and inscriptions discovered in different parts of Ceylon. These caves have been found mostly in different parts of the North Central, North Western, Central and Southern provinces of Ceylon² and

¹A History of Fine Art in India and Ceylon, p1 112.

²U.C.R.VII, 142. Epigraphical Map of Ceylon, 3rd B.C. to 3rd A.C.

some of the most famous caves are found at Mihintale, Vessagiriya, Dambulla and Situlpavva and Kataragama in the Southern province. These caves were well suited to monks who desired to devote most of their time to meditation and other ascetic practices and Devānampiyatissa himself is reported to have prepared some caves for the use of the Arahant Mahinda and his followers at Mihintale [Mv.XVI, 12, 13]. But by about the beginning of the Christian era the ascetic life of the monks was gradually being undermined and the simplicity of life of the monks too was being replaced by a life of greater comfort and luxury. In explaining this decline Adikāram says that at this time the power of the Sinhalese Kings who were always the greatest benefactors of the Sāsana was weakening, adding that this decline was also possibly due to the entry into the order of monks of people who, however intelligent and learned they might have been, were seekers after comfort and worldly pleasure.¹ This decline, however, can partly be explained as being due to the period of prosperity that Ceylon entered towards the beginning of the Christian era. Trade between Ceylon and other countries such as distant Rome seems to have commenced about this time and continued until the decline of the Roman empire. Evidence confirming this commercial activity has been found, in the form of Roman coins, in

¹Adikāram. Early History of Buddhism in Ceylon, p. 77.

every port that was active in ancient times.¹

As a result of this trade, the wealth of the country increased and patrons of Buddhism became more generous. As we have already seen, frequent grants of land and taxes from tanks were dedicated to the Saṅgha. We see also a continuous and sustained programme of constructional works - not only for the material benefit of the people but also for their spiritual benefit. Thus caves now cease to interest monks and their place is taken by large monasteries.

During this latter phase, i.e. from about the 3rd Century till the end of the Anurādhapura period - painting became very common. In most cases pictures must have been executed on the surface of walls in image houses, as is the practice obtaining in Ceylon even today. There would probably be a central group of images of the Buddha in the round and to provide a kind of background to these central images the walls were painted with incidents from the life of Prince Siddhārtha or from his previous births as a Bodhisattva, [Mv. 27.37; 30.65; 32.4]. No actual remains have yet been discovered of such an image house at Anurādhapura, but the Lankātilaka Vihāra and the Northern Temple at Polonnaruwa are good examples of this type of image house.²

¹H.S.Jones, Companion to Roman History, p. 31-8.
also Fah-Hien, p. 149.

²Memoirs of the A.S.C. Vol.II, 13, 17.

Pictures were also painted on the walls of shrines known as dhātughara i.e. the structure that enclosed a stūpa. Such a structure enclosed some of the early Thūpas and examples of a later date are still to be seen in Ceylon.

The Mahāvamsa refers to the paintings that were executed on the walls of the shelter that enclosed the Thūpārāma, [Mv. 42, 56]. Paintings were also executed on the walls of structures associated with the three cetiyas, i.e. the Mahā thūpa, the Abhayagiri and the Jetavana, and King Mahānāga repaired them, [Mv. 41.95]. It is not possible, however, to ascertain in what parts of these thūpas the paintings were executed. They could not have been executed on the walls of a dhātughara, because these three colossal thūpas were not provided with such structures.

Presumably themes from Buddhist lore were predominant among the subjects that were used by ancient sinhalese painters. As in the case of Sinhalese literature, the Jatakas formed an inexhaustible source of subjects for illustration. Among the subjects that monks could cause to be painted without violating the rules of Vinaya were the stories from the Jātakas and the Dhammapadatṭhakathā and of course the figure of the Buddha, [Sikhavi, p. 78]. Fah-hien too refers to the representations of the 500 Jātakas that were used in ancient Ceylon on the occasion of the Festival of the Holy Tooth.¹ Among those that

¹The Travels of Fah-Hien and Sung-Yun, translated by S.Beal, p. 157.

were well known at the time were the Vessantara, the Kalandaka, the Chaddanta and the Miga Jātakas. A picture representing an iguana blowing on a fire is referred to in the Sumaṅgala Vil-āsinī, as causing a dispute in a Vihāra [p. 94]. Though Buddhism theoretically frowns upon any kind of art that would rouse the senses, there were in Buddhist Vihāras paintings of women executed in a sensuous manner. The Sumaṅgala Vilāsinī refers to a group of men and women, well dressed and well adorned going to a festival at a Cetiya, as being like figures in a cittakamma. This reference reminds us at once of the well-known paintings at Sigirya, which have been believed to represent a "procession of noble ladies carrying flowers, attended by female servants, all moving in the direction of the Pidurangala Buddhist temple to the north of the hill, as if about to make offerings at that shrine."¹ Such beautifully executed female figures at times proved too tempting and the Samantapāsādikā refers to a monk who actually fell in love with the figure of a woman painted on a wall [p. 546].

Materials, Colours and Processes.

Besides walls of buildings, paintings were done on boards, (phalaka) on canvas, (dussa) and on silk, (pata), [Sap. I.114]. In what manner or for what specific purpose paintings on these materials were used cannot be ascertained

¹Vincent A. Smith, p.111.

for want of evidence. Perhaps they were used on special occasions, such as the festival of the Tooth Relic because of the lightness and portability of these materials.

Figures of the Buddha done on cloth seems to have been common - for the *Sikhavalaṇḍavinisa* lays it down as an offence if a monk were to refer to other monks in fun as "cloth Buddhas", [p. 78].

There is very little information available in the Pāli *aṭṭhakathās* and the Sinhalese literature about the pigments and tools used by painters in ancient Ceylon. According to a statement in the *Papañcasūdanī*¹ a "brush" P. *tūlikā* and four pigments were the stock-in-trade of an artist. What these four pigments were is not mentioned. However, it is interesting to note that only four colours have been used in the paintings at Sīgiriya, namely, yellow, red, green and less frequently black. Only the colours red, yellow and green are used in the wall paintings at Demalamahāsāya, Polonnaruwa.² They cannot be referred to a date earlier than the 12th century. It is not possible to ascertain whether red, yellow, green and black were the four pigments referred to by the term P. *cattāro raṅga-jātā* in the passage in the *Papañcasūdanī*.

¹Pap. II. 101. *tūlikāpañcame raṅge gahetvā āgatapuriso viya Yathā so tūlikāpañcamehi raṅgehi ākāse rūpapātubhāvam kātum na sakkoti.*

²Report of A.S.C. 1909, p.15.

The brush P. tūlikā, it would appear, was made of a tuft of cotton P. tūla - attached to the end of a piece of stick.

Among the common colouring materials, were red arsenic, P. manositā, [Mv. 15.80], yellow orpiment, P. haritāla, S. hiriya [Mv.34.52] and vermillion, P. hīnguli, [Mv. 27.18] S. hīngula.

It would appear that these substances were used as a crayon and also dissolved in some liquid.¹ For instance, we are told that when the therī Sanghamittā was severing a branch of the Bodhi tree at Buddhagaya, she did so by making a line round the particular branch with manosilā, [Mv. 15.80]. There is no reference to a brush. It is of course possible that it was used in a liquid form with a brush. We are also told that the theras who went to the Tāvatisa heaven to fetch a plan for the Lohamahāpāsāda, made a sketch of a divine place on a cloth with vermillion, P. hīnguli, [Mv. 27. 18,19].

That colouring materials in the form of a crayon were used is shown by a passage in the 12th Century Sinhalese poem Sasadāvata, where the author says that he will first give an outline of the theme of the poem, just as a

¹Haritāla and hīngula are still used in Ceylon today as pigments, [J.R.A.S. C.B. Vol. XIX, p. 19.].

painter would first make an outline with a crayon¹, S. Vāṭisana, Sk. Vartikā-saṃjñā.

Lac P. lākhā and a substance called kankuṭṭhaka were also used as pigments. They were, we are told, used in painting a likeness of the proposed Mahāthūpa before it was completed, so that Duṭṭhagāmaṇi could have a view of the stūpa as it would appear when completed, [Mv. 3¹.6].

Dyes obtained from common vegetables also seem to have been used in ancient Ceylon. For yellow - turmeric P. haliddī was used, but in the language of an artist any yellow colour P. yam kiñci pītaka-vannam - was called haliddī. Blue and green, ^{both} of which colours are called nīla in Pāli - were obtained from minerals, such as compounds of copper, kamsa-nīla and vegetable dyes, P. palāsa-nīla, [Pap. II, 101] respectively.

¹ Sasadāvata, Stanza No. 17.

me dābaṇḍa alev - paṭa vāṭisanev dakvā visitura
raṅgatavaramen-pili mehi vitara pānem.

Having first indicated the plot of the Jātaka story like a crayon sketch on a drawing cloth (alev paṭa SR. ālekhyā-paṭṭa), I shall then give the details which are like the detailed paint work (in a painting).

The Sinhalese word Vāṭi [SK. Vartikā] means a wick of a lamp and in the context above it may mean a lump of cotton or a piece of rag with which the pigment is applied onto the cloth. But Ananda Coomaraswamy has shown that SK. Vartikā = Varti = Kitta-varti = kitta-lekhanī and that it means a crayon which has to be distinguished from a brush SK. tūlikā, [Ananda K. Coomaraswamy, The Technique and Theory of Indian Painting, in Technical Studies in the Field of the Fine Arts, p. 70].

CHAPTER VI

SCULPTURE IN ANCIENT CEYLON

The earliest sculptures found in India go back to the period of the Indus Valley Civilization. After its disappearance there was an interval of about one thousand years before we see actual examples of the sculptor's art again in India. These belong to the period of the Mauryas and consist of a few pieces such as animal figures set up on stone columns and statues of Yakṣas and Yakṣinis, [Stella Kramrisch, Indian Sculpture, p.9] .

In Ceylon examples of such early sculpture have not been found, though examples of stone implements used by the prehistoric inhabitants of the island have been brought to light on several occasions, [J.R.A.S., C.B. XXXIV, p.36] .

Since the prehistoric inhabitants could not produce anything that could be called sculpture, this art even in an elementary form, must have been introduced to the island by the immigrants from India who are said to have arrived in the country in about the 5th Century B.C.

Among these early immigrants from the Northern parts of India were artisans who practised various arts and crafts. Three centuries later when the Buddhist monks arrived in Ceylon, the various arts, which probably were yet in a rudimentary state, must have received a new impetus.

The Buddhist monks led by the Arahant Mahinda arrived in Ceylon in the year 236 B.C., probably when the original sections of the great Stūpas Bhārḥūt and Sānchi were being built. It is also said that the Arahant Mahinda, contemplated his visit to Ceylon, while staying at the Vedisagiri-vihāra, Smp.70 which was the same as modern Sānchi.

Besides, when a branch of the Bodhi tree at Buddhagayā was brought to Ceylon by the Therī Saṅghamittā, we are told that various craftsmen accompanied it so that they could attend to the ritual needs of this object of worship. Among them were weavers and potters and representatives from all the craftsmen, [Mv.19.3].

Though sculptors are not specifically mentioned among these craftsmen, it can be presumed that some craftsmen who were at least aware of the sculptural work that was being undertaken at shrines such as Bhārḥūt and Sānchi visited Ceylon at this time and continued to do so thereafter.

Though sculpture on a large scale was undertaken at these shrines, no attempt was made to make images of the Buddha as objects of worship, and in these sculptures the presence of the Buddha was indicated by a symbol such as the foot print, the umbrella or a column of fire, [Stella Kram-risch, Indian Sculpture, p.25,26]. Sculptures of the figure of the Buddha were not made till about the first Century B.C., [Cunningham, The Stupa of Bharhūt, p.107].

The earliest preserved image of the Buddha is of the

Mathurā School dated as late as the end of the first Century A.D., though images of the Buddha of an earlier date but of the Gandhāra School have also been found, [Stella Kramrisch, op.cit. p.39,40].

A.K.Coomaraswamy^{s m} is "inclined to presume on general grounds a priority for Mathurā and says that the evidence is not sufficiently precise to warrant us in forming a theory as to priority of either school, [The Art Bulletin, Vol.IX, p.323 No.4, (June 1927)] - and generally believes that "the only possible conclusion is that the Buddha figure must have been produced simultaneously probably in the middle or near the beginning of the first Century A.D. in Gandhāra and in Mathurā in response to a demand created by the internal development of Buddhism which was common ground in both areas, in each case by local craftsmen, working in the local tradition." [Coomaraswamy, History of Indian and Indonesian Art, p.60]

In Ceylon too, it may be presumed that there was no attempt to make images of the Buddha, in the early stages of Buddhism. The Pāli Atthakathās refer only once specifically to the image of the Buddha, [Khuddakattakathā, p.222] though mention is made more than once of an image containing the relics of the Buddha, [Man. and Pap.IV.III]

Among the duties whose observance is enjoined upon monks are those connected with the different features of a vihāra,

such as the compound of the Stūpa, P.Cetiyaṅgaṇa, the place where water is kept for drinking, P.Pāṇīyamālaka, [Sam Vin.349] but there is no mention of any services that monks were required to perform in connection with the image-house, which, being a very important feature of a monastery then, is often referred to in inscriptions of a later date. This absence of any reference to image-houses and services that had to be rendered by monks in their Connections, probably points to the fact that when the material of the Pāli Commentaries was being accumulated, i.e. not later than the first Century A.D., there were no image houses built in monasteries or at least that by this time they had not become so important a feature of a monastery as to be specially cared for by monks.

The earliest reference to the Buddha image in the Mahāvamsa is in connection with the construction of the relic chamber of the Mahāthūpa by King Dutthagāmaṇī (101 - 77 B.C.) It is said here [Mv.30.72] that the king caused to be made a Bodhi tree of gold with an image of the Buddha underneath it, to represent the enlightenment of the Buddha. It is not possible to ascertain the veracity of this statement, as no examination has so far been made of the relic chamber of this Stūpa. Nor have Buddha-images that can be referred to such an early date been found in Ceylon. It is possible that the Mv. in describing the relic chamber of the Mahāthūpa as containing images of the Buddha was actually attributing to

the first Century B.C. a practice that was current in the sixth Century A.D. when the chronicle was compiled. But there is no substantial reason to discredit this account of the Mahāvamsa, for it is quite possible that by this time the practice of making images of the Buddha had been introduced to Ceylon from India. In fact on the occasion of the laying of the foundation stone of the Mahāthūpa theras from the following regions of India attended the ceremony: Rājagaha, Isipatana, Jetavana, Vesālī, Kosambī, Vṛjjenī, Pāṭaliputra, Kasmīra, Pallavabhogga, (Persia ?), Alasandā (probably near Kābul), the Vindhya forest, Buddhagāyā, Vanavāsa and Kelāsavihāra.

Thus though the art of sculpture may have been practised by the people of ancient Ceylon at least since the introduction of Buddhism to Ceylon in the 3rd century B.C., the making of Buddha-images for purposes of worship was not attempted at least till the first century B.C. probably later as will be shown below.

Themes of sculpture in ancient Ceylon can conveniently be divided into the following classes:-

- (1) The Buddha and persons associated with him.
- (2) Bodhisattvas.
- (3) Deities.
- (4) Portraits of living persons.
- (5) Objects and animals.

(1) The Buddha and Persons associated with him.

It has already been stated that the earliest reference to an image of the Buddha in the Mahāvamsa occurs in connection with the construction of the relic chamber of the Mahāthūpa. The list of figures and incidents sculptured out of precious material such as gold is quite impressive and contains about forty different themes, several of which are still popular with painters of the present day.

The list compiled from the Mahāvamsa ch.30 is as follows :-

Sculptures in the Relic Chamber of Mahāthūpa.

1. Bodhi tree, with gold Buddha image - with Brahmā, Sakra
etc.
2. The Seven Weeks.
3. The Prayer of Brahmā.
4. The setting in motion the wheel of the Doctrine.
5. Admission Yasa into the order.
6. The Pabbajjā of Bhaddavaggiya monks.
7. Subduing of the Jāṭilas.
8. The Visit of Bimbisāra.
9. The entry into Rājagaha.
10. The Accepting of Veluvana.
11. The eighty disciples.
12. The Journey to Kapilavatthu.
13. Miracle of the Jewelled Path.

14. The Pabbajjā of Rāhula and Nanda.
15. The accepting of Jetavana.
16. The miracle at the foot of the Mango tree.
17. The Preaching in the heaven of gods.
18. The Miracle of the descent of the gods.
19. The assembly with the questioning of the Thera.
20. The Mahasamayasuttanta.
21. The exhortation to Rāhula.
22. The Mahāmangalasuttā.
23. The Encounter with the elephant Dhanapāla.
24. The Subduing of the Yakkha Ālavaka.
25. The Subduing of Aṅgulimāla.
26. The Subduing of Apalāla.
27. The meeting with the Pārāyanakas.
28. The giving up of life.
29. The accepting of the Gift of Pork.
30. The accepting of the Two Coloured Garment.
31. The drinking of pure water.
32. The Parinibbāna.
33. The lamentation of Gods and men.
34. The severing of the feet of Kassapa.
35. The Cremation.
36. The quenching of the fire.
37. The funeral rites and distribution of relics by Dona.
38. Jātakas which are fitted to awaken faith specially Vessantara in full.
39. Gods, brahmas, guardian deities etc, etc.

The Sumaṅgala-vilāsinī gives a description of the cetiya built by Aśātasattu over the relics of the Buddha given to him by Mahākassapa and mentions the following subjects as being sculptured in gold inside the house enclosing the shrine, P.Cetiyaghara [sum Vil.612] :

1. 550 Jātakas (addhachattāni Jātakasatāni).
2. 80 mahātheras.
3. King Suddhodana.
4. Queen Mahāmāyā.
5. The seven persons born on the same day as Prince Siddhattha (sattasahajāte).

Probably these two lists are not free from exaggeration, but they indicate the type of sculptured objects that were deposited in relic chambers of stūpas constructed at the time that these works were compiled - i.e. during the period from the first century B.C., when the material of most Commentaries were completed, [Adikāram, E.H.B. C., 87] up to the fifth century A.D. when the Mahāvamsa was compiled.

It is noteworthy that several of the subjects sculptured in the relic chamber of the Mahāthūpa are found sculptured in the stūpas at Bhārḥūt, Sānchi and Amarāvati, as is shown in the appendix to this chapter. Some of these themes are also illustrated at Ajantā.

The Buddha-image placed in the relic chamber of the Mahāthūpa was of the seated type. The description of this

is further elaborated in the Mahāvamsa commentary which says that the nails and the white parts of the eye were set with a kind of crystal, P.Jātīphalika; the soles, palms and lips were of coral; the two eye brows, the manibandha, the hair and the eye-balls were of sapphire, P.īṇḍanīla; the forty teeth of P.vajra and the unṇaloma of silver, [vap.544]. It is obvious here that the commentator is not sure of his facts, for though various kinds of precious stones were used in the making of statues, Buddha-statues are not known to have been made with teeth showing.

The main features of a Buddha image were as follows:-

1. Pedestal, pīṭha, [Mv.51-23] or seat, pallaṅka, [Mv.42.57].
2. Crest jewel, cūḷāmaṇi, [Mv.48,137].
3. Eyes, which were often set with some precious stone. Mahinda IV set the eyes of a large stone image of the Buddha with rubies, [E.Z. 1. 227]. The Rambāva Slab Inscription mentions another important stone image of the Buddha of which the eyes were set with sapphires of the first water, S.kula dāti iṇḍunilmini ruvanin, [E.Z. III.66,67]. Another Buddha image at Abhayagirivihāra was set with a nāga stone, [iMv.37.123].
4. Hair - sometimes was represented with dark blue gems [Mv.38,63].

5. Frontal Band, hemapattā. A hemapattā was an ornament worn by persons of high birth. Statues of the Buddha, even if made of stone or base metal were sometimes provided with this band of gold. [Mv.38,62]. The hemapattā and Unhīsa were sometimes confused for it is stated that the Unhīsa represented the muscular membrane running along the forehead of a Buddha from ear to ear. Later on Bodhisattvas too developed this. It was from them that kings adopted the Unhīsa, [Pap. III.385]. This statement is an illuminating remark on the way that royal emblems were imposed on the iconography of the Buddha and Bodhisattva statues.
6. Pādajāla - this ornament was offered to Buddha images and it was made of gold. [Mv.38,64, E.Z.1.227]
7. Robes - actual robes of cloth were draped round statues, [Mv.38,64] and some portions of the statue were gilded to give the appearance of a gold robe, [Mv. 38,44].
8. The curl of hair between the eyebrows, [Unnaloma] [Wap.544].
9. Golden Parasol, S.ran sāt. The parasol was symbol of royalty and was set up over the head of a Buddha image as a mark of honour. Mahinda IV provided golden parasols to 3 images, [E.Z.1. 237].
10. Pillars - placed at the four quarters around the

image. The pillars were provided with capitals, Kotur tāmb [E.Z. 1. 227]. Sometimes a special pavilion was set up to shelter the image, [Mv.38, 61].

10. Halo - ramsiphalaka, [Mv. 51.12].

In addition to the images of Buddha Gautama, there seem to have been images of Buddha Dīpaṅkara, who occupies an important place in Buddhist lore as the Buddha who announced the future Buddhhood of the Bodhisattva when he was born as Sumedha. There is no actual reference to images of this Buddha but Mv.39.51 seems to refer to such an image.¹

¹ Mv. 39.51 reads as follows:-

Dipaṅkaranagarassa paṭimāya ghare vare Vaddhetvā parihārena mahāpūjam pavattayī. The object of vaddhetvā is "hair relic". Geiger understands the couplet in the sense that King Silākāla preserved the hair relic in a house with the picture of the City of Dīpaṅkara. The translation of paṭimā as a picture is not satisfactory, as paṭimā in Mv. means always a statue and the combination patimāghara is very common in Pali and Sinhalese in the sense of an image house. Nor is there any evidence to show that a city called Dīpaṅkara actually existed and was sacred to the Sinhalese. On the other hand the Buddha Dīpaṅkara is held in great veneration and is frequently mentioned in literary works, because it was this Buddha who proclaimed the future enlightenment of the ascetic Sumedha, who later became Buddha Gautama.

Possibly the word nagarassa in the context above is a misreading for nāyakassa. P. nāthassa has also been suggested, but is against the metre.

Other images that were placed in Buddhist shrines were those of the two chief disciples of the Buddha Sāriputta and Moggallāna, [Mv. 39.53]. Statues of the mother of Prince Siddhārtha, Queen Māyā, is referred to as a statue that should not be made, lest it arouse sensual thoughts in people, [Pap. IV, 180].

Images of Bodhisattvas

Mahāyāna tendencies began to be noticed in Ceylon for the first time in the reign of King Vohārika Tissa, 269-291, A.D. [Adikāram, op.cit. p. 90]. Moreover though the orthodox form of the religion never gave way, the Mahāyānist form penetrated even into the most orthodox centres of the religion. Even the orthodox ritual was permeated by forms peculiar to the Mahāyānist School, and one of the results of this penetration was the setting up of Bodhisattva images in shrines, side by side with those of the Buddha. It is possible that as Mahāyānism gained more and more strength, the Buddha image became gradually less important till it was altogether ousted

by images of Bodhisattvas. Some stone sculptures of Bodhisattvas carved on living rock have survived to this day in Ceylon, and it may be conjectured that these constituted at the time they were constructed, exclusively Mahāyānist shrines, [C.J.Sc.Sect.G Vol.II, p.57]. A house with images of Bodhisattvas was erected on the left side of the Bodhitree, [Mv.38,67]. We also hear of a house with a Bodhisattva image guarded by a watcher, [E.Z. IV.252].

We hear of Bodhisattva images first in the reign of Jetṭhatissa and it is significant that it was in his predecessor's reign that a protagonist of the Mahāyāna persuasion called Saṅghamitta arrived in Ceylon. We are told that though Saṅghamitta could not win over Jetṭhatissa to his way of thinking, ~~but~~ that he succeeded in converting his brother Mahāsena, who became so bigoted that when he ascended the throne he destroyed three hundred and sixty four colleges and monasteries, [Adikāram, op.cit. p.91,92]. But the fact that Jetṭhatissa caused to be made the beautiful image of a Bodhisattva upon a chair of state, with a royal umbrella and a mandapa adorned with rich jewels, [Mv.37, 102-103] shows that he himself was not completely impervious to the influence of Mahāyānist thought.

Other rulers who were responsible for the construction of images of Bodhisattvas were P. Dhātusena, (463-479 A.D.), Dappula (661-664 A.D.), Mahinda II (787-807 A.D.), Mahinda IV (975-991 A.D.)

The data available in the literature surveyed is not sufficient to enable the identification of the Bodhisattvas, whose images were made and worshipped in Ceylon. We are told that images of Metteyya were set up by Dhātusena and Dappula, [Mv. 38,68; 45,62]. Metteyya - according to the views of the Buddhists of Ceylon is at present in the Tusita heaven and will be born in the future as the next Buddha. Dr. Paranavitana has shown that Metteyya is no other than Avalokitesvara as worshipped in Ceylon, [C.J.Sc. Vol.II, p.57].

Images of Bodhisattvas who are not specified by name were also made during this period and Mv. records that several kings caused such images to be made and placed in shrines to be worshipped. We have already noticed the image of a Bodhisattva made by Jetthatissa. Mahinda II (787-807 A.D.) and Mahinda IV (975-991 A.D.) were among others who caused such images of unspecified Bodhisattvas to be made, [M.v. 48.139; E.Z. I. 228].

The Mihintale Tablets refer to images of two deities called Minināl and Nayiñdu whom Dr Paranavitana has identified as Tārā and Nātha, [C.J.Sc.Sect.G, Vol.II,p.57]. Nātha who is today regarded as a popular deity is also considered to be the future Buddha Metteyya who is identified with Avalokitesvara. Copper plaques containing prayers to Avalokitesvara, Samantabhadā, and to Tārā, the Sakti of Avalokitesvara have been found at Vijayārāma, [A.K.Coomaraswamy, Bronzes from Ceylon, p.7], near Anurādhapura, and possibly images of these deities were worshipped in Ceylon at this time.

Status of monks associated with the Buddha occupied a prominent place in the Buddhist shrines of Ceylon, perhaps the most important being those of Ānanda, Sāriputta and Moggallāna, [Mv. 51.80; 39.57]. Statues of the Arahant Mahinda, who is said to have introduced Buddhism to Ceylon, and of his companions began to be made in the reign of Sirimeghavanna, [mv. 37.68, 87]. Mahinda IV (975-991 A.D.) is said to have set the eyes on a great stone statue of Mahinda with large brilliant rubies, [E.Z. 1. 227]. King Dhātusena provided a brilliant crest jewel for the statue of the teacher Upasumbha, [Mv. 38.65].

Images of Hindu gods were also made in Ceylon, as there were Hindu immigrants from India to Ceylon during various stages in this period. Some kings, while being Buddhists, did not hesitate to give alms to Brāhmanas and to make images of Hindu deities. Mahinda II is said to have made images of Gods to be placed in Hindu Shrines, deva-kula, [Mv. 48.143]. The practice of making and worshipping at Hindu Shrines is still prevalent among the Buddhists of Ceylon and it would appear that this practice was prevailing even during the Anurādhapura period. Some of these Hindu Shrines, as is the practice today, may have been attached to Buddhist shrines. The Papañcasūdāni refers to a statue of Indra with a vajra in the hand, [Pap. II, 303, also Dhampag - 93].

Portraits.

When figure sculpture develops in a country it is but a short step to the making of portrait sculptures of the living. There is no data in the early literature of Ceylon or in archaeological remains to ascertain when portrait sculpture began to be practised in Ceylon. There are two figure sculptures in the precincts of the Mahāthūpa at Anurādhapura, which tradition identifies with its maker King Duṭṭhagāmaṇī and his mother Vihāramahādevī, but there is no other evidence to support this identification. Of a later period is the colossal stone statue near Potgulvihāra, Polonnaruva, which has so far been identified as a statue of Kapila, [Vincent Smith, *Fine Art in India and Ceylon*, p.149]. But in a recent address before the Royal Asiatic Society, Ceylon Branch, Dr. Paranavitāna has shown that it is the representation of a king, whose identity cannot yet be ascertained. In India portrait sculpture of the living began with the Kuṣāṇa Kings, who often caused their own portraits and those of their queens to be sculptured in stone near the edifices which they erected, [Stella Kremrisch, *Indian Sculpture*, p.42].

The earliest reference to the figure of a king occurs in the Mv. in connection with the war between King Duṭṭhagāmaṇī and the Tamil ruler Elāra. During one stage of the battle the soldiers of King Duṭṭhagāmaṇī made a rājarūpaka - the figure of a king to mislead the Tamils, [Mv. 25.56].

It is difficult to say whether this figure was an exact likeness of the king or whether it was merely a figure to suggest the presence of the king, with his royal robes and emblems. But the occasion was one of emergency and the distance between the two must have been considerable and therefore the figure could not have been of such a kind as to be considered a portrait figure. The commentary to the Mv. mentions an image house by the name of Elārapaṭimāghara situated near the spot where the combat between King Duṭṭhagāmaṇī and King Elāra took place [Vap.483]. Here again it is doubtful whether the Elārapaṭimāghara was so called because this image house contained a statue of Elāra as a memorial - or whether it was a sacred image house containing images of the Buddha erected by Elāra. Though in the context the spot where the battle took place is indicated by reference to the image house, the latter may have been erected later to mark the spot and when the commentary was compiled the spot was usually indicated in reference to the image house.

There is a more definite reference to portrait sculpture in the Mv. in the reign of Silākāla, who made statues of his maternal uncle and aunt in gold and placed them in the shrine of the Hair Relic, [Mv. 39.52,53]. Though these statues are said to have been made of gold - probably they were only gold-plated as most statues were at this time.

Sculpture of Miscellaneous Objects.

Among the objects sculptured in various materials the following are commonly mentioned in the Sinhalese and Pali literature of the early period.

1. Gatekeepers - dvārapāla rūpa [Sum Vil.994].
2. Men and women going to the temple to listen to a sermon [Pap. IV. 150,151].
3. Crescent shaped stone steps. [Mv. 31.61].
4. So called Dhammacakka wheel on pillars, [Mv.36,103; VAP.671].
5. Lions and tigers and shapes of devatās on pillars, [Mv. 28.30 Sikhavi. 75].
6. Young woman in bronze, [Mv. 38.56].
7. Horses, [Pap. IV, 150, Dhampiyāṭuvā 108].
8. Elephants, [Pap. IV,150, Dhampiyāṭuvā 108].
9. Pots, ghaṭa, [Smp.291].
10. Dragon Heads, makara mukha, [Smp.291].
11. Head of water snake, deddubhasīsa, [Smp.291].
12. Eight auspicious objects, atthamaṅgalikāni, [Sikhavi.75].
13. Soldiers, [Sikhavi.75].
14. Dragon teeth, Makaradanta, [Smp.290].
15. Birds, floral and creeper designs, zig-zag designs. [gomuttaka] [Smp.292].
16. Mushrooms.
17. Cobra with many heads, [Mv. 31.54].

It is noteworthy that the Asokan symbols common in India in the sculptures at Sanchi and other sites, had been used in Ceylon during this period. Pillars with figures of animals such as lions were used in the construction of the Lohapāsāda, [Mv. 28.30]. Goṭhā-bhaya (254-267 A.D.) placed pillars with wheel symbols at the four corners of the wall around the sacred Bodhi tree, [Mv. 36.103; Vap. 671]. A series of dhammacakka figures were also placed in the relic chamber of the Mahāthūpa. Reference is also made to some figures of deities placed there, called dhammahāarakadevaputtā, [Vap. 549]: These probably were pillars into which were incorporated the figures of the various deities, with representations of the wheel as capitals. It is also remarkable that these symbols should first be mentioned in connection with the reign of Duṭṭhagāmanī (161-137 B.C.), for at this time work on some of the Indian stūpas was also in progress. Probably Duṭṭhagāmanī secured the services of Indian sculptors in his undertakings, for we are definitely told that he obtained a particular kind of marble for the Mahāthūpa from the Uttarakurus, which probably is meant to indicate some part of India. On the occasion of the enshrining of relics in the Mahāthūpa, a large number of visitors from India arrived in the Island to participate in the festival. The relics enshrined in the Mahāthūpa too came from India and it is quite likely that Gāmanī sent for Indian craftsmen who were more

experienced in this type of work than were the Sinhalese. For over a hundred years the excellence of the sculptures inside the relic chamber of the Mahāthūpa was remembered and King Bhātiya, (38-66 A.D.) is said to have made a set of sculptures in imitation of those in the Mahāthūpa. The commentary to the Mv. in fact gives the fanciful explanation that moulded figures came to be known as potthakarūpa, because the first moulded figures were made by King Bhātiya in imitation of the sculptures in the Mahāthūpa, [Vap.554]. Perhaps the statement in the commentary represents a faint recollection of the making of wax or clay figures modelled on the Mahāthūpa sculptures.

The sculptures of this early period at any rate, seem to have been very pleasing, for we are told that a dvārapāla figure at the Cittalapabbata monastery in the South of Ceylon was so life-like that a Buddhist nun fell in love with it, [Sum.Vil.994]. Though this statement has to be regarded as being highly exaggerated, even today it is quite well known that some of these dvārapāla figures are among the best examples of the sculptor's art found in Ceylon.

Processes and Materials.

The chief materials used in sculpture were stone, bronze, clay, bricks, wood, ivory, silver, gold and sapphire (indanīla). The literature of the period does not mention what particular

kinds of stone were used, but one of the commonest varieties seems to be gneiss, *kālapāsāna*, [Vap.345]. Often sculptures are described as *silāmaya* in Pāli, [Mv.42.18] or as *sala* in Sinhalese, [E.Z.1.103]. Sculptures of bronze and clay were common and according to a statement in the *Samantapāsādikā* commonly statues and figures were made of bronze (*loha*), clay (*pothaka*), and ivory (*danta*), [Smp.278]. In making large sculptures, particularly works such as the "elephant wall" (*hatthipākāra*) bricks were used as a core and lime plaster applied over it, [Mv.38.8]. Though gold and silver are commonly spoken of as being used in the making of statues, the high cost of these metals would have prevented their being used often. Mahinda II (787-807 A.D.) spent 60,000 *kahāpanas* to make a gold image of the Buddha to be placed in the *ratanapāsāda*, [Mv.48.137,138]. It is quite possible that some of the sculptures which are described as being of gold and silver were actually only plated with gold. It is probably for this reason that the Mv. sometimes describes a sculpture as being wholly made of gold, *sabbasovannamaya* [Mv.37.191, 50.66], for the word *sovannamaya* had lost its literal meaning and had come to mean merely 'gilded.'

Miniature statues and carvings were also made of precious stones and the commonest stone used seem to be the sapphire, *P.indanīla*. It was so commonly used that the author of the *Dhampīyā aṭuvāgāṭapadaya* explains the Pāli term *maṇirūpakam* as

a statue made of the blue sapphire, indunil-pilimayak [Dhampag p.144]. Details of the processes and tools used in the making of statues and images are rarely found in the texts. These processes and tools must have obviously been of a varied character, depending on the materials used. Statuary made of stone, wood, ivory and other non-metallic materials, would, obviously, have required a wide range of chisels and hammers, to which references are found in the texts, [see chapter on Tools].

When images were made of metals, such as bronze which appears to be connoted by the term P. loha when employed in connection with statues, [Smp.278] the method of casting by the cire perdue process appears to have been used both in India and Ceylon. Though the process is not mentioned in the literature of ancient Ceylon, this process is employed by traditional craftsmen in Ceylon even today. It was also employed in India from very early times, [O.C. Gangoly, South Indian Bronzes, p.29]. Though two variations of this process which was known in India as Sk. maducchista-vidhanam, were employed in making solid and hollow images respectively, only the former type of image appears to have been made in Ceylon and South India, probably because it was believed that the making of hollow images would result in loss of the wife of the maker of the image and other undesirable consequences, [ibid.] This process is briefly referred to in the Manasara, but is described

in detail in the Abhilasitārtha-cintāmanī a Sk. work of the 12th century A.D.¹

Images made of metal were gilded [E.Z. I. 228], but those made of wood and other materials may possibly have been painted over, as is done today.

Metal images are sometimes described as P. ghanakottima, [Mv. 51.69], which term Geiger translates as 'Jointed mosaic'. The use of the word mosaic here by Geiger is misleading, because it is inconceivable that ancient image-makers should attempt to make on the images any patterns, which are characteristic of mosaic work.

This term, however, is clearly explained in the Dhampag, the interverbal commentary to the Pali Dhammapadatthakathā. In explaining the term P. ghanakottima-ratta-suvanneneva it says that what is meant is that the particular object was covered with thick sheets of well-beaten gold, as is done when the wooden frames of doors and windows are covered with gold so that the wooden portions are not visible.²

¹ S.K. Saraswati, An Ancient Text on the Casting of Metal Images, in the Journal of the Indian Society of Oriental Art, Vol. IV. p. 36.

² Dhampag. p. 121: gana kotame ratranin me ghana kota talā sannivesa kala ratranin me yū sēyi. dora kavulu āyi pānena tāk dāva vasa ran kasu kam kele yeti mahatuvāyehi.

This shows that ghanakottima was a method of enclosing an object in plates of metal and that statues so described were covered with sheets of metal. That this method was adopted in Ceylon is shown by two passages occurring in the Pūjāvaliya, a Sinhalese work of the thirteenth century. In these passages stone and iron statues are spoken of as being covered with sheets of gold.¹

¹ Pujāv. p.18.

Tāge ruva matupita ranpottakin vasā ātulata galakin
nimiye da ? nohot tāge tela sarīraya yakandakin nimavā
ranran ketē da ?

Is your body covered on the outside with a sheet of gold and your inner body formed of stone ? Or is that body of yours made of iron but outwardly gilded ?

Ibid, p.118.

Dāgāb binda bodhi sākā kapā ran pilima potu lola bana
pot sinda me pav kirīmat ānantariya karmayata ātulat vana
heyin ohut ē budun no dakitmaya.

They too who break into stūpas, cut down branches of Bodhi trees, remove gold sheets covering images, or slash religious books will not be able to see that Buddha, because these sinful acts come within "the acts of limitless consequences."

Aims of Painting and Sculpture

The aims of art in ancient Ceylon were religious and decorative. As in India, the conception of art for art's sake was absent here. It has been often thought that Ceylon's ancient art was religious, because what has survived of Ceylon's ancient art has been connected with her religions. But it is inconceivable that the people of Ceylon should have devoted their artistic abilities only for purposes of worship. The Kings and potentates too, while contributing generously to the construction of shrines, would have adorned their homes with sculptures and paintings on which they spent lavishly. There is no data available in the early records that throw much light on the non-religious art of ancient Ceylon, because the Chronicles were mainly, if not solely, concerned with recording the achievements of Buddhism. But the paintings at Sīgiriya are an illuminating example of this court art, which is rarely mentioned in the literature of the period. In fact there is no reference at all to these unique paintings either in the Mahāvamsa or in the Dīpavamsa. But the information available in the Mv. about later rulers such as Vijayabāhu I, and Parakramabāhu I of Polonnaruva gives us a glimpse of the works of art that must have graced the palaces of the kings and ministers of the Anurādhapura period, [Mv. ch.60, 78].

In addition to this court art there were also many arts

and crafts among the people - the peasant and the workman. Information regarding these activities is still more scanty, but a few references to the products of these arts and crafts are to be found in the Sinhalese literature of the latter part of the Anurādhapura period. The Sikhavalaṇḍa and its Commentary refer to domestic utensils such as water vessels, alms bowls and articles of personal use such as buckles of belts used by monks. All these articles were decorated with designs incorporating representations of flowers and animals, [Sikhavi 75; Smp. 291]. Some of these designs can be seen employed in articles manufactured in Ceylon even today.

Thus it is possible to classify the arts and crafts of ancient Ceylon into three divisions as follows:-

(1) Religious Art; (2) Court Art; (3) Popular Art.

Religious art it may be readily understood consisted of elements from both the Court art and the Popular.

Religious Art

Perhaps it is not out of place to examine further the situation with regard to religious art in ancient Ceylon. The aims of religious art were to provide objects that would inspire devotion and demand worship, to instruct and to decorate.

To fulfil these three aims, three different types of painting and sculpture were produced. The objects of worship

were the figures of the Buddha or other saints. To instruct people in Buddhist lore, to teach them the Buddhist way of life by setting before their eyes the examples set by the Buddha in previous births, stories connected with his life such as the Jātakas and the renunciation were depicted in colours or in stone. Most literary works in Sinhalese, beginning with the Amāvatura of the 11th century, deal at length with the life story of the Buddha and of his previous births, particular attention being paid to the Vessantara Jātaka. It would appear that the sculptures and paintings in Buddhist stories acted as something complementary to these literary works, in that they provided illustrations for what was written. To satisfy the aesthetic demands of the worshippers these two types together with the decorative type were combined in one and the same shrine.

The Image House

A development significant in the history of Buddhist sculpture and painting was the image house. In India in the early period of Buddhist art, in shrines such as Sānchi, Bhārhut and Amarāvati, the one object of worship was the stūpa and the sculptures were meant for the edification of the worshippers. In Ceylon too at first the only object of worship was the Bodhi tree and the stūpa. The first Buddha statue we hear of was placed inside the relic chamber of the Mahāthūpa. It was quite proper that these stūpas should be objects of

worship, for they contained the corporeal relics of the Buddha, (sārīrika dhātu). Perhaps as a result of the scarcity of such relics, articles used by or associated with the Buddha were considered fit to be worshipped and the Bodhi tree and the Alms bowl therefore became in Ceylon important objects of worship, [Adikāram, op.cit. p.139] But even such articles (pāṇbhogika dhātu) were limited in number and therefore some service had to be resorted ~~to~~ to, to provide an object of worship, and the figure of the Buddha was adopted for this purpose.

But it appears that at first a mere image of the Buddha was not by itself regarded as a sufficiently emotive object of worship, and the earliest Buddha statues were placed under or near the sacred Bodhi tree, [Mv. 35.89; 36.31; 36.104; 37.31; 41.94]. Furthermore, statues of the Buddha were during these early stages used more as containers of the relics of the Buddha rather than as images which are by themselves worthy of worship. Thus the Papan̄casūdanī says that if a branch of a Bodhi tree obstructs an image containing a relic, that branch should be cut, [Pap.IV. iii]. This practice of placing Buddha relics inside a statue seems to have continued up to later times, [Mv. 37.191]. The Buddha statues placed underneath the Bodhi tree had to be sheltered from wind and rain, and a small house was erected therefore to shelter the image. This perhaps is

how the patimāghara came into being, for later the shelter with the Buddha statue was set up independent of a Bodhi tree, and even if a Bodhi tree was available the increased proportions of the statue and the house would not permit the whole shrine to be placed at the foot of a Bodhi tree. In fact, the first image house, according to the Mahāvamsa, was built by King Vasabha (66-110 A.D.) but it was set up at the foot of the Bodhi tree, [Mv. 35.89]. What could be considered as the first independent image-house, however, was set up by King Mahāsena (277-304 A.D.) at the Abhayagiri Vihāra, [Mv. 37. 14,15].

Once the practice of setting up image-houses was established the Buddha became more and more important till Mahāyānist ideas were introduced to Ceylon when the Buddha image had to face strong competition from those of Bodhisattvas. In the image-house the Buddha image ceased to be an image and was regarded as the living Buddha. In the Mv. Buddha statues are called: Silā Satthu, stone teacher, [Mv. 38.61]; Silāmayamahesi, stone chief of sages, [Mv. 38.61]. An exact parallel to this conception of the Buddha image is to be found in the word for a statue of the Buddha in modern Sinhalese, pilimavahanse, where vahanse, an honorific suffix used only with nouns indicating persons, is used with the word for image - an inanimate object.

When Mahāyānist ideas and ritual gained a foothold in Ceylon, it would appear that the stark simplicity of the earlier Buddha-image placed it at a disadvantage in comparison with the

images of Bodhisattvas, whose images were represented usually by the figure of an Indian prince in all the splendour of his ornaments.¹ Ornaments and rich raiment were lavished on Bodhisattva images by the Kings of Ceylon, [Mv. 37.102; Mv.38.68] and the Buddha-image perhaps was threatened with extinction unless it could be brought into line with new concepts of iconography. Thus Buddha images, began to be adorned with rich jewels and ornaments, [Mv. 51.87; 53.49].

Ritual connected with the Buddha image also underwent a change. References occur to a ceremony connected with these images which is called 'abhiseka'. Dhātusena (463-479 A.D.) is said to have performed an abhiseka to a Buddha statue [Mv.38.54]. Images are also distinguished by the term abhiseka, [Mv.38.65; 39.7]. It would appear that when the Buddha image was provided with ornaments which are usually associated with royalty it was incomplete unless the actual anointment ceremony was performed. The Papan̄casūdanī seems to refer to this process when it says that Bodhisattvas and Kings imitated the Unhīsa from the Buddha. A similar process of regarding the Buddha-image as a crowned king seems to have prevailed in India, where the image instead of being anointed was actually crowned.² The need for this crowning has been explained as caused by a desire to adorn the statue for purposes

¹ Getty, Gods of N. Buddhism, p. xlii.

² S.K. Sarasvati and K.C. Sarkar, Kurkihār & Bodh Gayā, p.9.

of ritual [Ibid, p.10]. It is interesting to note that in the 10th century some Buddha images were described with the epithet mangul, [E.Z. 1. 103]. Mangul when used as an adjective often means royal, as in S. mangul uyana, royal park, mangul kaduva, royal sword. Whether the image also was called mangul maha sala pilima - the great royal image made of stone, because it was gifted by the King, or because it was also an anointed image, is difficult to ascertain without further evidence.

CHAPTER VII

MONASTIC AND OTHER DWELLINGS

Monastic buildings form a very large portion of the archaeological remains of ancient Ceylon. Very few traces of domestic buildings have survived the times and their scantiness has to be explained as being due to the materials with which they were built. On the other hand monastic dwellings were built with lasting material such as stone or brick and therefore have escaped the fate of the domestic buildings.

During the first two or three centuries of its existence in Ceylon, Buddhism advocated a simple life for the monks and as a result building of monastic dwellings was not considered an important duty of the Buddhists, but with the first signs of the decline of this simple and almost ascetic life, monks showed a desire to live a life of greater comfort.

In the Pali commentaries are found references to the importance of making Vihāras for the monks. One such stanza says that the donation of a vihāra has been extolled by the Buddha as a foremost act of merit and that therefore the wise man, intent on his own well-being should cause to be built beautiful vihāras and cause wise monks to dwell therein.¹

¹Pap. III. 26.

Vihāradānam sanghassa aggam buddhena vannitam tasmā hi
pandito poso sampassam atthamattano vihāre kāraye
ramme vāsayettha bahussuto.

While the Sumaṅgalavilāsinī quotes another quatrain which says that the giving of monasteries to the community of monks for their shelter and comfort so that they could meditate and gain insight, has been extolled by the Buddha as a very noble act.¹

It is significant that in both these stanzas importance is attached either to the delightfulness of the Vihāra, (Vihāre ramme) or to the comfortableness of the Vihāra, (Sukhattham). In addition to the decline in the ascetic life of the monks, the period subsequent to the first century A.D. saw the rapid development of the Country. Large tracts of land were opened up for agriculture and colossal tanks were built by erecting dams across rivers. Trade connections were also established with distant countries such as Rome and China, [U.C.R.II, p.92]. Princes and noblemen made lavish offerings to temples and large estates were granted to the temples for their maintenance. These lands belonging to the temples in turn earned large incomes for them, and these incomes were once again utilized to expand and repair them.

The variety of buildings set up during this period is reflected in the literary works and among the different types of building are the following:-

¹Sum Vil. 241:

lenatthañca sukhātthañca ghāyitañca vipassitum
vihāradānam saṅghassa aggam buddhene vannitaṃ

image-house, P. paṭimāghara, [Mv.25.89.]

shrine of gods, P. devakula, [Mv.48. 143].

shrine of the King of Gods, P. devarājaghara, [Mv.62.11].

hall where ticket rice is distributed, P. Salākagga, [Mv.49,14].

refectory, P. bhattagga, bhattasāla, [Mv.49.78; 36.12].

sitting hall, nisīdanasāla, [Pad. p.203].

hall where monks assemble to attend upon their seniors, or to worship the Buddha, P. Upaṭṭhānasātā, [Dhampag p.21].

meditation hall, P. padhānaghara, [E.Z.III p.103].

general dwelling house, P. pannasālā, [Mv.19.26].

preaching hall, P. dhammasālā, [Mv. 60.17],

house where the Uposatha is held, P. uposathagga [Mv.4.13].

nunnery, P. bhikkunupassaya, [Mv.19.68].

dispensary, S. behetge, [E.Z.I.p.38).

hospital, P. vejjasālā [Mv.37.145], gilānasālā, [Mv.37.211]

and S. Vedahal [E.Z.II.p.22].

kitchen where rice is cooked, P. odanīyaghara, [Smp.p.380],

kitchen where hard food is cooked, P. pūvageha, [Smp.380].

general kitchen, P. mahānasa, [Mv. 50.76].

granary, P. dhaññakoṭṭhāgāra, (Vap. p.607].

bathing enclosure, S. nahanatōṭa, [Sikha. p.5].

water closet, S. sulūdiyavaṭan, [Sikha. p.5].

lavatory, S. ovasgeya, [Sikha. p.5.].

In addition the following secular buildings are also mentioned: rājavatthu [Smp.99], royal palace, Ummagga [Mv.55.7]

tunnel, Kārāgāra [Mv.70.264], dungeon, bandhāgāra [Mv.38.87], prison, āpana, shop, [Mv.30.29].

Caves were some of the earliest dwellings which were used by Buddhist monks. It would appear that these caves were not used purely as dwellings - but as places of seclusion away from the noise of towns and cities, where monks could practice meditation without being disturbed. Though monks would resort normally to a cave away from the cities, they usually selected a cave which was reasonably accessible to a village from which they could receive alms. Such a village was known as gocaragāma. When a monk found a cave that satisfied his needs, he filled it with firewood and set fire to it in order to get rid of any dirt or odour there may be in it. Then brick walls, windows and doors would be set up and a floor of clay prepared. Outside the cave would be prepared the caṅkama, where the monk could walk meditating, [Man. I. 45]. The simple furniture in a cave used by a monk included a bed and a stand made of bamboo for placing the robes [Man.II.59].

Some caves were more elaborately prepared and decorative designs, latākamma and mālākamma were worked on the plaster, [Sum Vil.697] and sometimes even pictures of incidents were painted on the walls, [Pap.III, p.203]. A wall, perhaps of clay and stone was also built around it, [Pap.III. 203]. In most caves a dripline was cut to prevent the rain

water trickling down the walls, and it was on the even surface below this dripline that the early Brahmī inscriptions were incised. Just as some of the Kutis in which the Buddha lived were given different names such as Gandhakuti, Kosambakuti [Sum. Vil.407]. Some of these ancient caves were given names such as Manāpadarsana and Sudarsana which were incised below the dripline in front of the cave.¹ There was such a demand for these caves by Buddhist monks in early Ceylon, that King Devānampiyatissa caused sixty eight caves to be prepared for Arahant Mahinda and his followers, [Smp.p.82] at Cetiyapabbata.

During the first phase of Buddhism, the monastic buildings must have been similar to those in India, with perhaps modifications necessary to render them suitable for local conditions. Thus in the commentaries we get references to a set of different types of monastic buildings which probably were common in India. But later writers seem to explain the features of these buildings as if they were familiar with them in Ceylon too.

According to the commentaries the different types of buildings which are considered suitable for senāsanas are the following [Pap.214,215; Vsm.25]:- (1) Vihāra, (2) Adḍhayoga (3) pāsāda (4) hammi (5) guhā (6) lena

¹ Bell, Kegalle Report, p. 70, 71.

(7) kuṭi (8) kūtāgāra (9) atṭa (10) māla (11) uddanda
(12) upatthānasālā. (13) maṇḍa.

It may be remarked at the outset that in the above list nos. 1 and 12 are not types of buildings from the point of view of their construction. In fact according to the Sinhalese commentary on the Visuddhimagga, a vihāra is any monastic residence enclosed by a wall, [p.77].

Addhayoga is explained in the same work as an oblong pāsāda, having the form of the wing of a garuḍa bird, whereas pāsāda is described as a four-sided pāsāda. According to the same work hammi is a house with projecting balconies; a guhā, a rock cavern without doors; a lena, a cave with doors. A Kuṭi is a cell. A Kūtāgāra is described as a house made by setting up two kāṇi (kāṇṇikā) while an atṭa is a structure of four or five stories built for the purpose of warding off hostile kings. Māla is a structure of one ridge but many sided. Uddanda is a chamberless house with one door.

Lena has already been discussed. It is now proposed to examine further the nature of some of the architectural types mentioned above.

Addhayoga, according to the Abhidānappadīpikā, (quoted in P.T.S.Dict) is explained as: ekapasseyeva chadanato addhena yogo addhayogo.

This statement is not sufficiently clear, but the

reference to half of the roof and to the shape of the wing of the garuḍa bird in the Visuddhimagga sanne above, probably points to a kind of house quite common in Ceylon. Its roof is one of the simplest, and consists of two inclined roofs of unequal breadth joined together on a horizontal ridge pole and is illustrated in Fig. I. It is seen from the above diagram that ABC and A'B'C' have some semblance to the shape of the wings of a bird, CC' being the space where the body of the bird should be. The simplest kind of roof construction consists of one inclined roof as shown in Fig. 2.

Pāsāda, as explained above throws no light on its construction nor on its dimensions. Perhaps it meant a residential building of ample proportions and was loosely used to denote any large buildings, particularly those used by Buddhist monks as their confessional Hall. The well-known Lohapāsāda constructed by Duṭṭhagāmaṇī at Anurādhapura was the Confessional Hall, (UPOSATHĀGĀRA) of the Monks of the Great Monastery.

In addition to the Lohapāsāda, a number of other pāsādas were built by different kings at Anurādhapura for the use of the Buddhist monks and some of their details may be studied here.

The Lohapāsāda, says the Mahāvamsa, [Mv.27.24-42], was four-sided, on each side a hundred cubits and its height

too was a hundred cubits. There were nine stories and in each story a hundred Kutāgāras. All the chambers were overlaid with silver and their coral vedikās were adorned with manifold precious stones and floral designs. A thousand well-arranged chambers were in the pāsāda. It had also an underground basement, [Mv.37.53]. The pillars of the pāsāda were adorned with the figures of lions, tigers and other animals, and the shapes of devatās. In the centre of one of the stories was the ivory throne ornamented with carvings of Jātaka tales. This throne was probably meant for the chief Thera who presided at the meetings of the Saṅgha.

The construction of the pāsāda cost King Duṭṭhagāmaṇī thirty kotīs. It was so colossal in dimensions that it provided a landmark and probably the dimensions of the building are exaggerated in the statement of the Mahāvamsa commentary when it says that it could be seen by people standing on the rock called Udumbarasāla which was nine yojanas away and that in the west it could be seen up to a distance of one yojana from the sea coast [Vap. p.505].

The ruins of the Lohapāsāda have not yet been found, but it is quite possible that a very large portion of the structure must have been of wood, for if it had been wholly built of stone, it would not have been possible at that time to make it a nine storied building. It was possibly

because of this that in the reign of King Saḍhātissa, the brother of King Duṭṭhagāmaṇī the Lohapāsāda caught fire and was destroyed, [Mv. 33.6].

Other references to pāsādas occur in the texts, but often they are storied, [Mv. 38.52; 50.65], though a pāsāda of clay and of more modest proportions is said to have been built by King Devānampiyatissa for the use of Thera Mahinda, [Vap. 363].

Kūtāgāra. This term P. kūtāgāra, S. kulu gē, occurs often in literary works, but its precise meaning has never been quite clear. In English works it is often translated as a "gabled house". A gable is the vertical triangular portion of the end of a house from the level of the eaves up to the ridge of the roof.

But in works where the term Kūtāgāra is explained, it is always explained as a house with a S.Kāṇi, P.Kaṇṇikā¹.

¹

Dhampag, p. 50:

kūtāgāramatto, kulāra ge paṃaṇa - ek kaṇimaṇḍul di nangū vaṭa gekak paṃaṇa yū tan.

kūtāgāramatto means space equal to a circular house built with a kaṇimaṇḍul, (P. Kaṇṇikāmaṇḍala) ibid. p. 87:

kaṇimaṇḍul yojā kaḷa pahā kūtāgārasālā nam.
a mansion built having set up a kaṇimaṇḍul is a kūtāgārasālā
Jā-ag, p. 98:

Kūtāgārasālā nam eka kaṇmaṇḍulla nangā kaḷa sālāvayi
a kūtāgārasālā is a hall built by having set up one kaṇimaṇḍul.

Depending on the term maṇḍulu used in the texts in conjunction with the term kāṇi, Dr. Paranavitāna has explained the term as a circular ring which holds together at the top the rafters of a roof, [The stūpa in Ceylon, p. 88].

A. K. Coomaraswamy explains the term kūṭāgāra as a chamber with walls and having a ridged or barrel vaulted or domed roof, [Eastern Art, Vol. II, 1930, p. 193]. In his view P. kaṇṇikā meant a circular roof plate, the meeting place of the converging rafters of a building. He also believed that the kaṇṇikā, as the name itself suggests, had almost certainly the form of a lotus, [I.H.Q. Vol.14. p.33].

The idea that a kūṭāgāra was a domed building and therefore probably a circular chamber is supported by the statement of the Dhampag [p.50] quoted above.

But the fact that a bier is also called a kūṭāgāra, shows that a kūṭāgāra was also probably a chamber with a barrel vaulted roof or a ridged roof, because kūṭāgāras used today in funerals are constructed in either fashion. Further more, there are references in the commentaries that show that a tree was necessary to make a kaṇṇikā, [Man. II. p.20; Vsm.413 and Sum Mil. p. 714] and from these statements one gains the impression that the whole tree trunk was used as a kaṇṇikā. If this be so the kūṭāgāra must have been a building with a barrel vaulted-roof or a ridged roof.

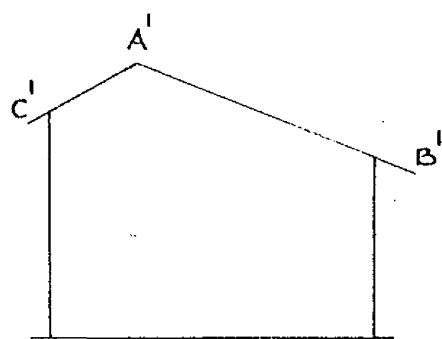
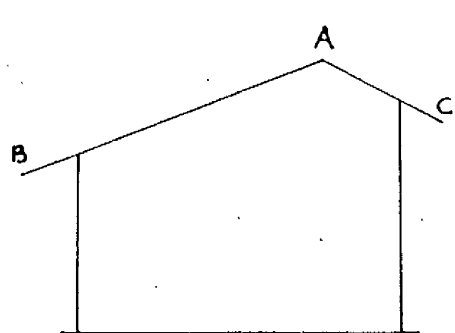


Fig i

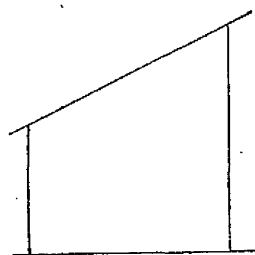


Fig ii

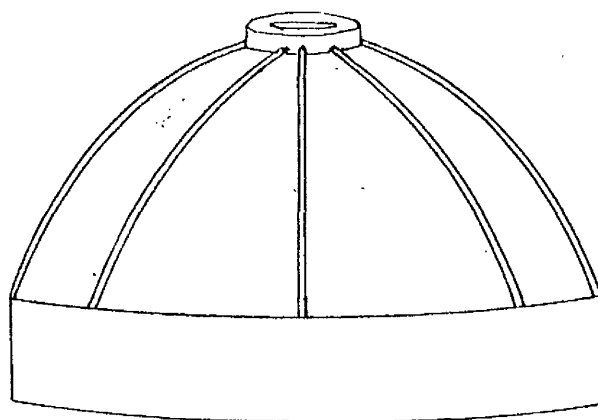


Fig iii

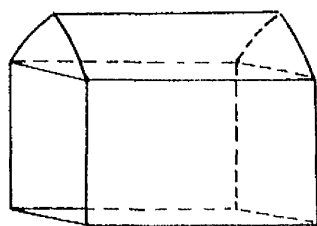


Fig iv

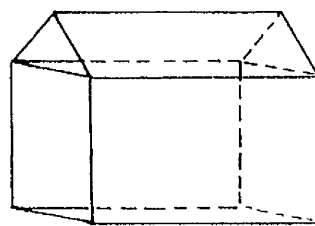


Fig v

Probably a kūtāgāra may have had any one of the three types of roofs mentioned earlier. The three types are illustrated in Figs. 3, 4 and 5. The kūtāgāra was popular both in India and in Ceylon, because of the gracefulness of its shape, which even inspired the shape of the bier used in connection with the funeral obsequies of august personages like the Buddha, and Kings like Elāra of Ceylon, [Mv. 25.73], Kūtāgāras were incorporated into bigger buildings such as pāsādas, [Mv. 27. 13-17] being set up sometimes on pillars, [Sum Vil. p. 309]. The roof was sometimes plated in silver, [Mv. 27.26]. A pāsāda with Kūtāgāras incorporated was considered to be as beautiful as a devavimāna, [Sum.Vil. p.309]. For structural reasons the kūtāgāras would be placed on the topmost story of a pāsāda; if they were on lower stories they had to be constructed in some such fashions as modern balconies, so that they could have their characteristic roofs.

Hammi, was according to the Samantapāsādikā, a mundacchadana-pāsāda, a pāsāda with no thatched roof, i.e. its roof was flat and probably made of some material such as wood or plaster, (P.sudhā) reinforced by wooden beams and rafters, [Smp.p.654].

Atta, attāla and gopura are terms used to indicate various sections of the gates of a fortress. Atta was a projecting tower in the second or third story of the gateway. [Indian Art, Vol. II, p.214]. Though this is

essentially a term connected with military architecture, the inclusion of atta among places where monks could reside, shows that there were attas in monastic buildings. As will be shown in the sequel - monastic dwellings sometimes shared the features of fortifications. In modern Sinhalese the term atu [P.* attaka indicates a kind of lumber room on the topmost floor of a house, or an attic.

Malaka. The Samantapāsādikā defines a mālaka as a four-sided pāsāda, with one ridge, Kūṭa [p.654: ekakūṭasaṅghito caturassapāsādo]. The mālaka could not have been of large dimensions, for the Mahāvihāra had thirty-two of them, [Mv.Translation p.99], and also it was limited to one ridge. The Sumaṅgalavilāsinī describes a mandalamāla, a circular māla simply as a sitting hall, p.nisīdana-sālā, [Sumvil p.407], whereas the Samantapāsādikā describes it as consisting of a single chamber, P.gabbha, around which there was a passage where a monk could walk [p.532]. A mandalamāla is also described as a hut (anovassakam) with a roof thatched with grass or leaves [Pad.203].

Uddanda which is described above as consisting of a single chamber with one door, may have been a small chamber set up on stakes driven into the ground, as the name suggests. Though rarely such buildings were erected in Ceylon [Mv.26-20] the term ekadoraya vihāra, the one doored vihāra occurs in a Rock Inscription at Pahalakayināttama, [E.Z.111-p.162] and a vihāra by the name of Ekadorika vihāra is referred to in the Mahāvamsa, [35 p.58; also Vap.p.648].

Parivena. A term that does not occur in the list given above, but which occurs very often as indicating some kind of monastic building is the term parivena. The Samantapāsādikā enumerates the vihāra, the parivena and the āvāsa [Smp.339] as the three types of monastic residences. From this passage the parivena seems to be any type of building used by a monk or monks, but is smaller than a vihāra and larger than an āvāsa. A group of parivena sometimes formed a vihāra and when we are told that the great monastery at Tissamahārāma consisted of three hundred and sixty parivenas [E.Z.III,p.222-223], it appears as if a parivena was not larger than a kuti, a cell.

But there were parivena of impressive proportions and one such was the famous Mayūraparivena at Anurādhapura, which was twenty five cubits in height, [Mv.38. 52]. Pāsādas were also called parivenas, as in the case of the Kālapāsāda [Mv.15.204]. Thus it is difficult to ascertain the function or the features of a parivena, but it seems clear that it was not an architectural type. It is more likely that it was a monastic dwelling, where monks engaged themselves either in learning or in meditation. The meditation hall called the Mātambiya padhānaghara is described in a Sinhalese inscription as a pirivena P.parivena [Mv.46.19] [E.Z.II.p.10]. It is significant that from the twelfth century onwards the pirivena [S.Pirivena] gains the sense of a

college or seat of learning. During the 14th and 15th centuries the parivenas of Kotte, Rayigama and Totagamuva were famous for the erudition and versatility of the teachers who were employed in them.

Kuṭi. A Kuṭi in the list given above is described as a simple cell. Perhaps in the early stages, it was a simple cell as is seen in the Samantapāsādikā, which says that it must be 12 vidatthi in length and seven vidatthi in breadth. Its walls were of mud covered with a layer of mud and paddy husk [Smp.p.567]. Those monks who did not conform to these dimensions in making a Kuṭi would be [Sum Vil p.407] guilty of an offence, ranging from dukkata to thullaccaya. A Kuṭi belonged to the architectural type Kūṭāgāra, for we are told that a kannikā of wood was used in building a kuṭi, [Sum Vil.p.714].

Though the four well known Kuṭis of the Jetavana monastery, where the Buddha lived, namely the Kareri-Kuṭi, the Kosambakuṭi, the Gandhakuṭi and the Salalagharakuṭi were large houses, (mahāgehāni), the essential feature of a Kuṭi seems to have been its simplicity, for even a seven storied mansion was entitled to be called a Kuṭi if its roof was thatched with grass, under which circumstance such a building would be called a tinakutika [Smp.p.573].

The Monastery

The two earliest Vihāras established in Ceylon were the Mahāvihāra at Anurādhapura, and the Cetiyagirivihāra, at Cetiyagiri. Both these Vihāras were established by Devānampiyatissa for the accommodation of the Thera Mahinda and his followers. Though the Pāli chronicles describe these buildings, particularly the Mahāvihāra, as having been full of splendour, it is quite possible that these descriptions are not free from an element of exaggeration. It is true that with all the enthusiasm of a convert King Devānampiyatissa lavished all comforts on the monks who arrived in his capital from India, but it is also significant that Thera Mahinda was not quite happy to spend the Vassa Season at Anurādhapura and hastened to the quiet peace of Cetiyagiri, [Mv.16 p.5-10].

The essential parts of a monastery during this early period were the stūpa, the Bodhi tree, the residential quarters and the Uposathāgāra, where the monks recited the pātimokkha. That these were the main structural features in a monastery is shown by the list of duties enjoined upon monks in the Pāli commentaries (Sam Vin.p.169]. A significant omission is the image house. The material of the Pāli commentaries was put into final shape in the first century A.D., though, as Adikāram says, they experienced additions, subtractions, systematizations and corruptions at the hands of teachers learned and otherwise during the next three centuries,

until they were translated into Pāli by Buddhaghosa and his successors, [Adikāram, Early History of Buddhism in Ceylon, p.87].

It is probably because the image-house did not become an integral part of a monastery till after the first century A.D. that the Commentaries do not mention any duties on the part of monks towards the image house. The first mention of an image-house as an independent shrine in the Mahāvamsa occurs in the reign of King Mahāsena. [Mv.37-15]. The monastic duties referred to above formed a part of the religious duties of monks.

But as has been shown earlier, there was a variety of buildings in a monastery, which were intended to serve the different needs of a monastery. When larger and larger incomes were collected by monasteries, as a result of the grant of large tracts of land to them by generous princes and kings, they became large and busy institutions with a complex administrative organization. In monasteries such as those of Mahāvihāra and Cetiyagiri the number of resident monks was so great that they had to establish their own hospitals [Mv.51.73]. The Lohapāsāda had a store house, bhandāgāra, attached to it [Paṭ. p.101].

To meet the requirements of monks who did not wish to live in the cities, but wished to devote their lives to meditation, monasteries were established in the forest.

Presumably they were not built on such an elaborate scale as those in the towns and were essentially simple in character. According to the Visuddhimagga such a dwelling had to be at least a five hundred bow lengths from a town, to be considered a forest residence, P.arañña senāsana, [Vsm.p.270]. These forest monasteries were known as 'tapovana' and some of them were glorious with the splendour of deva-mansions and were free from crowding, pleasant in their solitude, full of shade and water, clean, cool, delightful spots [Vsm.p.342].

The group of buildings known as the western monasteries at Anurādhapura, conform to the above description and according to A.M.Hocart were the residence of a sect of ascetic monks named pamsukulika, [A.S.C.Memoirs Vol.1 (1924) pp.44-47]. Most of these houses are built on rocks, and surrounded by a moat and are provided with beautiful ponds. The decorative sculptures in the lavatories attached to them, and the general conception of the structure is hardly in keeping with the rigid asceticism of forest-dwelling monks and to explain this incongruity Hocart says: "From the buildings and the richness of the food bestowed by the kings of this period upon the pamsukulika brethren, I am inclined to think that their life in the forest had lost much of its early asceticism and that, though still called 'dwellers in the forest', they nevertheless lived in substantial monasteries, their only hardship being that these were

situated in the depths of the forest, at some distance from the town." [Ibid, p.47].

Monastery Wall

Monasteries were enclosed by a wall, usually made of stones, and were provided with four gates. Both the Lohapāsāda and the Mahāvihāra were so provided with enclosing walls, and the Lohapāsāda was provided also with four gates, dvārakotṭhaka, [Smp.p.747, p.881]. The senāsana of even a single monk was surrounded by a wall (s. vātapuvura) according to the Sikhavalāṇḍavinisa [p.35]. The area included by the wall was called Vihāravatthu, [Smp.p.341]. Monks were forbidden to throw any refuse outside the wall or in anyway to pollute the area outside it, [Vsm. p. 343; Sikha. p. 7.] Inside the pākāra the cetiya, the bodhi tree and the dwelling houses for the monks would be arranged and sometimes the last consisted of a series of Kuti, [Mv. pp.33-39]. When there were larger buildings such as a pāsāda in a monastery, the smaller buildings would be grouped around it. Devānampiyatissa built for the use the Theri Saṅghamittā three pāsāda called Cūlagāna, Mahāgāna and Sirivaddha and twelve others of smaller dimensions as retinue-buildings, (parivāratthāya), [Mv.29.71].

Thus provided with a variety of structures of varying dimensions and proportions, some of the monasteries were considered as beautiful creations. The Abhayagiri Vihāra, as seen in the 10th century is described in a slab

Inscription of the reign of King Mahinda IV as displaying the grace of the abode of Srī, [E.Z.1. 225], and the same record describes the splendour of the Ratanamahāpāsāda as: "there rises in splendour the Ruan-maha-paha surrounded by the noble parivenas, like unto the gold Meru centred by the Kula-gal; where around the four fraternities is shed the effulgence of the shrine of the image of the Lord of sages, like the lustre of the Ruan-pav around the abodes of the four regent gods". In the Mahāvamsa the same building is compared to the vejayantapāsāda of the King of Gods, [Mv. 48. 135, 136].

Expenses

As regards the expenses incurred in the construction of monastic buildings, there is very little data in the literature consulted. Often round figures denoting gold coins are given in connection with specific buildings, but they do not seem to represent the actual expenses incurred. King Dutthagāmaṇī spent nineteen koṭis for nineteen vihāras, [Mv. 32. 36]. The Lohapāsāda cost him thirty koṭis, and the relic chamber of the Mahāthūpa 20 koṭis and the rest of the Mahāthūpa 1000 koṭis, [Vap. Comment on Mv. 32. p. 26]. Later on when the Lohapāsāda was repaired by Jetthatissa complete with seven stories, it was worth one koṭi, [Mv. 36. 124]. An unspecified number of Vihāras restored by Jetthatissa III [632-624 A.D.] cost him 300,000 kaḥāpānas, while King Mahinda II (787-807 A.D.) spent the same amount of money to restore

the Ratanamahāpāsāda, [Mv. 48. 135-136]. King Lañjatissa spent for unspecified work done at Cetiyaḡirivihāra a sum of 100,000 kaḡāpanas, [Mv. 33. 25].

Domestic Architecture

The Royal Palace

The King's palace (rājavatthu) at Anurādhapura was situated outside the Southern gate of the City, [Smp. p.99; Mv. 15.2], and was also surrounded by a wall, [Mv. 37-176]. As was usual in buildings surrounded by a wall, it can be presumed that there were four gates which are often mentioned, [Mv. 14.60]. At each entrance also was a maṇḡapa, [Mv.36.99] which may have been constructed as a watch house for guards. Details of the different types of building inside the palace wall are very scanty, but it must have consisted of pāsādas for the members of the royal family and other small dwellings such as Kuṭi for the servants employed therein. There was a special house to deposit the Tooth Relic, within the precincts of the Royal palace, [Mv. 37. 94, 95]. Other special buildings were also there which were in keeping with the pomp and splendour associated with Royalty. Sena III, for example, built a costly house for flowers (P. Mālāgeha) in the King's palace, [Mv. 53. ³35] and also there was in the palace a special chamber called the upavāsagabbha, which Geiger translates as a fasting house, [Mv. 36.84]. King Sirisaṅgabodhi when he heard of the distress in the country

on a certain occasion, "lay down with sorrowful heart alone in this chamber", [Mv. 36. 84]. Fasting is a part of the observances connected with the Eight Precepts of Buddhism and it may be that the Upavāsagabbha was set apart for the use of the King when he took upon himself the observance of the Eight Precepts. As measures of safety the palace was provided with dungeons, kārāgāra and underground tunnels, ummagga. When Kerala troops from South India threatened King Mahinda V for withholding payment to them, the King escaped to Rohana through an ummagga [Mv. 55.7] which may have probably led to a point outside the palace wall, so that anyone using the tunnel could escape unnoticed.

There was a pond, (P. sara) in the palace garden and there were geese there [Mv. 35.97].

The Pāli commentaries refer to three different kinds of palaces, to suit the three seasons, but it is not possible to say definitely whether such palaces were ever constructed in Ceylon, because the seasons cannot be differentiated in Ceylon owing to the evenness of the climate. According to these accounts the palace meant for the winter was provided with nine stories and woollen spreads were lavishly made available to promote warmth. The Paintings in this palace consisted mainly of blazing fires.

On the other hand the summer palace was five-storied and all spreads and coverlets were made of thin material. There were fountains and mechanical devices to produce

artificial thunder. The paintings consisted of aquatic flowers such as lotuses and lilies.

The palace meant to be used during the rainy season was seven storied. The bedspreads were made of wool and soft material. Paintings of blazing fires and artificial lakes adorned the walls, [Man. II. p.238]. However, in later times Sinhalese Kings set up special pleasure houses. Parākramabāhu I built such a pleasure house of three stories on an island in the Parākramasamudda, [Mv.68. 42].
The Common house.

In spite of the large tracts of archaeological ruins excavated at Anurādhapura and other ancient sites of Ceylon, so far no remains of a common house has been unearthed. The ruins which have been already excavated are all monastic buildings and their construction is either of stone or brick. Therefore we are compelled to resort to literary works in ascertaining the character of dwelling houses of the common people. The fact that no traces of such buildings have been found points to the possibility that they were not made of any durable material such as stone or brick, and the literary evidence shows that the common houses were made of wood and clay.

In the Visuddhimagga is the description of the house of the mother of a Thera called Mahānāga [Vsm. p. 706], where it is said that the materials required for building this house were grass, tina, bamboo, (venu) and wood,

(kattha). These three types of material together with clay are the only materials required to make a house of the humbler type even today. The grass would be used in thatching the roof, [Mv. 72. 210, and Sikhavi. 61] and the bamboo and clay would be used in making the kind of wall known as "wattle and daub", which is very common today. The doors and windows, rafters and beams would be made of wood. The popularity of the wattle and daub type of wall is also shown by the fact that all-clay (sabba-mattikāmaya) houses were not approved for use by monks [Smp. p. 289], lest a large number of creatures such as worms would be killed in the process of extracting clay for the purpose of building houses. Therefore monks were required to use "half-timber" (dabbasambhāra missaka) houses or houses made of bricks, [Smp. 289].

Because wood was available in plenty from the forests of Ceylon, wood must have been very largely used in the construction of houses for the common people. When trees were felled in the forest the trunks were hauled up to the road by elephants, where the wood was loaded into carts to be taken to the building site, [Sum Vil. p. 713, 714]. There was such a large demand for wood that when lands were granted to monasteries, specific rules had to be set up against the felling and removal of timber from forests belonging to the monasteries, [Badulla Pillar Ins. E.Z.III, p. 77].

The floor of the house was prepared by applying a layer of clay mixed with cow-dung (goma) and on auspicious occasions the floor was always so plastered afresh [Pad.p.409].

Parts of a house

Having discussed the main types of monastic and domestic dwellings, it would perhaps be desirable here to describe the different parts of a house whether monastic or domestic, in the light of the information gleaned from Sinhalese and Pāli Texts.

The Roof. The roof consisting of its framework and rafters was constructed of wood. But the thatching was done according to the type of building and the requirements of the owner. But the common ^{roof}thatching materials were [Pmvvs. p. 96] grass, tina; leaves, panna; tiles, itthaka; stone, silā; plaster, sudhā.

But well-known monastic buildings such as the Lohapāsāda and the Ratanamahāpāsāda were provided with copper and silver or, more probably, silverplated sheets as roofing. Buildings of a humbler type were thatched with tiles, stone or plaster. Stone, when used as thatching, evidently must have been cut into sheets. It is not quite clear how plaster was used in the roof, unless it was used as a thick coating over a wooden roofing. It is interesting to note that coconut leaves, the commonest thatching material used in the humbler houses in Ceylon today, were used for this purpose as early as the fifth century A.D. or perhaps even earlier, [Sam Vin. p.335].

The Mahāvamsa relates an interesting story about some hunters and robbers who were sent by King Parākramabāhu I to frighten the people of the city of Polonnaruva before he became King. The people were so frightened of these marauders, that they were afraid to get out of their homes and removed the thatching of grass from the houses of one another to keep their fires going. [Mv. 72. 210, 211]. Spires, (thūpikā) were fixed on the ridge at the two ends of a roof, [Mv. 44.133].

Windows. The terms used to indicate a window are: kavāta, gavakkha, vātapāna and sīhapañjara. It is not possible to be precise as to the size or shape of any one of these types of windows, owing to the paucity of data. The kavāta was probably a smaller type of window - because according to the Mahatthakathā a Kavāta was either $1\frac{1}{2}$, 2 or $2\frac{1}{2}$ hatthas (in length), [Smp. p. 783]. Therefore the term Kavāta probably was used as a general term for any kind of window or outlet for ventilation. This is shown in the development of the term P. kavāta, and the Sinhalese equivalent Kavulu is not necessarily a window, but may be a simple ventilator consisting of an opening.

The gavakkha was a more elaborate type of window and usually consisted of a pane of trellis work, [Smp. p. 94]. The term Vātapāna was also a simple window. Some windows of this type were called Uddhacchiddaka (Or Uddhacchika ?) and probably meant a simple window with two or three holes

above the main opening which would be closed at night.

The largest and most elaborate type of window was the *sīhapañjara* which Dr. A. K. Coomaraswamy describes as a "balcony or bay window, perhaps a French window opening down to the floor level, [Eastern Art, Vol. III, p. 196]. That the *Sīhapañjara* was a large window is shown by the phrase *sīhapañjaracakkūhi cakkhumā* [Vap. p. 502] where the *sīhapañjara* is considered as being capable of providing a good view to one who looks through it. In the *Dhampiyā atvāgātapadaya* [p. 114] the term is used in conjunction with *dvāra* as *sīhapañjaradvāra* showing that this was considered as a door and confirming also perhaps Coomaraswamy's conclusions. The *Sārattha dīpanī* of *Sāriputta* explains the prefix *sīha* in *sīhapañjara* as having the sense of "chief". Therefore the *sīhapañjara* must have been the chief or one of the chief windows of a mansion.

Doors. Doors were of different types depending on the way they were constructed. In the religious buildings of *Anurādhapura* the door frames are made of stone where the foundations are also of stone. But in ordinary houses the doors must have been completely made of wood. The *Samantapāsādikā* [p. 281] gives a list of seven kinds of doors, which are suited to the different kinds of

buildings.¹

The seven types of doors are as follows:-

1. A door made of materials such as bamboo boards, wooden boards, reeds or leaves, and provided with a threshold P. udukkhala and upper lintel P.uttarapāsaka. This door is constructed in such a way as to revolve on a shaft with which it is fixed on to the upper lintel and the threshold, [I.H.Q. p.238].
2. doors provided with a bolt made of the trunk of a tree, P. rukkhasūcikaṇṭaka, as in the enclosure of cattle and other animals.
3. doors provided with a disc on which it turned, as in the case of gates of a village.
4. doors known as P. samsarana-kitikadvāra. The term P. kitika is obscure. The Pali Dictionary (P.T.S.) explains it as a verandah. But in this particular

¹kīdisam pana dvāram samvaritabbam kīdisam na samvaritabbam. rukkhapadara-venupadarakilañjapannādīnam yena kenaci kavātam katvā hetthā udukkhale upari uttarapāsake ca pavesetvā katam parivattaka-dvāram eva samvaritabbam. aññam gorūpanam vajesu viya rukkhasūci-kaṇṭakadvāram, gāme gāmatthakanakam cakkalayuttadvāram, phalakesu vā kitikāsu vā dve tīni cakkalakāni yojetvā katam samsaranakitikadvāram āpanesu viya katam ugghatanakitika-dvāram; dvīsu tīsu thānesu venu-salākā gopphetvā pannakutīsu katam salākahatthakadvāram, dussasānidvārāni evārūpam dvāram na samvaritabbam. [Smp. 281].

context it appears to mean some material of which a door could be made, because its significance should be similar to that of the term phalakesu. Sk. kṛtti means skin, hide, birch-bark. But it is doubtful whether the Pāli kitikā can be derived from Sk. kṛtti, because then the Pāli form should be kittikā. This type of door was provided with two or three discs on which the door turned.

5. This type of door P. ugghaṭanakitika-dvāra, seems to be a type of door which had to be fixed on to the door posts as occasion demanded, as in the case of the doors in shops.
6. doors made of bamboo boards, as in the case of huts. These doors appear to have been simply made with bamboos split into two and tied together to form a door.
7. doors made of canvas made of hemp.

Locks and Keys

A variety of devices to secure doors to their door posts seems to have been used in ancient times both in India and in Ceylon. These devices are referred to in the Pāli canon as well as in the Pāli aṭṭhakathas, which though not fully explaining how the mechanisms worked, help us to get an idea of the principles on which they worked. Tenth century inscriptions in Ceylon also refer to caskets filled with locks.

The different devices and components mentioned in the Pāli Canon and in the Pāli Atthakathās are as follows:-¹

aggala-vatti

kapisīsa

kuñcikamuddikā

ghatika

tāla

sūciyantaka

The precise function of these devices is not quite clear from the details available in the texts.

¹

sace koci āgantuko kuñcikam vā deti, dvāraṃ vā vivaranti yattakam cora haranti sabbam tassa gīvā. saṅghena vā ganena vā bhandāgārāguttatthāya sūciyantakāñca kuñcikamuddikā ca yoyetvā dinnā hoti bhandāgārāgiko ghatikamatham datvā nipajjati, corā vivaritvā parikkhāraṃ haranti tasseeva gīvā. sūcikayantakāñca kuñcika-muddikāñca yojetvā nipannaṃ pana etam sace corā āgantvā vivarāti vadanti, tattha purīmanayeneva paṭipajjitabbam : Smp. 356. anujānāmi bhikkhave aggalavattim kapisīsakam sūcikam ghatikanti. tena kho pana samāyena bhikkhū na sakkonti kavātam apāpuritum. bhagavato etam attham ārocesum. anujānāmi bhikkhave tālacchiddam tīṇi tālāni lohataḷam katthataḷam visānataḷanti. Ye pi te ugghātetvā pavisaṃti viharā aguttā honti. bhagavato etam attham ārocesum. anujānāmi bhikkhave yantakam sūcikanti, [Civ. p. 148].

It is difficult to ascertain whether the Kapisīsa operated in a different way from the aggalavatti, because both these devices are described as fixed on to the door post, P. dvārabāha, and as being fitted with pins which trap the bolt, when the door is closed.¹ Thus whether aggalatthamba and aggalapāsaka, mentioned in the passages quoted are one and the same cannot be ascertained, though in the passage from the Cullavagga quoted earlier these two seem to be two different devices. Perhaps the kapisīsaka was a more improved device than the aggalavatti.

The ghatikā mentioned in the Smp. p. 356, seems to be a kind of simple bolt which when used to close a door still permits people to open it from outside. The device called P. tāla appears to be a lever, which was put through a hole in the door post. It was made of metal, wood or horn. But it appears to have been made in such a simple fashion as to enable anybody to make one such lever, and therewith open any door.

The two terms P. Sūciyantaka and kuñcikamuddikā would appear to indicate the most complex of the locking devices used at the time. The former probably was a lock employing pins as in the kapisīsaka but of a more complex design as

¹ aggalavatti nāma dvārabāhāye samappamāno yeva aggalatthambo vuccati yattha tīni cattāri chiddāni katvā sūciyo denti kapisīsakam nāma dvārabāham vijjhitvā tattha pavesito aggala-pāsako vuccati. sūciti tattha majjhe chiddam katvā pavesita. Vinaya Texts, Pt. III, p. 106.

is indicated by the term yanta, and the latter seems to be a key of a similarly advanced type. The Visuddhimagga refers to the case of a kuñcika, P. kuñcikaḥosa and compares the shape of the cuticle of a finger, P. haṭṭhaṅgulittaca to that of a key case, [Vsm. 251].

From the details we have considered it appears that the type of lock used in India and Ceylon was similar at least in principle, to the locks used in most countries in ancient times and in less advanced countries even today.¹

The simplest form of locking device used in Ceylon in the present day consists of a cross bar placed behind the door and inserted into a staple fixed on each door post, but it has the disadvantage that it can only be operated from inside the house. But this type was improved by the addition of pins P. sūci inserted in vertical holes in the staple or P. kapisīsaka. A rudimentary key was used to operate this type of lock. Locks based on this principle have been used in different parts of the world ranging from Scandinavia to Egypt.² Pitt-Rivers has illustrated a similar lock from India, where three pins are used in a box that may be identified with aggalavatti or the kapisīsaka. The key of this lock is a rod bent somewhere near the middle and it is used to raise the pins when the door has to be opened.³

¹Pitt-Rivers, On the Development and Distribution of Locks and Keys. Plate II, Figs. 10B, 11B and 12B.

²ibid, p. 7.

³ibid. Plate III, Figs. 13B and 14B.

It is a modern lock and is described by Pitt-Rivers as a pin-lock, in other words a Sūci-yantaka.¹

¹The development of the lock and the key as explained by Pitt-Rivers is helpful in understanding the passages from Pali already quoted. Relevant portions from Pitt-Rivers are given below with my own comments in brackets.

The common door bolt having continued to be available as an inside fastening, in addition to more complex contrivances for securing doors, has continued to be universally employed up to the present time, and may be compared in nature to those fossil species, which, having never become unsuited to their environment, have survived throughout successive geological periods.

The two great desiderata in the stage of the lock that we are now considering were security and rapidity, both of which must have forced themselves on the notice of the primeval householder each time he crossed the threshold of his door. The first idea which suggested itself was to put a bolt (i.e. P.aggala) in a box (P. aggalavatti or kapisisaka) so that one could get at it to lift the tumbler (P. sūci) without a key especially adapted to enter the box and raise it (P. tāla ?), but as long as only one tumbler was used it must have been very easy to pick such a lock by raising the tumbler with any sharp-pointed instrument that might be introduced into the hole, (P. tālacchiddam. ye pi te ugghāṭetvā pavisanti viharā aguttā honti). By using two tumblers (tini cattāri chiddān katvā sūciyo denti), it would be impossible to raise them both at once, except by a key constructed with projections or teeth to fit into the notches or holes in the tumblers, which teeth must necessarily be at the same distance apart as notches, and as the tumblers were hidden in the box, no one unacquainted with the contrivance (sūci-yantaka ?) could make a key to fit the lock, which by this means afforded to some extent the security that was requisite, (p.7.).

In the passage from Smp. 356. it is interesting to note that when the sūciyantaka and the kuñcika-muddika were used to lock the doors, the thieves could not open the door themselves, but had to shout to the inmates "Open the door".

Kitchen & Fireplace. The fireplace was made of three firebricks, Jotipāsāna over which the vessel was placed. Firewood was burnt to produce a smokeless charcoal, [Sum Vil. p. 965]. The fireplace used in Ceylon today conforms exactly to this description, the only difference being that the fire is not always reduced to a smokeless condition.

Sanitation and Water. There were separate urinaries (S. Suludiyavatan) and lavatories (S. piyavige) [Sikha.p.5.] The lavatories were of two types: one with a pit (S.pup vala) [Sikha p.5] and in the other a pan like declivity was made in the stone slab which was used as the paving stone of the lavatory. Water was used to flush the basin. Lavatories of this type are yet to be seen in the group of ruins at Anurādhapura, known as the Western monasteries, [Memoirs, A.S.C. Vol. I, plate 37, Tapovana Group H, and plate 39]. It is this type of lavatory that is referred to in the Sumangata Vilāsini, p. 597.

In the compounds of monastic buildings water was drained out by means of pipes, Jalaniggamanāli, [Mv.36.p.78]. At the entrance of large monasteries, there was a pavilion where water was kept so that these monks entering the monastery could wash their feet before entering. Sometimes the pavilion was two storied, [Fragmentary Pillar Ins. of the time of Mahinda IV, E.Z.III, 227]. In small monasteries, as is done even today, a large pot of water was placed at the door.

CHAPTER VIII

THE VILLAGE.

The village was sometimes surrounded by a brick wall or a fence of thorny branches, P. Kantakasākhā and sometimes not, [Smp. 298, 300]. When the village was surrounded by a wall or fence it was usually provided with at least two entrances, [Vsm. 72]. The wall or fence provided protection from robbers and wild animals, and also seems to have been regarded as a legal boundary.¹ These boundaries seem to have been fixed by the state. For instance, King Pandukābhaya is stated to have set up boundaries for all the villages in Ceylon at the time, [Mv. 10.103].

Like the village, a house too was sometimes enclosed in a fence and exit and entrance were provided through a gate consisting of two vertical posts placed apart, across which poles were placed horizontally through holes made in the two poles [Smp. 300]. This type of gate was known as a P. sūcidvāra.

The streets in a village were not well made and consequently on rainy days people are said to have sunk in the mud up to their knees and during hot weather the roads are said to have been dusty, [Vsm. 343].

It is not possible to ascertain the size of villages

¹Smp. 300, tatra parikkittassa parikkhepo yeva paricchedo.

that existed in ancient Ceylon, but villages of a hundred families and of thirty-two families are mentioned, [Vsm. 246; Pap. V. 33]. As was mentioned earlier sometimes villages contained only people of one profession or trade. Villages of candālas, [Vsm. 650], of potters, kumbhakāra [Vsm. 91], of Smiths, [E.Z.IV.222], of temple attendants (ārāmika) [Mv. 52-26], and of carpenters (vaddhakī) [Vap. 606] are often referred to the commentaries and other works of the period.

There was a wall around the city of Anurādhapura and the wall that was built around the city by King Kuṭakannatissa was seven hattha in height. He also constructed a moat (parikhā) around the city, [Mv. 34.33]. In later times the wall was raised in height to secure greater safety for the city, [Mv. 35.96]. As the ruins of this wall show, the city wall was built of stone and was covered with a coat of plaster, as in later times, [Mv. 60.3].

The Village and the City.

Though there are no details about the structures set up on the city wall of Anurādhapura it is said that Vijayabāhu I built a city wall around Polonnaruwa, provided with gate-towers (nekagopurasamyuttam), [Mv. 60.3]. In the city there were four gateways, P. dvāra, at the four cardinal points. The King's palace was situated at the South gate, [Smp. 99; Mv. 38.9] and so was the park called Nandana, [Mv. 15.2.].

A term that occurs repeatedly in the accounts of towns and villages given in the Pāli Aṭṭhakathās and other works is the word indakhīla, [Vsm. p. 72; Smp. 299]. A town or village is said to have two, or one indakhīla at the gateway, though there were towns and villages which had no indakhīla at all.¹ Where there were two indakhīlas one seems to have been behind the gateway and inside the village and one evidently outside the gateway, and where there was only one, it was placed in the centre of the gateway, between the gate posts.

Thus the indakhīla in a town or village would appear to have been a post situated either behind the gateway or in front of it. There is no evidence to show what purpose the indakhīla served. Possibly it served as an obstruction placed in the centre of the gateway so that it could impede any sudden attempt made by any hostile force to enter the city. Two such impediments would have proved the more effective in preventing an invasion.²

¹Indakhīle thitassāti yassa gāmassa Anurādhapurassa 'eva dve indakhīlā. Tassa abbhantarime indakhīle thitassa, tassa hi bāhiro indakhīlo abhidhammikanayena araññasamākkhepaṃ gacchati. yassa pana eko tassa gāmadvārabāhānaṃ vemajjhe thitassa, yatrāpi hi indakhīlo n'atthi, tatra gāmadvārabāhānaṃ vemajjhamēva indakhīloti vuccati, tena vuttam gāmadvārabāhānaṃ vemajjhe thitassāti. [Smp. 299].

²In some prehistoric forts, there are banks of earth placed in front of the entrances in such a way as to prevent easy entry. Such banks are to be seen at the fortress of Maiden Castle, [A.H. Allcroft, Earthwork of England, pp. 99, 101].

Anurādhapura, according to the passage quoted from the Smp. had two indakhīla. Whether there were two indakhīla at each of the four gateways is, however, not stated.

Inside the city the main street known as maṅgul mahā veyā, P. maṅgalamahāvīlhi, ran north and south to meet the northern and southern gateways.¹ There were other minor streets and the name of one such street has been preserved for us. The street of fishermen, (kevaṭṭavīthi) was somewhere near the Southern gate of the City, [Pap.I.272]. This shows that at least some of the streets were set apart for the different castes in the city of Anurādhapura. Survivals of such street names are not unknown today: in Colombo there are two streets known as Baḍal vīdiya, Goldsmiths' street, and Hettivīdiya, Merchants' Street.

The Cetiyaṭṭabbata mountain also was surrounded on the four sides by a road and there were four gateways giving access to the sacred mountain, [Mv. 34. 75-77].

Parks and Ponds

Among public amenities that graced the City of Anurādhapura from very early times were the parks, ārāma. Ārāma, according to the Samantapāsādikā were two-fold; flower gardens, pupphārāma and fruit gardens, phalārāma, [Smp. 337]. These were artificially made. But some of the parks seem to have been developed from natural forests,

¹Slab Ins. of Kassapa V, E.Z.1.43.

amidst which the early settlers established their villages. It is significant that the Mahāmegha park is described as Mahāmeghavanuyyāna, [Mv.15 - 9] and Mahāmeghavana [Mv. 15.24; Smp. 99]. But at times it is called Tissārāma [Mv. 15.214]. But it would appear that generally the term vana or vanuyyāna indicated a park of large dimensions and that the term ārāma meant something of smaller dimensions. Mention is made of numerous unnamed ārāma in the chronicles and the Sinhalese inscriptions [Mv.52.19; E.Z.III, 76]. The term uyyāna was also used in the sense of park and the Ranmāsi Uyana which has been identified shows that it is of small proportions and was probably not intended to be used as a public park.

Some of the earliest parks made in Ceylon were the Mahānāga park at Mahīyaṅga, and the Mahāmeghavana and the Nandanavana at Anurādhapura. The Mahānāgavana was situated on the bank of the River Mahavāli and was three yojamas long and one yojana wide, [Mv. 1.22, 23].

The dimensions of the Mahāmeghavana are not mentioned but the Commentaries state ^{that} it was situated outside the Southern Gate of the City of Anurādhapura, [Smp. 99]. As the royal palace also was situated at the Southern Gate, it was probably set up partly for the use of the royal family. That it extended up to the eastern gateway of the city is shown by a statement of the Mahāvamsa which says

that on a certain occasion King Devānampiyatissa led the Thera Mahinda to the Mahāmeghavana at the east gate, [Mv. 15. 11, 12]. It was considered as suitable a place for the residence of monks as were the Jetavanārāma and the Veluvana in India, and it was provided with ample shade and ponds and pools and was altogether a pleasant place, [Mv. 15.9]

The Nandanavana was also situated outside the Southern gate and was situated in the King's Park (rājuyyāna), [Mv. 15.2]. The rājuyyāna mentioned here is the Mahāmeghavana and therefore the Nandana formed a part of the Mahāmeghavana or was an extension of the Mahameghavana. It extended round the west side of the wall, [Mv. 15. 11, 12].

Ārāmas or small groves were also set up by Kings in ancient Ceylon in different parts of the Kingdom, and various fruit trees and flowering trees were grown in them. Some of these were confined only to one kind of tree, as when King Aggabodhi I planted a grove of coconuts, nālikerārāma, three yojana in length, [Mv. 42.15].

An important Royal Garden set up at Anurādhapura was the ranmāsi uyana or Gold Fish Park, [Vessagiriya Ins. of Sena II, E.Z.1. 36]. This has been excavated and identified. Its main features are baths, dressing rooms and stone seats where the members of the royal family could bathe and enjoy the sunshine. Remains also have been found there of pavilions from where they could perhaps watch dancing or performances of music.

Natural forests were allocated to monasteries as sources of timber for the maintenance of monastic buildings and when such forest land was dedicated to temples, special instructions were laid down to prohibit the felling of timber by government officials, [Badulla Pillar Ins., E.Z.III. p.77].

In ancient Ceylon adequate supplies of water were made available to the people both for drinking and washing. The main reservoirs of water were the tanks P. Vāpi, S. Vāv. These tanks were usually constructed by damming a river, P. bandhati, [Mv. 51. 73]. The dam was known as P. marīyādā, [Mv.51-72]. At different points in the dam water was let out through an outlet, P. toyaniddhamana, into a canal, P. māti, [Mv. 34.32] or P. āli, S. adi [E.Z.III.p.154] and this water was directed to fields situated along the canal. When water in the tank exceeded its capacity - water escaped over a spill known as P. Vāripāta or Jalasampāta [Mv. 68. 37].

To provide water for people living in the towns, various kinds of ponds were dug and water was supplied to these ponds through underground canals, P. Ummagga [Mv.35.98] connected to the tanks. Water was also carried to ponds by means of clay pipes, and specimens of such pipes have been discovered at different places in Anurādhapura, [A.S.C. Memoirs, Vol. III, pl. XI].

There were also ponds, which depended on local springs for their water and such ponds were usually enlarged water-holes on rock. One such pond which was constructed by King Devānampiyatissa for the use of the Arahant Mahinda and his followers was the pond known as Nāgacatukka, [Mv.16. 6]. But as the source of water in this tank was not perennial, a later king is said to have provided a permanent supply of water at this pond, [Mv. 42:28].

Ponds were also constructed for the purpose of making cities and towns beautiful and we hear of a number of such pokkharani being constructed by different kings in different parts of the city of Anurādhapura. There was for example a small tank P.Khuddikā vāpi in the royal park at Anurādhapura, [Mv. 15.52], and another beautiful pond, P. Cārupokkharani to the north of the royal palace, [Mv.15.30]. In the park attached to the Issarasamanarama, at Anurādhapura was a park known as "Gold Fish Park", S. Ran māsi pokuna, [E.Z. 1. 36], and as S.ran māsi means gold fish, it is possible that the park took its name from a pond in which gold fish were reared.

There is evidence to show that (at Anurādhapura) there were hot water baths which provided hot water for bathing. These special ponds were known as P. Jantāgharapokkharani, [Mv. 5. 31]. The Mahāvagga, [Clv. 5.14] refers to P. Jantā-ghara, where monks could bathe in warm water, but it is difficult to understand why warm water should have been

needed for bathing in Ceylon where the climate is warm throughout the year, particularly in those parts of the island where the ancient towns and cities were situated. Probably these ponds were constructed to meet the needs of the sick, who were not permitted to bathe in cold water. For purposes of bathing sometimes, people, particularly Buddhist monks, set up an enclosure in a river or a tank so that they could make use of this enclosure exclusively, [Sikhaṇḍa 5] and such an enclosure was known as S. Nahanatotā.

Wells (P. Udapāna) were also dug for obtaining drinking water, [Mv. 42.66]. They were constructed by lining walls of the pit with circular bands of earthen ware, laid one above the other. Bigger wells were square in shape and the surface of the walls were lined with semi-dressed blocks of stone staggered in such a way as to form a series of steps along which people could get down to the level of the water, [A.S.C. Memoirs, III, plate XXI].

The description of the building of Anuradhapura by King Paṇḍukābhaya as given in the Mahāvamsa and Dīpa Vamsa provide sufficient evidence to show that there was at least an elementary system of town planning. The system, though attributed to the time of King Paṇḍukābhaya was more probably the system current in the fourth and the fifth century A.D. when the Chronicles were being compiled.

According to this account, [Mv.10.89.102] the king "laid out four suburbs as well as the Abhaya tank, the Common Cemetery, the place of execution, and the chapel of the Queens of the West, the banyan tree of Vessavana and the Palmyra palm of the Demon of the Maladies, the ground set apart for the Yonas and the house of the Great Sacrifice; all these he laid out near the west gate."

To the north west of the cemetery he built a village specially to segregate the people who cleaned the city. Elsewhere he built villages for ascetics, huntsmen and for religious groups such as the Ājīvikas and the Brahmins.

From this account and other evidence adduced above in the chapter on the social position of craftsmen, it appears that the arrangement of towns in ancient Ceylon was not determined by considerations such as suitability of land, sanitation, availability of water, so much as by social and religious requirements.

Irrigation Works.

Agriculture has been the main occupation of the people of Ceylon from the earliest times, and as the cultivation of rice needs large quantities of water made available at regular periods, cultivators could not depend on natural rainfall to provide the water required. It was to meet this need for regular supplies of water which could not be otherwise obtained that the method of retaining the water of rivers by making dams across rivers was devised.

A reservoir of water thus constructed was called P. vāpi, S. Vāv or P. taṭa, [Mv.42. 29]. Construction of tanks and other irrigation works are mentioned in the early literary works and inscriptions. The earliest such reservoir built in Ceylon was the Abhayavāpi, constructed by King Paṇḍukābhaya at Anurādhapura. Later rulers such as Devānampiyātissa, Duṭṭhagāmaṇi, Bhātikābhaya were instrumental in constructing a large number of tanks. King Mahāsena, who constructed perhaps the largest tank at the time, the Mahihīravāpi, is considered to have been responsible for constructing the largest and most effective irrigation system in the island during the Anurādhapura period.

A tank was constructed by building a dam, P. bandhanam, [Mv.42.34] across a river so that the water would be collected in one place. Then the water would be let out as required along canals, P. āli, māti and directed to fields that needed to be irrigated. The device which let out water from a tank was called P. toyaniddhamana, niddhamanatumba and S. sorovva, or mola [Dhampiyāṭuvā.131]. The inlet of a tank which admitted water from a river or through a canal was called āyamukha, [Man.III, 157]. A spill was constructed on the dam of a tank to let out any excess of water which might endanger the dam, [Mv.48.148]. Such a spill was called P. Vārisampāta, Jalasampāta or

Vāripāta, [Mv. 48, 148; 68. 37]. The capacity of a tank was measured in terms of the area it could provide with water and a tank that could irrigate a thousand P.Karīsa of land would be called P. saḥassakarīsa vāpi, [Mv.35.68].

CHAPTER IX

FORTIFICATIONS

When the early Indian immigrants arrived in Ceylon, their attempt to occupy the island was opposed by the local population. Though a large portion of the story of this occupation given in the MV. has to be regarded as legendary, the conflict between the invaders and the local population emerges as a fact out of this confused mass of information. This conflict seems to have continued up to the time of King Pandukābhaya, who was the first to consolidate his power over the country and who was able to devote himself to the task of constructive work. It is not possible from the literature dealing with this period to ascertain the nature of the fortifications used by the invaders or the local population. But there is evidence to show that attempts were made to use the natural features of the country as much as was possible for defensive purposes. Material for structural fortifications must have necessarily been scarce or not available, as the invaders had scarcely the time or the knowledge of the country and its resources to undertake such comparatively large-scale projects.

When King Pandukābhaya waged war against his uncles, he made use of the local mountains as strongholds. The

Dolapabbata and the Dhūmarakkhapabbata were both fortified by him, [Mv. 10. 44, 46].

The first mention of a fort occurs in connection with the war between King Duṭṭhagāmaṇī and the Tamil ruler Elāra who at the time occupied the whole of the central part of Ceylon, including Anurādhapura and also parts of the Southern country excepting the territory that belonged to the King of Mahāgāma on the southern coast. When Duṭṭhagāmaṇī set out from Mahāgāma to wage war against the Tamils, he had to pass through seven outposts manned by Tamil garrisons, [Mv. 22, 10], and also another series of fifteen garrisons commanded by well known soldiers, [Mv. 22, 10-15]. Whether there were any structural fortifications at these places it is not possible to ascertain from the meagre information available in the Mv.

But the Chronicle is more helpful when it describes the last and perhaps the most reliable stronghold of the Tamils - the fortified city called Vijitanagara, [Mv. 25, 24 - 46].

According to this Chronicle, the fort was surrounded by a wall, 18 cubits (atṭhārasahattha) in height and its length was 8 usabhas. The Commentary to the Mv. says that it was surrounded by three moats (P. tiparikham) one of which was filled with mud, (P. Kaddamaparikhā), [Vap. 476].

There were evidently four gates, though only the south gate

[Mv. 25, 24] and the east gate [Mv. 25, 25] are mentioned. Gopuras were set up over each gateway. The gates were probably made of wood reinforced by iron (P. ayokammakata), though Geiger translates the phrase "gates of wrought iron", [Mv. 25-28]. The materials used in these structures, were stone, P. silā, plaster, P. sudhā and brick, itṭhaka. The gate plates were hinged onto doorposts, P. dvārabāha [Mv. 25, 38] which were provided with thresholds, ummāra, [Mv. 25, 38].

Yet another fort is mentioned in the Mv. in connection with the campaigns of Duṭṭhagāmaṇī, for we are told that after he subdued Vijitanagara he marched on another Tamil fort called Mahelanagara, [Mv. 25, 48]. This fortified town too was surrounded by three walls and an undergrowth of Kadamba plants (Nauclea Cadamba), but had only one gate.

Though the Sīgiriya fortress is one of the most impressive and colossal structures to be seen in Ceylon, it receives only scanty mention in the Mv. Referring to its construction the Chronicle says that King Kassapa through fear of his brother surrounded the Sīgiriya rock with a wall and built a staircase up to the top of the rock, [Mv. 39, 2-4].

When the capital of Ceylon was removed to Pulatthinagara, this latter city too was surrounded by a wall and on occasions when threatened by enemies, the defenders of the city fought

from gate towers (P. gopura) and towers, (P. attāla),
[Mv. 58. 53].

Though the information regarding fortified buildings found in the chronicles is scanty the remains of the Sīgiriya fortress are helpful in reconstructing the normal type of fortification as constructed in ancient Ceylon. This fortress was constructed in the 5th Century A.D. by King Kassapa. The Sīgiriya fortress is described by Dr. Paranavitāna as follows:

"To the east as well as to the west of the Sīgiriya rock, rectangular areas had been enclosed by ramparts and moats, the base of the rock itself serving as the defence on one side. The ramparts on the western side, still standing to an average height of 30 ft. extend on three sides to a distance of over one and a half miles. The masonry wall, for which the ramparts of earthwork served as the base, crumpled down centuries ago and the broad moat which bordered it on the outside has been largely silted in. The moat is surpassed by few works of its kind elsewhere; its depth is about 14 ft. and is 72 ft. broad at the bottom and 82 ft. at the top. Its sides had been faced with blocks of granite right through its length, the outer side so as to form two terraces. An outerwall of brick extends right along the western side, parallel to the moat, and for some distance on the northern and southern sides.

Two gateways pierced the walls, one on the northern and the other on the southern side. In the middle of the western rampart was another entrance through a drawbridge. In the area so strongly fortified, covering over 100 acres in extent, there are the remains of five pavilions, each of which was surrounded by moats, and of buildings attached to them. The greater part of the ground within the walls on the western side does not appear to have been built upon; it was most probably laid out as a pleasure garden. A number of ponds were located within the walls.

In the area where the level ground meets the foot of the rock are numerous boulders of picturesque appearance, amongst which are over twenty caves. Grooves cut on these boulders to hold brick masonry indicate that they served as the bases for edifices, the nature of which we have no means to determine. A splendid throne has been fashioned from one boulder, and another contains a cistern.

Two flights of stone steps starting from the areas of these boulders converge at the point on the middle of the western face of the rock where it rises perpendicularly above the sloping ground at the base. A concavity runs for some 160 yards on the face of the rock at an average height of 50 ft. above the ground, and along this has been constructed a gallery with a parapet wall, still preserved with its glasslike lime plaster. The gallery meets the slope of the ground after it turns the north-western corner of the rock and a steep flight of steps based on the firm ground leads one to a plateau on the northern side, [J.R.A.S.C.B. Vol. I, (New Series), pp. 129-130].

Thus it can be seen that the fortified cities of Ceylon were built on substantially the same lines as those of ancient India. The main features of these types of fortification were the ramparts, the moat, the gateways and the structures over the gateways and on the walls constructed at regular intervals.

In fortified towns in India, over the gateway were the *aṭṭāla* and the *sīmāgrha*, both consisting of a number of stories. [Eastern Art, Vol. II, 1930, p. 214]. It would appear that these features were preserved in the fortresses in Ceylon such as that at Vijitanagara and at Sīgiriya. The fortress of Vijitanagara had gopuras. [Mv. 25.30], and a fortress constructed by Vijaya bāhu I in the 11th century had both gopuras and *aṭṭalas*, [Mv. 58.53].

The atta, according to the Samantapāsādikā was a storied structure built for the purpose of warding off hostile kings and others. It was made of brick and had thick walls, [Smp. 654].¹

That fortified buildings in ancient Ceylon too were constructed of stones, bricks and plaster is confirmed in the statement of the Mv. that when the elephant of Duṭṭhagamanī attacked the gate of Vijitanagara - it had to batter its way through stones, mortar and bricks, [Mv. 25, 29]. Wood also was used in these structures, particularly in the upper parts, as brick and mortar and stone would be prohibitive because of their weight. When the elephant attacked the gateway, a heap of wood (dabbasambhāra) fell on him, [Mv. 25, 39].

¹ atto, paṭirājādīnam paṭibāhattham itṭhakāhi kato bahala bhittiko catupañca-bhūmako patissayaviseso, Smp. 654.

CHAPTER X

COINS AND SEALS

Coins used in Ceylon in the Anurādhapura period were made of various kinds of metals, the coins of the higher values being generally made of metals such as gold and silver. The standard unit of currency was the Kahāpana and this coin according to the Samanta-pāsādikā is classified as follows, [Smp. 689]:- 1. suvaṇṇa-kahāpana, gold kahāpana, 2. rajata-kahāpana, silver kahāpana and 3. pākātika-kahāpana. The pākātika kahāpana was not a coin artificially made, but must have been some article such as a conch-shell or seed used as a unit of currency, [Smp. 690].

The kahāpana was decorated with designs (P. citta visitta), oblong, square or circular in shape, (P. dīgha-caturassamaṇḍala) and was sometimes used as a piece of jewellery (P. upabhoga-paribhogaratanasammata), [Pap. 344].

After the kahāpana come the pāda, the māsa and the kakanika. According to the Samantapāsādikā, five māsakas make one pāda and four pāda make one kahāpana.

This was the rate of calculation obtaining in Ceylon in the early period, at least in judging offences committed by monks in accepting gold and money, for this was the rate of calculation existing in Rājagaha in the time of King

Bimbisāra, [Smp. p. 297]. It is not possible to ascertain of what metal the pāda was made, but in the Sikhavi, we are told that it was the equivalent of gold weighing eight māṇḍata, [Sikhavi, 18], one māṇḍata being equal to four paddy seeds.

The māsaaka was made of metal (P. loha) or of non-metallic substances P. dārumāsaka. The first variety was made of metals such as copper P. tamba. The non-metallic māsaaka was made of hard wood, P. Sāradāru, bits of bamboo, P. Velupesikā or even olā leaf P. tālapanna. To this class of coins belonged also the māsaaka made of lac P. lākhā or some resinous substance P. niyyāsa. In all these coins figures and legends were either incised or embossed, [Smp. 689, 690].

There were also coins made of bones P. atthimaya, and of leather, P. Cammamaya, in addition to those made of fruit shells and seeds, P. rukkhaphalabījamaya, [Smp. 690]. It is interesting to note that coins made of leather and wood were used in the ancient world, by peoples such as the Spartans, the Carthaginians and the Romans, [F.W.Madden, Coins of the Jews. p. 23].

Before the discussion of the different kinds of coins is concluded attention should be drawn to an important but obscure

passage in the PāpancaSūdanī¹ which enumerates three unusual types of kahāpanas. The passage relates the story of people, who while serving the King, obtained from a small village small amounts of tax in the form of:

macchabhāga, a portion of fish

māmsabhāga, a portion of meat

yottakahāpana,

andukahāpana,

māsakahāpana,

atthakahāpana, eight kahāpanas

solasakahāpana, sixteen kahāpanas

battimsakahāpana, thirty two kahāpanas

In this list what appears obscure are the three terms P. yottakahāpana and andukahāpana and māsakahāpana. From the order of enumeration it would appear that the three coins yottakahāpana, andukahāpana and māsakahāpana were smaller in value than the atthakahāpana, eight kahāpanas, which comes next to māsakahāpana. Further, as battimsa, thirty two, is

¹ Pañca kina dubbalabhojakā rājānam sevitvā kicchena kasirena ekasmim pañcakulike gāme parittakam āyam labhimsu. Tesam tattha macchabhāgo mamsabhāgo yottakahāpano, andukahāpano, māsakahāpano, atthakahāpano vā solasakahāpano vā, battimsakahāpano vā Catusatthikahāpano vā dādo ti ettakamattam eva pāpunāti. Satavatthukam sahasavatthukam mahābalim rājā vā ganhāti. [Pap. II. 349]

twice solasa, sixteen, which in itself is twice atṭha - eight, it is possible that the term māśakahāpana represents a coin worth half of atṭhakahāpana, namely four kahāpanas.

Similarly the andukahāpana would be a coin worth two kahāpanas and yottakahāpana a coin worth only one kahāpana.

It is indeed, not possible for anyone to be certain that the values attributed above to these coins are correct, but that the coins are given in order of value is incontestable.

It is possible that the terms yotta, andu and māsa are prefixed to the word kahāpana not necessarily to different values, but to indicate three different types of kahāpana. Furthermore, only coins having values of one kahāpana, half kahāpana and quarter kahāpana have been so far found, [J.Allan, Catalogue of Indian Coins, Ancient India, p. CLXI] and no other evidence is available to show the existence in ancient Ceylon or in ancient India of kahāpanas of higher denominations.

Taking into consideration the sense of the three prefixes P. yotta, (rope) andu (chain) and māsa, (bean) it is difficult to imagine that they indicate the material of which the coins were made. The word māsa is also the name of a particular weight of gold, and also the name of a coin whose value is only one twentieth of that of a kahāpana.

A common way of distinguishing coins is to refer to the symbols represented on the coins. For example coins having the nandipada symbol and the representation of a turtle

(P. Kacchapa) are called nandipada and Kacchapa respectively. Thus if we examine these three terms, with this possibility in mind, we may perhaps get some insight into the significance of the three terms yotta, andu and māsa.

We have already seen that the Pāli terms yotta and andu mean rope and chain respectively. In some of the coins of ancient India, one sometimes comes across two symbols, which may answer to these two terms. The first is a symbol represented by either a vertical or horizontal line, running in a zig-zag fashion, [J. Allan, Coins of India, Ancient India, p. XCVII], which has been interpreted as a river, [ibid. ci]. The other is a symbol representing something like a piece of chain with three oval shaped rings, the only difference being that a vertical line passes through the points of contact of the links, [ibid., xxxix].

As to the term māsakahāpana, P. Māsa also means moon. Many coins of ancient India have symbols of the sun and the moon, [ibid. p. cxlvii; p. 41] and it may be possible that by the term māsakahāpana was meant one of these coins with the symbol of the moon engraved thereon. The only objection to this interpretation is that the word māsa should be used here in preference to the common word canda.

As far as is known none of these three types of coin have been found in Ceylon. It may also be possible that some of these coins found their way to Ceylon from India in

the ordinary course of trade. In fact there is literary evidence to show that the coins of Rudradāman of India, were used in Ceylon in ancient times. The Samantapāsādikā, for example, in giving the relative value of coins used at Rājagaha in the time of King Bāmbisāra, says that those values should not be assigned to the coins of Rudradāman and others, [Smp. 297].

According to the evidence of the texts, there does not seem to have been a central mint where the coins were made. It would appear that coins were made by goldsmiths and silversmiths living in different areas to meet the local needs. In the Vissuddhimagga there is a passage, where it is said that three different persons of different degrees of attainment and intelligence, would see one and the same coin in three different ways. An intelligent man, according to this passage, would even be able to find out in which part of the country the coin was made and by which craftsmen (P. ācariya), [Vsm.437]. This shows that different craftsmen had different techniques of making coins and perhaps also different symbols and designs which they engraved on the coins. Coins made in different areas could also be recognized by distinguishing marks or symbols engraved on the coins, or by their weights, shape and quality.

Owing to this decentralized system of making coins, counterfeiting coins was inevitable. Counterfeit kahāpanas were known as kūṭakahāpana and a dealer in gold or money, P.

heraññika would recognize them as such, by their symbols, weight, colour and taste, [Vsm.437], if suspected of being counterfeit.

Sometimes a coin would be tested on a touch-stone, P. heraññika-phalaka, by a dealer in money, [Vsm.43]. Even Buddhist monks were warned against the offence of uttering false coins, [Smp. 375].

Seals were used by kings and officials to attest the validity of warrants and other documents issued by them. The Sinhalese word for seal is 'has' Sk. hamsa. A seal was so-called because it would appear that the figure of a goose was the royal symbol used on the King's seal. It was also called in Pāli rāja-muddikā or rājalañchana, [Dhampag. p.60].

It appears that when a seal was not available, the impression of a finger-joint (P. añgulipabba) was placed on the sealing material.

Officials also had their own seals, which were used in certifying documents. The Tablet of King Mahinda IV, [E.Z. 1. 102] states that the accounts of the monastery at Mihintale must be periodically read before the assembly of the officials concerned and sealed with seals of the officials, (S. Kāmiyan hasin haskot).

The Badulla inscription of Udaya III mentions the practice of sealing the weights and measures used by the traders at a place called Miyuguna, [E.Z.III, p. 76].

The texts do not throw any light on the way seals were made of which material they were made, but the material used for sealing was either lac, P. lākhā or clay, P. mattikā, [Smp. 882]. It is interesting to note that the sealing wax used in the present day in Ceylon is known as S. lā-kada [P. Lākhā-khaṇḍa].

CHAPTER XI

TOOLS & WEAPONS

The people of ancient Ceylon were essentially agriculturists, though there were large numbers of artisans such as Smiths and potters, who served the needs of this community of agriculturists. The early Sinhalese, however, were not able to pursue their different trades in peace, first, because they had to subdue the aboriginal inhabitants of the country and secondly because the country was invaded from time to time by hostile forces from India. Thus in addition to tools required by the settlers for the purpose of clearing the land and cultivating it, they needed weapons to defend themselves against the invaders and to subdue the local population. One interesting fact that emerges from the study of texts bearing on this period is that this constant contact between India and Ceylon is reflected in the names of some of the tools and weapons used in ancient Ceylon. The Visuddhimagga [p.255] refers to a kind of hoe called the Sīhalakuddāla, a Sinhalese hoe, which implies that there were other kinds of hoe, presumably made or believed to have been made in other countries. We do not find a reference to such a hoe, but there are references to swords made in India, P. Jambudīpa-Khagga, [Mv. 72-102, 103]. It

¹Fine swords made of Indian steel had been famous since the time of Ctesias, and the Roman trade in Indian iron and steel was an important one, [E.H.Warmington, The Commerce between the Roman Empire and India, p. 257].

is not possible to ascertain whether the qualification Sīhala and Jambudīpa connote differences in quality or in shape and design. For instance, it is not possible to find out whether a Jambudīpa-khagga was of the same shape and design as one made in Ceylon but of a different quality or of the same quality but of a different shape and design. Possibly the Indian articles were introduced to the island by the invaders from India and adopted and even imitated by the local people owing to either their superior quality or more attractive design.

The Smith, P. kammāra, who made the tools had a smithy, P. kammāra-sālā [Vsm. 413], where he set up his forge, P. kammāranddhana, [Vsm. 287]. Among the tools he used were the sledge-hammer, P. kammāra-kūṭa, and the bellows, P. kammāra-gaggari, [Vsm. 287]. The pair of tongs P. sandāsa was also used, [Vap. 530]. The bellows used in ancient Ceylon appears, from a passage in the Visuddhimagga¹, to have consisted of a bag P. bhastam, which when pressed by the smith emitted a stream of air to the forge. The bag, it would appear, was made of hide, as is shown by the Mediaeval Sinhalese word kambaru-sam, P. kammāra-camma. The traditional iron-smelters of Ceylon use a bellows - consisting of two sacs made of hide.² These sacs are set up on the ground and

¹yathā hi kammāragaggariyā dhamamānāya bhastañca purisassa ca tajjam vāyāmaṃ paticca vāto sancarati evameva kāyañca cittañca paticca assāsa-passāsati.

²A.K.Coomaraswamy, Mediaeval Sinhalese Art, p.191 and 287.

an operator treads on them alternately to cause the air to flow out into the forge. A springy stake planted on the ground and connected to the sacs enable the sacs to be refilled with air after they are pressed upon by the operator.

Other tools mentioned in the literature as being used by agricultural workers and carpenters, are as follows:-

mattock, P. kuddāla, [Vsm. 255], S. hudalu [Sikhavi.61].

¹adze, P. Vāsi, [Vsm. 254], S. Vā [Sikhavi. 61],

axe, P. pharasu, [Vsm. 254], S. porō, [Sikhavi, 61]

²axe, battle-axe, S. keteri, (Sikhavi. 61].

chisel, S. niyan, [Sikhavi. 61].

awl, P. āra, [Vsm. 633].

sickle, P. dāta [Smp.III, 642].

When these tools became blunt P. Vipanna, owing to use, they were taken to the smith for being resharpened, [Vsm. 413].

Razors, P. khura, [Vsm. 255] and knives, P. Satta,

[Mv. 18.19] are also referred to in the texts.

The following weapons are also mentioned:-

sword, P. khagga, [Dv. 12. 1, 2].

spear, P. Kunta, [Mv. 25.1.]

bows and arrows, P. dhanu, [Pap.II.258] P.Sara [Mv.6.29].

dagger, P. nikkarani, [Mv.44.112], churikā, [Mv.39.27].

lance, S. kol, [Sikhavi. 70].

spear, P. tomara, [Mv. 69.11].

iron clubs. S. ya-mugur, E.Z.III.139.

¹See Jā-ag.p.26, where vāsi-pharasu-hattho is explained as S.Vā poro gat at atte; having hands grasping adzes and axes.

²Ibid p.101, where Kuthāri=s.porovak nohot keteriyak, axe or battle axe.

wooden clubs four riyān (P.ratana) in length,

S. dandū [Dhampag. 177].

wooden clubs, more than four riyān in length,

S. Yata, [Dhampag. 177].¹

¹When the neighbourhood of the Tissamahārāma monastery, which can be referred to a date as early as the first Century B.C., was excavated, a considerable number of tools and weapons was unearthed. Among them were the following:-

chisels; "jumpers" for boring wedge-holes in stone; iron wedges; a broken trowel of iron or steel (?); axe-heads; spear-heads of iron; iron javelin; dagger. [J.R.A.S.C.B. Vol. VIII, No.27. p.38-44].

CHAPTER XII

TRANSPORT

Water Transport

Ceylon being a comparatively small island situated in close proximity to a large land mass such as India, means of transport by water, in all probability, would have been developed in very ancient times. But no remains of ships or boats used by the people of ancient Ceylon have so far been discovered, though literary works provide us with some information on the subject.

The earliest references in the Chronicles to sea transport is in connection with the arrival of Vijaya. The Mahāvamsa records that Vijaya arrived in Ceylon in a ship together with seven hundred companions and their wives and children, [Mv. 6. 43, 44].

When messengers were despatched to South India for the purpose of arranging a marriage for Vijaya, again they are said to have used a ship to

reach Madhurā, [Mv. 7.51]. When the bride of Vijaya arrived in Ceylon, she did so accompanied by a number of companions, craftsmen and a thousand families of the eighteen guilds. They also brought elephants, horses and wagons, [Mv. 7.56-58] and disembarked at a place called Mahātītha. We are not told, however, whether all these people, animals and goods arrived in one ship or in several ships.

Later on when Prince Panduvāsudeva arrived in Ceylon, with two companions, [Mv. 8.10-12], and his bride arrived in the Island later accompanied by a similar number of friends, [Mv. 8.22-23]. When the Bodhi tree was brought to Ceylon, a considerable number of princes and attendants who had specific duties to perform embarked on the ship, which sailed along the Ganges and arrived in Ceylon through Tāmalitti, (modern Tamluk) [Mv. 19. 4-6].

Thus it is seen that from very ancient times there was constant communication between various parts of India and Ceylon. But we have no information that throws any light on the size or the manner of construction of the ships used in Ceylon. Though we may not place too much trust in the statement of the Mahāvamsa that Vijaya and his seven hundred companions travelled to Ceylon in a single ship and other statements about the number of passengers who travelled in ships to and from Ceylon, it is conceivable that in both India and Ceylon there were ships that could accommodate a

considerable number of crew and passengers. The Mahāvamsa refers to a ship that was lying upside down on a beach in Ceylon and says that inside was found a bees' nest one usabha in length, [Mv. 22.49]. This shows that this ship must have been at least one usabha in length, i.e. one hundred and forty cubits or seventy yards. Probably it was longer!

The Greek trader Cosmas Indicopleustes who traded on the coast of Malabar in South India about the middle of the sixth century A.D. has recorded that a great number of vessels from all parts of India, Persia and Aethiopia were in the habit of trading with Ceylon and that the island of Ceylon and the island itself had numerous fleets of ships belonging to its own merchants. He reckons the capacity of these ships to be about three thousand amphorae, i.e. about a hundred tons, [W.S.Lindsay, History of Merchant Shipping and Ancient Commerce, Vol. 1.155]. But Lindsay, [ibid. p.155] is inclined to believe that these ships were probably constructed not by the Sinhalese themselves, but by Indians - and points out that the Sinhalese always imitated the ships constructed by the neighbouring countries. But the mere fact that the Sinhalese imitated other ships, would not necessarily have precluded them from constructing ships for their own use. The Japanese in recent times imitated European models, but they still constructed them by themselves.

Hornell believes that the type of ship called Kolandiphonta in the Periplus must have been the two masted

vessel called in Ceylon *yātrā-oru*. This type of vessel was equipped with two masts, and its capacity was about fifty tons, [J. Hornell, *The Origins and Ethnological Significance of Indian Boat Designs*, M.B.A.S. Vol.VII, p.215].

These ships of ancient Ceylon were propelled by the wind by means of sails. The ship that brought the Bodhi-tree from India was equipped with a *piya* and an *aritta*, [Mv.19.70] which Geiger translates as rudder and helm. The *aritta* is referred to in the Pāli Texts as an accessory that is necessary to keep a ship steady in turbulent waters, [Vsm. 194, 279]. It could not be used as a punting pole [A Critical Pāli Dictionary, sub voce, because a pole of sufficient length for use in deep seas could not have been made. Probably it was a steering oar or some kind of substitute for a rudder. The *piya* was an oar probably made of a plank of wood or of bamboo. It is not known when rudders came to be used in the east, but Javanese ships of the 7th century seem to have been equipped with a steering oar, or a quarter rudder, [Hornell, op.cit.p.220].

In addition to sea-going ships there were in Ceylon smaller vessels used both in the sea and in the rivers. These vessels called in Sinhalese *oru* were dug out of a tree trunk [Dhampag. 212]. There were also, it seems, a kind of coracle used in Ceylon. When a Princess from Kalyāṇi was sent to a spot on the southern coast, she is said to

have been placed in a vessel called P. uk^khali, [Mv.22.21]. The P. word ukkhali usually means a cooking pot, and it is inconceivable that a princess could travel such a distance along the coast in a cooking pot. What is meant here is probably a kind of coracle, which had the shape of a cooking pot.

The conveyances used on land were palanquins P. sivika, [Mv.32.7], chariots, P. ratha, [Mv.38.94] and carts S. gäl [Mannar Kacceri Pillar Inscription, E.Z.III, 104]. The sivika or the palanquin was usually used by royalty or members of noble families and uptil recent times the use of a palanquin has been the privilege of the nobility.

The chariots were used wither by the king and nobles or by soldiers. The Papan̄ca-sūdanī¹ has a passage which throws some light on the chariots used in Ceylon. According to this account, chariots were of two kinds, one being evidently a war chariot square in shape and having a capacity to accommodate two or three people and the other a chariot specially made for the King. This chariot known as the alaṅkāra-ratha was large, long and broad and could

¹Pap.II. 194: ratho ca nāma eso duvidho hoti: yodharatho, alaṅkāraratho. Tattha yodharatho caturassasanthāno hoti, nātimaha, dvinnam tinnam vā Janānam gāhāna-samāttho. Alaṅkāraratho mahā hoti, dīghato ca dīgho, puthulato ca puthulo. Tattha chattagahako, vālavījanigāhako tālavanta-gāhako ti evaṃ attha vā dasa vā suken'eva thātun vā nisiditum vā nipajjitum vā sakkonti. Ayampi alaṅkāraratho yevo. So sabbo sacakkapaṇṇajarakubbaro rajata-parikkhato ahosi. Valavā pakatiyā setavannā va. Pasāadhanam pi tāsam rajatamayam hoti. Rāsmiyo pi rajatāpanālīsu pakkhittā. Patodalaṭṭhi pi rajata-parikkhato

accommodate with ease not only the King but also his attendants such as the umbrella-bearer and the fan-bearer. The wheels, P. Cakka, the chassis P. pañjara, and the poles P. Kubbara, were decorated with silver work. The harness of the mares too were made of silver, and the reins, P. rasmiyo, were encased in tubes of silver.

Ordinary carts were drawn by bulls [Mv.35.40] and in all carts and even in chariots the wheels, axles, P. akkha and yokes, P. yuga were made of the hard wood of a tree P. rukkhasāra, [Pap. II, 231].

Mechanical Devices.

Whatever remains today of the architectural and engineering works of the ancient Sinhalese shows that in their construction various mechanical devices and instruments must have been used, even if they be only of a simple and rudimentary character. For instance in the construction of large tanks like the Tisāvāva and the Minneriya tank, each of which is connected to other smaller tanks through canals, some methods of ascertaining the gradient of the land seems to have been used by the engineers who constructed them. Similarly in the construction of the stupas some devices must have been used to find out the height of, and to secure an acceptable standard of symmetry in these constructions. In the lifting and movement of heavy materials such as stone pillars some system of levers and pulleys would have been very useful.

It is difficult to believe that the ancient craftsmen built tanks, stupas and storied mansions without using

suitable mechanical devices and instruments, but solely depending on methods of trial and error.

But the literary works of the period throw little light on the mechanical and other devices used in the construction of these structures. For instance the Mahāvamsa refers only to one device that was used in the construction of the Mahāthūpa, namely the paribbhamana-dandaka [Mv.29.40] which consisted of a stake P. indakkhila, which was driven into the earth and was connected to a cord at the end of which was one more stake. This latter stake was used in describing a circle. For measuring land a rope was used, [Pap. I. 211].

The potter's wheel P. Cakka is mentioned in the texts and according to the Visuddhimagga the wheel was turned by being struck by a rod, P. dandappahārena, [Vsm.142]. The lathe P. bhama was also used for turning articles such as wooden caskets, and bowls made of coconut shell.¹

In the passage from the Papañcasūdanī it is said that the caskets were smoothed, i.e. evenly covered with lumps of lākhā. It is, however, not quite clear whether the lākhā too was applied to the casket while it was being turned on the lathe, as is the practice today when lac is applied to such symmetrical articles.

¹lākhāgūlamatte atthasāraakarandake likhāpetvā tesu te kambale pakkhipitvā lākhāya vattāpetvā setavattthena vethetvā samugge pakkhipitvā vatthena vethetvā rājamuddikāya lañcetvā..Pap.V.35 antarasamudde kira eko bhikkhu susanthānam nālikeram labhitvā bhamam āropetvā saṅkhatthālasadisam manorāmaṃ paṇīyathālakam katvā ... Smp. 306.

Some kind of machine is also referred to in the Visuddhimagga, in a passage describing the bowels, P. antaguna.¹ The passage seems to be corrupt and difficult to construe. The translators of the Visuddhimagga have paraphrased the crucial passage as "like the ropes of a machine which bind the boards together when it is pulled." But it is quite clear that machine was not intended to "bind boards", for if it were so, there is no point in referring to the door mats, P. pādapūñchana. It is quite clear that the object of the simile is to show that the antaguna consists of twenty one folds, (P. ekavīsatiyā antabhogānam thitam) like the (folds of) the rope that is woven round the exterior of the centre disc of the door mat, (P. pāda-punchanarajjumandalakassa antarā samsibbitvā thitarajjukā viya). These particular ropes remain in this fashion at a certain stage of the operation of the machine, particularly when certain boards (P. Yanta-phalaka) do not come together, perhaps, as they ought to.

It is also possible that this situation occurs when inexperienced persons attempt to operate the machine, for otherwise there is no need for the author to have mentioned

¹okāsato kuddālapharasu-kammādīni karontānam yantākaddhanakāle yantasuttakamiva yantaphalakāni antabhoge ekato agalānte ābhanditvā pādapūñchanarajjumandalalakassa antarā samsibbitvā thitarajjukā viya ekavīsatiyā antabhogānam antarā thitam. Vsm. 258.

persons who work with mattocks and axes (P.kuddālapharasu-kammādīni karontānam). Thus the Yanta referred to in this passage is probably a mechanical device consisting of two or more boards through which ropes passed and by the operation of which door mats of rope were produced.

Sugar presses (P. gulayanta) which extracted juice from the sugar cane are also referred to in the texts. The Vamsatthappakāsini refers to such a press situated in a field of sugar cane on a hill called Sonnagiri in the village called Ambatthakola, [Vap.624] but no details about this machine are mentioned.

The same work mentions a mechanical device used by King Bhāṅkābhaya to raise water to be sprinkled on the Mahāthūpa on the occasion of a festival, [Vap.629]. It is described as a P. cakka-yanta. But how this wheel raised the water is not described.

A catapult which ejected stones (P.yanta-muttānam pāsānānam) is referred to in the Mahāvamsa, in connection with the war between Prince Manābharana and a general called Rakkha, [Mv.72.251].

CHAPTER XIII

MATERIALS AND PROCESSES

In the construction of buildings as well as in making various articles for domestic use a considerable variety of materials was used by the Ceylonese Craftsmen. Owing to the limitations imposed by transport and processes of manufacture it may be presumed that mostly material available locally was used in the larger works of construction, though it would not have been altogether impracticable for some of these materials to be imported from neighbouring countries.

According to classical writers of the West Ceylon was abundantly provided with precious materials such as gold and gems and food stuffs such as rice and honey. Megasthenes, for example, says that the island produced an abundance of gold and pearls. Probably his information was derived from merchants who purchased these articles in Ceylon to be exported to the West, [E.H.Bunbury, A History of Ancient Geography, Vol.I, p.567].

Ptolemy mentions rice, honey, ginger, beryls, hyacinths, gold and silver and other metals among the products of the islands, [Ibid, Vol.II, p.603].

Besides, there is literary evidence to show that metals such as gold, silver and copper were available, perhaps in small quantities, to the kings of ancient Ceylon. When King Dutthagamani commenced the construction of the Mahathupa, gold

was discovered at a place three yoyanas north east of Anurādhapura, (Mv.28.13,14). Copper was discovered at a spot near the village called Tambapitṭha, seven yoyanas to the east of the City, (Ibid, 28.16) and silver in a cave called Amba-tṭhakola eight yoyanas to the east of the city, (Ibid, 28.20).

Kadāimpot, "boundary books", dealing with the boundaries, landmarks and sometimes even the produce of the villages and districts of mediaeval Ceylon, sometimes refer to the occurrence of precious metals and gems. A.M. and J.Ferguson, [Gold, Gems and Pearls in South India and Ceylon, p.24], refer to such a work which says that there were six pearl banks at Kururata, a mine of precious stones at Pehetigalla, gold, precious stones and pearls at Beligalla, and silver at a cave at Devmerata.

In addition to what was available locally, materials not so available or not available in sufficient quantities would appear to have been obtained from foreign countries, with which Ceylon had trade relations in ancient times. Lead, copper and tin, for instance, were imported to India from Rome, [E.H.War-mington, The Commerce between the Roman Empire and India, p.267], and some of these may have found their way to Ceylon.

That Ceylon's trade extended as far as a country called Cīna in ancient times is supported by the occurrence in the Pāli Commentaries of references to a substance called Cīnapitṭha [Pap.III,132], which has been identified as red lead.

The question whether present-day China was known as 'cīna' in ancient times has yet to be settled though Nīlakanta Sāstri, believes that the name Chīna has been derived from the expression "the people of Ts'in" which was used to designate the Chinese in ancient times, [I.H.Q.Vol.14, p.380,383]. Chinese literary works also record that Ceylon began to establish friendly relations with China as early as 97 A.D. when a Sinhalese king despatched an embassy to this country with various kinds of gifts, [J.R.A.S.(C.B.) Vol.XXIV, p.106]. The commentary to the Mahāvamsa refers also to a country called Romamukkharatṭha from where King Bhātikābhaya (20 B.C.-9 A.D.) obtained coral for decorating the net which he placed over the Mahāthūpa at Anurādhapura, [Vap.630]. There is no evidence to identify this country called Romamukkharatṭha with classical Rome, but it is interesting to note that the best coral was found in ancient times in the region around the Mediterranean Sea including the Calabrian Coast of Italy, [G.F.H.Smith, Gem Stones, p.475]. It is also definitely known that fine red coral from the Mediterranean was exported to India from Rome in ancient times. The demand for coral in India then was so great that people in Italy ceased to adorn their swords, shields and helmets with coral, [E.H.Warmington, The Commerce between the Roman Empire and India, p.263]. Diplomatic relations had also been established between Rome and Ceylon, as early as the reign of Emperor Claudius, according to

Pliny, [E.H.Bunbury, A History of Ancient Geography, Vol.II, p.421-22].

It is thus clear that there was a considerable volume of trade between Ceylon and other countries, even in the early phase of her history. Some of the materials mentioned in literary works, may, therefore, have been imported, when they were not available locally.

The following materials are mentioned in the literature of the Anurādhapura period:-

Minerals

- 1) P.Uppala, Mv.28.19, a kind of mineral found in association with gems, [U.C.R.VII, p.191).
 - 2) P.Kaṅkuṭṭhaka, [Vap.585]. The context in which this substance is mentioned (lākhākaṅkuṭṭhakeli etaṃ cetiyaṃ sucittayitvā - having caused this cetiya to be painted with lākhā and kaṅkuṭṭhaka) shows that it was used as a pigment. According to the Rasasamuccaya, Kaṅkuṣṭa is one of the eight secondary minerals, (Sk.uparasa) the others being sulphur, red ochre, vitriol, alum, orpiment arsenic monosulphide and anjana, [P.C.Ray, A History of Hindu Chemistry, p.49]. It is said to be white or yellow in colour, [Ibid,p.53].
- P.Silā, [Vibha p.64] S.sel, gal. Stone was used in the making of foundations of buildings, and in the making

of pillars and sculptures. It was of three kinds:

P.Kālasilā, (black stone) which in Sinhalese is called Kalugal, (gneiss); paṇḍu-silā, a kind of sand stone, dirty yellow in colour; setasila, (white stone) which is called in S.Kirivāna, milk stone, is a kind of quartz.

- 3) P.Kuruvinda, (Mv.28.19), a kind of mineral found in association with gems, [Ibid, VII, p.191].
- 4) P.Gulapāsāna, (Mv.29.37) , a kind of stone occurring in the form of balls. These stones were used at different stages in the construction of the foundation of the Mahāthūpa.
- 5) S.P.Gomeda, [E.Z.III,151] a gem found in the region of the Himālayas.
- 6) P.Cīnapitṭha, [Pap.III,132] red lead. This mineral was used in polishing articles made of gold, [Ibid, III,132] which states:

Cīnapitṭhapūjitam suvaṇṇacetiyaṃ viya...]

Vermilion (the sulphide of mercury) was similarly

used in polishing articles made of gold, [Pap.III,377

states 'jātihiṅgulakena majjitvā dīpidāṭhaya ghaṃsitvā

gerukaparikammaṃ katvā ṭhapita suvaṇṇarūpakam viya].

Geruka parikamma consisted of the application of a

geruka, Sk.gairika which is explained as a red chalk.

As both cīnapitṭha and hiṅgula are bright red in colour,

it would appear that these two substances were regarded as gairika - red chalk.

- 7) P.pavāla, [E.Z.III,151] S.pabulu, coral.
- 8) P.puppharāga, [E.Z.III,151] S.puppharāgan, is topaz or schorl [A Mand J.Ferguson, Gold, Gems and Pearls in South India and Ceylon, p.97].
- 9) P.phalika, [Mv.27.36] S.palingu - Crystal which is found in several parts of Ceylon.
- 10) P.Manosilā, [Sum Vil. 580]. Red Arsenic. This substance was used, after being dissolved in sesamum oil P.tilata, as a pigment to impart a red colour to plaster, P.Sudhā, [Sum Vil.580].
- 11) S.Marā, [E.Z.III,151], P.Mārakata, emerald. In Sinhalese this stone is known as pacca.
- 12) P.muttā, [Mv.28.36] S.mutu, pearl.
- 13) P.medavannapāsāna [Mv.30.58]. From the name this appears to be a kind of stone having the colour of fat, i.e. a cream colour. It is said to have been brought to Ceylon from Uttarakuru, which region has not yet been identified. The descriptive epithet medavanna suggests that the stone was possibly a kind of marble and the variety that answers to this description is steatite or soapstone. In colour this material is white or grey often tinged with shades of green or red. It is also interesting to

note that the word steatite is derived through the Latin from a Greek word which means "tallow stone"; Steatite was used in the Gandhāra and Taxila regions in the North-Western parts of India in ancient times. It was also used in making statues and pagodas in China, [G.F.H.Smith, Gemstones, p.431].

- 14) P.Veluriya [VI.241] - Cat's eye. Ceylon produces the finest variety of this stone, [Ferguson, op.cit,p.97].
- 15) P.haritāla, (Sum Vil.580]. S.hiriyal. Yellow arsenic or yellow orpiment. This substance was used in the same manner as manosilā.
- 16) Hingula - [Pap.III,377] Vermilion, a bright red pigment consisting of the sulphide of mercury. Both haritāla and hingula were found more abundantly in China than in India and may have been imported to India and thence to Ceylon from China, [J.F.Royle, An Essay on the Antiquity of Hindoo Medicine, p.101].

METALS

Though the Vedas show that the people of India had learnt the use of gold, silver and copper when the Vedas were being composed, there is a difference of opinion as to the time when the use of iron became known to them. The term *ayas* occurring in the Vedas has been taken by some to indicate iron, [N.N.Banerjee, On Metals and Metallurgy in

Ancient India, I.H.Q. Vol.3, pp.123-133], but there is no archaeological evidence to show that iron was introduced to this country at such a period. D.H.Gordon believes that iron was introduced to India about the period 700-600 B.C., [D.H.Gordon, The Early Use of Metals in India and Pakistan, J.R.A.I. Vol.LXXX.(1950) p.63, 67].

Whether the processes connected with the smelting of these metals were introduced to Ceylon, when the Aryans invaded the island cannot be decided on the available evidence. But it seems certain that when the material of the Pāli atthakathas was being put together, i.e. after the arrival of Buddhist missionaries in the island in the third Century B.C. these processes became known to the people of Ceylon.

The Commentary to the Vibhaṅga divides metals into four categories as follows:-

1. Jāti-loha, 2. Vijāti-loha, 3. Kittima-loha and
4. piśāca-loha, [Sam Vin 63].

Of the seven metals mentioned under the category of Jāti-loha all but one which is not identifiable with any certainty, are elements. Even this unidentified metal may be an element; or it may be a metallic compound or a metallic alloy. Thus the term jāti-loha seems to indicate what today are known as metallic elements. The only metal which is grouped under the category vijāti-loha - cannot be identified with any certainty

and the exact significance of the term vijāti-loha cannot be ascertained.

The third category, kittima-loha includes three alloys which can be identified with certainty. Therefore the term kittima-loha means an alloy.

Under the fourth category, pisāca-loha, are included eight substances including mercury (P.Capalaka), blue vitriol (P.morakkha) and several unidentified substances. The term P.pisāca-loha suggests that the substances grouped under this category were not available to the people readily and were probably obtained from outside. It is interesting to note that copper obtained from Nepal was regarded in India as of a superior quality, while that obtained from other countries was called mleccha, [Rasaratnasamuccaya, quoted by P.C.Ray, A History of Hindu Chemistry, p.60].

Furthermore the inclusion of copper sulphate under the group pisāca-loha shows that they regarded this compound as being capable of yielding copper. The term loha meant, therefore, not only the metal, but also an ore or compound from which a metal could be extracted. In sense, therefore, the term loha is an exact parallel to the Latin metallum which meant not only a metal, but also a mineral or an ore, [T.A.Rickard, Man and Metals, p.5].

It is possible that metals such as gold, silver and copper may have been found in a pure state¹ in Ceylon. When King Duṭṭhagāmaṇī commenced the construction of the Mahāthūpa gold, copper and silver were discovered in certain parts of the island and they are described as being found in the form of P.bīja and pinda², which terms Geiger translates as nuggets and lump respectively. But the term bīja may mean also seed i.e. a source and therefore the term suvaṇṇa-bīja may mean an ore of gold rather than a nugget of gold, though the use of the plural militates against this interpretation.

The list of loha as appearing in the Commentary to the Vibhaṅga is as follows:

1. Jāti-loha

ayo, iron [I.H.Q. Vol. 3. p. 121-133]

sajjha, silver

suvaṇṇa, gold.

¹Copper, gold and silver occur native or in a pure or uncombined state. Gold usually occurs native in quartz veins as reef gold and in alluvial gravels as alluvial gold. Gold usually contains silver and copper impurities. Silver occurs frequently native, Vid. S. V., A Dictionary of Metallography]

² Ācāravittigāmaṇhi solasakarīse tale suvaṇṇabījaṃ utthimsu vividhāni pamānato

Purā pācīnapassaṃhi sattayojanamatthake gangāpāre Tambapitthe tambaloham samuttahi

Taṃgāmikā tambalohabījaṃ ādāya pātiyā rājānaṃ upasaṃkamma taṃ atthaṃ ca nivedayum.

gaheṭvekaṃ sajjhupindaṃ gantvāna sakatāsantikaṃ sakatāni thapāpetvā sajjhupindaṃ taṃ ādiya.]

tipu, tin

sīsa, lead [P.C.Ray. op. cit., p.62]

tamba, copper[do p.48]

Vekantika, unidentified

It would appear that tin and lead were regarded in ancient times as two varieties of one and the same metal, for the list referred to above defines P.tipu as seta-tipu, white tipu and sīsa as kāla-tipu, black tipu. It is obvious that kāla-tipu here refers to lead which, unless freshly melted, assumes a black colour, owing to oxidation.

The mineral, vekantika is probably to be identified with the mineral called SK. Vaikrānta, which according to the Rasaratnasamuccaya, a work assigned to the period 1100 - 1300 A.D., is one of the primary minerals - rasa, [P.C.Ray, op. cit. p. 45]. It has been suggested [ibid. p. 75] that Vaikrānta may represent some kind of mineral occurring in a crystallised form, but as it is said to be capable of being liquefied, it has not been possible to identify this substance.

2. Vijāti-loha

Only the substance called P. nāganāsika is mentioned under this category. In S.k. nāga means tin or lead, and tutthanāga is the name given in India to Chinese zinc, [J.F.Royle, Antiquity of Hindoo Medicine, p. 100]. Zinc is known in Ceylon even today by the same name. As zinc is not mentioned under any of the categories, it is probable that nāganāsika signifies either zinc or a compound of zinc.

3. Kittima-loha

kamsa

vattaloha

arakūta

As pointed out before, kamsa and vattaloha are two alloys.

Kamsa, SK kamsya is bell-metal, which is made by melting together eight parts of copper and two parts of tin, [P.C.Ray, op. cit., p. 64]

P. Vatta-loha or SK. Varta-loha, is an alloy produced from Kamsya, copper, brass, iron and lead, [Ray, op. cit., p. 64].

This appears to be a variant form of the alloy called S. pas-lō (SK. pañca-loha) in Sinhalese. It is an alloy of copper, brass, tin, lead and iron, [Clough, Sinhalese-English Dictionary].

Pañca-loha was widely used both in South India and in Ceylon in casting images, [O.C. Gangoly, South Indian Bronzes p.29]. Brass which is itself an alloy of copper and zinc was added to copper when making pañca-loha, probably because brass possessed some quality that made the alloy more suitable for casting images. Even Italian sculptors seem to have recognized this characteristic of brass, for Georgio Vasari [1511-1574], a well-known sculptor and writer on sculpture, recommended that bronze for casting statues should be made of two thirds copper and one third brass, [Georgio Vasari, Vasari on Technique, p.163] Sk. Ara-kūta means brass.

Pisāca-loha

morakkha
 puthuka
 malinaka
 capalaka
 selaka
 bhallaka
 dūsiloha.

Only two of the substances in this group can be identified with certainty. Morakkha appears to be another name for mayuratuttha which is identified as blue vitriol, [P.C.Ray, op. cit. p.93]. Sk akṣa P.Akkha is another name for blue vitriol. The epithet mayūra or mora is added to tuttha and akṣa - to indicate the rich blue colour of blue vitriol.

Malinaka may be brass. Sk.mala means brass.

Capalaka - as the name indicates is quicksilver, [P.C.Ray, op.cit., p.64].

Selaka is the Sk.Sailaka by which is meant any kind of bitumen or benzoin associated with rock.

Bhallaka - unidentified.

Dūsi-loha - indicates, probably, a metallic compound which is poisonous. Sk.dūsi is a poisonous substance.

Sudhā and iṭṭhakā

Two of the commonest materials used during the Anurādhapura period in the construction of buildings were plaster, P.sudhā and bricks P.iṭṭhakā.

Plaster was used as a medium of bonding bricks and also as a coating for walls.

The chief materials used in the preparation of plaster were lime, P.sudhā, which is a term used both for the lime and the plaster, and sand, the exact proportions of each material varying with each bricklayer. For instance, when the work on the Mahāthūpa was begun, King Dutthagāmaṇi ascertained from the brick layers who came forward to undertake the work - the proportions of sand and lime that each would use in making the plaster. The brick-layer who said that he would use the least amount of sand in making the plaster was finally entrusted with the work, [Mv.30.9]. No further details are available as to the other materials used in the making of plaster, but a work by the name of Sudhā-lepa-vidhānam which seems to have been used by South Indian masons, gives further details of the actual preparation of plaster, which is called sudhā-lepa in this work.¹

According to this work sudhā is the powder obtained by burning conch, mother-of-pearl or shell. The powder so obtained is moistened with a solution of molasses and an infusion made of small peas (mudga). To this is added a

¹ I.H.Q. Vol. 3 p. 54-57. The date of this work is not known, and the plaster is meant to be used as a coating on which paintings are drawn.

quarter part of sand with unripe plantain fruits, boiled and well beaten into a pulp. This mixture is then placed in wooden troughs for two months and later transferred to a slab of stone and the whole mixture ground into a fine paste as soft as butter.

At the present day, lime plaster is prepared in the same way in Ceylon, but no pulp made of plantains is added to the plaster. Molasses or treacle is used only very occasionally.

Besides lime plaster, a mixture of common clay and sand - *P. mattikālepa* [Smp. 568] was also used in the construction of buildings. Cow-dung was used as a coating for the floors, [Pad. 409].

Wood.

Of the different varieties of timber used both for building purposes as well as for making articles for house-hold use the wood of the coconut palm (*P. nālikera*) and of the Jak tree, *P. panasa* (*Artocarpus integrifolia*) seem to have been very common, [Mv. 23. 87; Vap. 510]. Sandal wood, *S. sandun*, was commonly used for making articles used in religious ceremonies, particularly in the making of relic-caskets, [Thupav. p. 81].

Bricks.

Bricks were used very extensively in ancient Ceylon in the construction of houses and other buildings. Bricks were burnt in a kind of oven, in the shape of a pan (*S. baḍun SK bhājana*), [Dhag. 65]. It is possible that bricks were also sun-dried,

though there is no mention of such a practice in the texts. Sun-dried bricks are, however, made in some parts of Ceylon.

Ancient Sinhalese brick-makers made bricks to specified dimensions, which varied according to manufacturer or perhaps area. When the Mahāthūpa was being constructed, monks who were eager to participate in the work brought bricks to the site of the Mahāthūpa, against the orders of the king. But, we are told the unwanted bricks were detected at once because their dimensions were different from those of the approved bricks, [Mv. 30. 29. 37]. Details of the dimensions of bricks are recorded in some texts as follows:-

length -	1 ratana,
breadth -	1 vidatthi, (span)
thickness -	4 aṅgulas, (fingerbreadth)

Manop. I, 169; Sumvil 580.

But the dimensions of some bricks found at the Gedige at Anurādhapura are as follows:-

	1	2	3
length:	12 $\frac{3}{4}$ "	12 $\frac{3}{8}$ "	11 $\frac{3}{4}$ "
breadth:	6 $\frac{1}{4}$ "	6"	5 $\frac{3}{4}$ "
thickness:	2 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "	2 $\frac{1}{2}$ "

[mem. A.S.C.III, p.4]

If the terms ratana, vidatthi and aṅgula are taken literally, there seems to be a considerable measure of agreement between the two sets of dimensions.

Other Materials

The following materials are also mentioned in the literature of the period:

leather, P. Camma [Mv. 10. 55; 22. 37]

Canvas made of hemp, S. Goni [E.Z.III, 133]

Kāca, a glass-like substance, P. kāca [Mv. 66. 134]

There is no definite evidence to show that glass was manufactured in ancient India or Ceylon, though some believe that Indians had known how to make glass ornaments for a long time, [Lectures on the Results of the Great Exhibition of 1851, p. 473]. Glass was, however, exported to India by the Romans from their glass factories at Alexandria, Tyre and Sidon, [Warmington, op. cit. p. 271]

ivory, P. danta, [Smp. 13]. S. āt-dat, [Stūpa. 81]

Coconut-shell, P. nālikeraphala, [Smp. 306]

bamboo, P. nāli [Vsm. p. 91]; Velu, [Pap. 219]

Conch-shell, [Mv. 37. 200]

matting P. kilañjaka, [Pap II. 153]

lac, P. lākhā, [Vap. 585]; S. lātu [Sikhavi. 38].

Lac is derived from the lac insect (*Coccus lacca*) which is found in trees mainly growing in Burma, Siam, Bengal, Assam and Indo-China, [G.F.H. Smith, op. cit. p. 490]. The insect is also found in Ceylon and lac is obtained and used in various articles of house-hold use made in the island.

APPENDIX TO CHAPTER III

	Land	Rice
1. Steward - ākamiyā	5 kiriya	
2. Clerk of Vihāraa - veherlēya	"	
3. Registrar of caskets - karandleya	"	
4. Almoner - pasak kāmīyā	"	
5. Lay warden - piriyaḥanuvata Kāmiyā	1 kiriya 2 paya	2 admanā(raw)daily
6. Watchman- Sārāyin	2 paya	1 " "
7. Master of festivals - maṅgul Jet	1 k. also 1 vasog	fr. Damiya
8. Servant attending to rearing of calves - vatsika Kāmi	1 k. 1 vasog	" "
9. Supplier of earthen alms bowls - matipatak	1 paya	2 pata raw rice daily
10. Organizer of outside affairs - pitassamak	1 k. 2 paya	2 admanā raw rice daily
11. Servant attending to matters connected with palace - rajge upani kapaṇi	1 k. 2 paya	2 admanā raw rice daily

	Land	Rice
12. Olkāmiya	2 paya	1 admanā 2 pata raw rice daily
13. Perevāliya of Piyangal Monastery	2 paya 1 vasag	fr. Daniya
14. Perevāliya of Salamevan Pavu	2 paya 1 vasag	"
15. Alināvak(headpainter ?)	2 paya	1 admanā 1 pata raw rice daily
16-26. āli ekolosak (each)	2 paya 1 vasag	fr. Daniya
27-30. 4 Vatā vāpi (each) servants of paymaster (?)	2 paya (for life) juel	1 admanā
31-32. 2 atsam of Vihāra (each)	2 paya	1 admanā 1 pata raw rice daily
33. Kotarākinā - headkeeper of granary or carpenter(?)	2 paya	1 admanā 2 pata raw rice daily
34. Caretaker of granary - kot rāki	2 paya	1 admanā of raw rice daily
35. Jet-mava	1 paya	1 " 2 pata of raw rice daily

	Land	Rice
36. Warden of refectory, bat ge lādiya	1 paya	2 pata 1 admanā of raw rice [daily]
37. One who issues orders to mindi slave (?)	2 paya	
38-61. 24 hired mindis (each)	1 paya	One kalanda of gold for clothes
62. Servant who attends to affairs arising in Sangvālla - Sangvāli upānikānu	1 kiriya	1 admanā of raw rice [daily]
63-74. 12 cook pisana sala (each)	1 kiriya 2 paya from the village of Tolagama	
75. Head of these - Salā Jet		1 admanā 1 pata rice daily [in addition]
76. Servant who procures firewood & cooks food		3 admanī adm. " "
77. Servant who brings firewood		2 admanā of rice daily
78. Servant who goes on errands - saman var giya sala		" " " "
79. Cook who cooks in firewood fetched by others		1 admanā of rice daily

	Land	Rice
80. Pahāvāsi Jetak	2 paya	1 admāna 1 pata of rice daily
81-91. 11 pahāvāsi (each)	2 paya	1 adm. of rice daily.
92-96. 5 potters who supply 5 each earthen pots daily	1 kiriya	
97. Alms bowl maker who supplies every month 10 bowls and 10 water pots	2 kiriya	2 adm. of rice daily.
98. One who supplies a strainer monthly	1 kiriya 2 paya	
99. Physician	a. niya pāliya from the sena called Detisā	
100. Physician who applies leeches	2 paya 1 vasaga	(fr. Damiya)
101. Mandovuva	1 kiriya 2 paya and 1 vaseg	(fr. Damiya)
102. Astrologer	2 kiriya and 1 vaseg	(fr. Damiya)
103. Barber	1 kiriya and 1 vaseg	(fr. Damiya)

	Land	Rice
104. Keeper of Relic house - dage atsamak		
105. Chief of retinue of attendants - gana jetu		
106. Registrar of shrines	The village of Karandagama	
107-109. Suptdts. of service by turns		
110. Several [unknown no.] dummal-assam- who serve by turns	4 vasag	(fr. Damiya)
111.-112. Two florists	2 Kiriya 1 vasag	(fr. Damiya)
113. Florist supplying 120 lotuses a month	2 Kiriya fr. Sapugamiya	
114. Painter	2 Kiriya	
115. District headman - rat ladu - in charge of relic house	1 naliya of rice daily	
116-121. 6 dummal assam and others	one village	

	Land	Rice
122. Pūnā kāmīyā		
123. Officiator at Buddha statue	2 paya	1 admana 2 pata of rice daily
124. Kaman ledaru who provides a cup for oil for unction of Buddha statue, etc.	1 Kiriya 2 paya	2 admana of rice daily
125. Chief master Artisan vadu maha aduru	Senaya at Bind Vehera	
126-127. Two master Artisans		
128-135. 8 Carvers, Sirvadu	village of Vadu devāgama	
136-137. two bricklayers		
138-139. two woodworkers	1 Kiriya	
140-141. two lapidaries minir vadu	3 Kiriya	
142-143. two blacksmiths	1 Kiriya	
144. Lime burners [no. not known]	village of Sunubul devāgama	

	Land	Rice
145-150. 6 cartmen		
151. Overseer of workers by the piece	village of Dunugama 1 Kiriya	1 adm. 1 pata of rice daily
152-163. 12 workers by the piece	2 paya	1 adm. of rice daily.
164. Warder of Navaguna- mahasāya		
165. Warder of Nāteviya mahasāya	2 paya	
166. Warder of Ambula dāgāba		
167. Sweepers who look after dāgābas	1 vasag	(from Damiya)
168. Men who perform service in the relic house etc. several		
169. Laundryman	3 Kiriya	(fr. Maṅgulāva)
170. "		

APPENDIX TO CHAPTER IV

B.Bhārḥut; S.Sānchi, Am.Amarāvati; Aj.Ajanta.

1. Bodhi Tree, with Buddha underneath, Brahma and Sakra, B.S.
2. Seven Weeks, Am.
3. Prayer of Brahmā.
4. Setting in motion the wheel of the doctrine, S.Am.
5. Admission of Yasa into the order.
6. Admission of the Bhaddavaggiya monks into the order.
7. Subduing of the Jaṭilas, B.S.Am.
8. The Visit of Bimbisāra.
9. The entry into Rājagṛha.
10. The accepting of Veluvana.
11. The eighty disciples.
12. The Journey to Kapilavatthu, S.
13. The miracle of the Jewelled Path.
14. Pabbajjā of Rāhula and Nanda, Am.Aj.
15. The accepting of Jetavana, B.S.
16. The miracle at the foot of the Mango tree.
17. The preaching in the heaven of gods, S.
18. The miracle of the descent of the Gods, S.Am.
19. The assembly with the questioning of the Thera.
20. Mahāsamaya Suttanta.
21. Exhortation to Rahula, Am.
22. The Mahāmaṅgala Sutta.
23. Encounter with the Elephant Dhanapāla, Am.Aj.
24. The subduing of the Yakkha Alavaka.
25. The subduing of Aṅgulimāla.
26. The subduing of Apalāla, B.
27. The meeting with the Pārāyanakas.
28. The giving up of life, S.
29. The accepting of the gift of Pork.
30. The accepting of the gift of the two coloured garment.
31. The drinking of pure water.

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UNIVERSITY OF CEYLON REVIEW

The University of Ceylon was established on the 1st July, 1942, by the fusion of the Ceylon Medical College (founded 1870) and the Ceylon University College (founded 1921). It has at present Faculties of Oriental Studies, Arts, Science and Medicine. Its seat is temporarily in Colombo, but it will be moved to Peradeniya, near Kandy, as soon as its new buildings are ready for occupation. The University has taken over from the Government of Ceylon the publication of the *Ceylon Journal of Science*, which will be developed as its chief means of contact with Scientists elsewhere. The *University of Ceylon Review* has been founded in order to make similar contact with scholars in literary subjects, to provide a medium of publication for the research in those subjects conducted in the University, and to provide a learned review for Ceylon. The *Review* is now published four times a year, in January, April, July and October. The Annual Subscription is Rs. 5, and a single copy Rs. 2.50.

University of Ceylon Review

Vol. VII No. 4

October, 1949

The Convocation Address

Delivered by His Excellency Lord Soulbury at King George's Hall, on
26th August, 1949

I AM very glad to be given the opportunity to address the Graduates and Under-Graduates of this University of which I am intensely proud to be the Chancellor, for I know that I am speaking to those who in years to come will bear the responsibility for guiding and directing the affairs of this country. Ceylon will look to them for leadership in government, in the professions, in industry, commerce and agriculture, and in the promotion of artistic and cultural activity.

A University must ever aim at attracting, encouraging and developing an *élite* which in the nature of things can never be more than a relatively small proportion of a country's population. We all realise that the bulk of an Army must consist of non-commissioned officers and privates. To train every recruit to become an officer would impose an intolerable burden on the Higher Command, which would in any event only find it possible to provide commissions for a very small number. Thomas Huxley in the last century quoted with approval Sir Francis Galton's estimate that not more than one in four thousand of the population of Great Britain could be expected to attain distinction and that not more than one in a million would have "some share of that intensity of instinctive aptitude, that burning thirst for excellence which is called genius".

Napoleon is credited with the observation that every soldier carries a Marshal's baton in his knapsack. That could only be true if all soldiers were born with the same innate capacity, but they are not. Education cannot create natural ability, it can only develop it, and the boy or girl who gets to a University probably possesses and certainly should possess superior natural ability. It is the business of the educational Higher Command to select those whose qualities of mind and character appear to be outstanding and provide every opportunity for their cultivation and improvement.

For that reason the standard of admission to a University should always be very high and to lower it in response to popular or political pressure would

be to betray a University's function as the training ground of a nation's leaders.

Up to the First World War, so far as my experience at Oxford goes, and I expect the same was true of Cambridge, there were many Under-Graduates whose presence at the University was mainly due to their fortunate possession of parents with sufficient resources to maintain them. The number of Scholarships available for poorer students, if they were successful in winning them, was far too small, and the standard of Scholarship required was extremely high. There were, of course, in Oxford in my time many very clever and hardworking men, but I had a considerable number of friends whose capacity to profit by their University education was in inverse ratio to their capacity to enjoy the many other amenities which the University provided. Indeed, it was remarked by some cynic that the University was a place to which a parent sent his son in order to learn how to spend what he would never have the ability to earn. I am glad to say that the situation is now very different. In Great Britain and in all progressive countries, it is realised that a University education can no longer be the privilege of a limited class of boys and girls from well-to-do families. Apart from the injustice of such procedure no country can any longer afford the waste of intelligence involved. Clever boys and girls are a national asset no matter what homes they come from, and it is a national duty to give them every facility for the development of talents which can and should eventually be placed at the service of the whole community.

But this most necessary and desirable change of outlook has not unnaturally produced increasing pressure from all sections of the population to obtain a University education and has brought with it three problems—

- (1) The output of a number of Graduates in excess of the possibility of employing them in occupations commensurate with their qualifications or at any rate with what they think their qualifications merit ;
- (2) a tendency to over-specialize and favour a utilitarian aspect of education ;
- (3) the maintenance of a high standard of admission.

1. The first problem is by no means a new one. It worried Germany long before it worried Great Britain, mainly, I think, because it had always been easier for a child of poor parents to gain admission to a German University and, just because his parents were poor, more necessary for him to find employment as soon as he had graduated. Bismarck was disturbed by the problem and rather cruelly nicknamed this surplus of Graduates "Hunger Candidaten". France had the same trouble, for you find French writers complaining in the latter part of the Nineteenth Century that the number of young persons in France with an advanced education was increasing more

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rapidly than the number of careers which such education opened to them, and warning their countrymen that the acquisition of knowledge for which no use could be found was a sure method of driving men to revolt.

I believe that the fashionable word for that state of mind is now "Frustration". This is no new feeling, and is a very real affliction. So it may be some consolation to those who suffer from it to recollect that as long ago as the end of the Sixteenth Century, Burton, the famous author of *The Anatomy of Melancholy* was also a victim. "We that are University men", said he, "like so many hide-bound calves in a pasture tarry out our time, wither away as a flower ungathered in a garden and are never used, or, as so many candles, illuminate ourselves alone, obscuring one another's light". I might add that he had a curious remedy for his ailment, for he tells us later on that he would fall into such a state of despondency that he could only get relief by going to the bridgefoot at Oxford and hearing the bargemen swear at one another.

Poor Burton clearly suffered from "frustration" and there have been many other sufferers since his day. The problem is still with us.

Nearly twenty years ago, when I was first given a measure of responsibility for Education in England and Wales, the usual avenues of employment open to University Graduates were the Civil Service and the Professions—Law, Medicine, Teaching and so forth, but there was and had long been a definite prejudice in the minds of the leaders of manufacturing and trading concerns against the employment of Graduates, on the ground that their education was too academic. Preference was given to young boys and girls who could be trained from the outset by their employers.

I spent a great deal of time in trying to convince the heads of Industry and Commerce that it would be in their interests to attract and engage the best brains from the Universities, and indeed in the long run fatal to their interests if they did not. No doubt for a short while after engagement, the University Graduate does not earn the equivalent of the salary which his age and prolonged education justify, but if Trade and Industry are to have proper leadership in the future, the best trained intellects are needed, and organizations that do not value trained intelligence are doomed.

Here and there, though not often, I used to discover an employer who had some acquaintance with the Republic of Plato, and I reminded him of the parable of the Cave. You will remember that Plato tells us that the philosopher when he first turns from philosophy to the life of the World sees badly, like a man going back from the light into the darkness of the Cave. But with practice, says Plato, he will come to have a far better insight than others into practical affairs because of all that he has seen in the clear light. If you substitute University education for the light, and Trade and Industry for the darkness of the Cave, you will appreciate the relevance of this parable.

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I think my arguments had some effect, for today there are few, if any, really important concerns in Great Britain which do not have on their staff a number of University Graduates, and the field of employment for those who have had a University education has been considerably enlarged. But even so, the potential scope for the employment of those who have been trained at a University is limited, for the number of leaders required is in the nature of things relatively small.

2. The second problem, the danger of excessive specialization, leads me to say a few words about Technical Education and the function of a University in that regard. As I have already mentioned, up to comparatively recent times, the majority of Graduates, at any rate from the older Universities, found employment in the Civil Service, the Church and the Professions. When they went into Industry or Commerce, it was usually a family business, and most of them came from the great Public Schools or Grammar Schools. There was, of course, a sprinkling of highly gifted men who subsequently reached great distinction in the sphere of science but, broadly speaking, our factories and commercial concerns did not draw many recruits from the Universities, which were supposed to give a liberal as opposed to a vocational education and for that reason did not commend themselves to manufacturers and business men. Technical training was secured either in actual employment at an early age or in Technical Colleges and Institutes, mainly at evening classes after the day's work was over. That was roughly the position at the beginning of the First World War. At the end of it, we realised how lamentably deficient our technical education had been, and great efforts were made between that war and the next to remedy the position. We suffered, as other countries have suffered and still suffer, from a widespread preference for black-coated jobs. They had a higher social prestige and were on the whole more remunerative. But for some years before the last War we made strenuous efforts to increase and improve the facilities for technical training, and I and my colleagues spent a good deal of time endeavouring to impress upon teachers, parents and children that it was just as respectable and honourable to turn a lathe or drive a tractor as to work in an office. These efforts bore fruit and it was fortunate that they did, for the Second World War produced a vastly greater demand for technically trained persons than the First, and since the Second War it has not been the black-coated but the manual jobs which have attracted the largest increases in pay. But I did not at that time, nor do I now, consider it to be the function of a University to become a Vocational Institution. Technical education is, I think, mainly the province of the School and the Technical College. Some of the Universities in the United States have found that it was a mistake to blur the distinction between the University and the Technical College and Mr. Winston Churchill when speaking at Harrow a year ago, declared that he was terrified at the idea that Universities should become

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Technical Schools where every form of material proficiency was imparted in different grades. The duty of a University, he said, was to teach wisdom and character and not just technicalities. In his opinion no amount of technical knowledge could replace an appreciation of the humanities.

And yet a University cannot ignore the activities that a mechanical age like ours has evolved. But there is a wide distinction between the training of the faculties and training for a vocation and I think it is part of the work of a University to deter the student of science or mechanics from the specialization that confines a man to a narrow one-sided view of life. It has been well said that specialization is the instrument of advance but exacts a heavy price by destroying in the mind of man the unity of what is essentially related. The best physician according to the ancient Greeks was also a philosopher, and I think it was Froude who wrote, "Every honest occupation to which a man sets his hand would raise him into a philosopher if he mastered all the knowledge that belonged to his craft". A University is not, and should not be, the handmaid of Industry, but it can formulate and illumine technical principles; it can explain the "why" rather than the "how", and relate vocational studies to the other manifold activities of mankind. In short, it can liberalise the vocations and help the engineer, chemist and physicist to "see life steadily and see it whole".

3. The third problem—a general problem—confronting educationists all over the World is how to satisfy the increasing demand for education, including University education, without lowering educational standards.

In the eighteenth century Dr. Johnson said, rather unfairly, of the Scots—"Their learning is like bread in a besieged town; every man gets a little, but no man gets a full meal". I am inclined to think that the reason for Dr. Johnson's jibe was the attempt made by the Scots, long before the English, to broaden the basis of their education and give something like an equal chance to the poorer children, despite resources inadequate for the purpose. They met with considerable success and I am sure that their effort made no small contribution to the remarkably large number of Scotsmen, considering the small population of their country, who distinguished themselves in England and most other parts of the World during the succeeding century. I think, however, that England is now catching Scotland up.

We are all of us today facing much the same task that the Scots began to tackle two hundred years ago, the securing of equality of opportunity in education for every child.

In Great Britain the provision of suitable post-primary or secondary education for all children over eleven years of age is putting a very severe financial and administrative strain upon her resources. It may be many years before real progress is made and there is, of course, always the tempt-

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ation to try to do too much too quickly and thereby run the risk of lowering the whole level of education.

Nevertheless, it is, I think, a risk that we must all run if any worth-while progress is to be achieved, but I believe that the Universities can be relied upon as the ultimate safeguard against any irreparable damage.

It follows that in these days of educational advance and experiment a very great responsibility rests upon Universities and their members. Whatever is to pass into the life of a nation must first be taught in its Schools and whatever is to be taught in its Schools must first be cultivated in its Universities. If their standard of cultivation is maintained at a high degree of excellence, then in due course the Schools will conform and the whole level of culture will rise.

A great opportunity now presents itself to Ceylon, and I like to think that she can look forward some day to a cultural revival such as occurred in ancient Greece and in England in the Elizabethan era. What gave birth to those remarkable flowerings of human genius I do not know. Perhaps the defeat of the Persians at the battle of Marathon and the relief from a mortal danger evoked an upsurge of national confidence. Perhaps the spirit of the Renaissance, the defeat of Spain and England's consciousness of herself as "an Island with an Ocean destiny" liberated the energies of her people. Whatever the explanation, comparable periods may well recur from time to time in the history of other lands. But only on one condition. As Pandit Nehru has said in his remarkable book *The Discovery of India*—"the loss of political freedom leads inevitably to cultural decay". I feel sure that the life-blood of the creative impulse that produces great Art and Literature is freedom. Ceylon is now free.

The Titles of the Sinhalese Kings as recorded in the Inscriptions of 3rd Century B.C. to 3rd Century A.C.

Introduction

THE titles of the Sinhalese Kings as recorded in the inscriptions of 3rd B.C. to 3rd A.C. were *Maharaja*, *Raja*, *Gamaṇi*, *Devanāpiya*, *Ma Parumaka* and *Aṭṭaya*. (Princes were called *Aya* and Princesses *Abi*). In his paper on "Two Royal titles of the early Sinhalese and the origin of Kingship in Ancient Ceylon,"¹ Paranavitana discussed the titles *Gamaṇi* and *Ma Parumaka*: some supplementary observations thereto are offered here. The Chronicles omit altogether the epigraphical titles *Ma Parumaka* and *Aṭṭaya*, and they accord the title *Devanāpiya* only to Devānāpiya Tissa although the epigraphs prove its continuation by this King's successors for nearly 3 centuries; but, with regard to *Gamaṇi*, they establish an usage from the time of Paṇḍuvāsudeva to Gajabāhuka Gāmaṇi which is in general agreement with the inscriptions. The names and titles of Kings appear in the inscriptions (i) when the King himself is the donor, in which case it is usual for him to give also his father's and grandfather's names if they were Kings, or (ii) to show the kinship to the Royal family where the inscription is by a Queen, prince, princess or relative, or (iii) to describe an office held directly under the King where the inscription is by a high official, or (iv) to date the epigraph regnally. Of 83 pre-Christian cave inscriptions in which Royal personages are named, only 7 represent grants by the King himself,² while 33 are by Queens and Princesses, 28 by Princes and 15 by other persons. For every epigraphical grant of a cave by a Royal personage there are at least 12 grants by chiefs, headmen, householders and others. The paucity of cave inscriptions of the Kings themselves, at a time when the cave monastery was the vogue, is certainly surprising, especially as the Chronicles would have us believe that the Kings of the early Buddhist period built and endowed

1. J.R.A.S. (*Journal of the Royal Asiatic Society*), July, 1936, 443 ff.

2. (a) the Dambulla inscription of Saddhā Tissa, *A.I.C.* (*Ancient Inscriptions of Ceylon* by E. Müller) 3, (b) the Riṭigala inscription of Lanjatissa, *E.Z.* (*Epigraphia Zeylanica*), I, 144, (c) the 4 inscriptions at Periyapuliyankulam, *A.S.C.A.R.* (*Archaeological Survey of Ceylon, Annual Report*), 1905, 47, Nos. 19 to 22, in which the joint donors are Raja Uti and his wife, Abi Anuradi, and (d) perhaps, the partly mutilated Mihintalē inscription of Uttiya which reads :—DEVANAPIYA MAHARAJAHA GAMAṆI UTI . . . PAṆI LENE.

Vihāras in many parts of the Island with great liberality.³ In the 1st, 2nd and 3rd centuries A.C., when the rock inscription replaces the cave inscription, the position changes and the Kings themselves are the grantors in about half the number of inscriptions in which they are mentioned. It might be contended that there is a probability of the Kings not having been accorded their full or proper titles in the large proportion of inscriptions in which they themselves were not the grantors and that this accounts for the variations in the Kings' titles exhibited in the inscriptions. In the writer's view such laxity or carelessness in naming the King is not likely to have occurred or to have been countenanced.

Maharaja and Raja

The relative frequency and value of the Royal titles *Maharaja* and *Raja* are illustrated in the tabular statement. A further analysis of 234 inscriptions of Royal personages, both identified and unidentified, in the period under review, discloses the following frequencies in the use of the various titles, singly and in combination :—

<i>Devanāpiya Maharaja Gamaṇi</i>	..	..	28	inscriptions
<i>Devanāpiya Maharaja</i>	..	..	12	„
<i>Devanāpiya Raja</i>	..	..	2	„
<i>Devanāpiya</i>	..	..	3	„
<i>Maharaja Gamaṇi</i>	..	..	11	„
<i>Raja Gamaṇi</i>	..	..	8	„
<i>Maharaja</i>	..	..	69	„
<i>Raja</i>	..	..	87	„
<i>Gamaṇi</i>	..	..	8	„
<i>Ma Parumaka Maharaja</i>	..	..	3	„
<i>Ma Parumaka Maharaja Apaya</i>	..	..	1	„
<i>Maharaja Apaya</i>	..	..	2	„

Saddhā Tissa, Kaniṭṭha Tissa and Mahāsena are described as *Maharaja* in every inscription in which they are mentioned. But they are exceptions. In general, the Kings were styled *Maharaja* in a majority of inscriptions, but there was no apparent distinction between *Maharaja* and *Raja*. In India, the Kings did not assume the title *Maharaja* till about the 1st century B.C. but in Ceylon it was in use nearly 2 centuries earlier. The *Mahāvamsa* employs it rarely but in those instances it signifies no higher degree of rulership.

3. Devānāpiya Tissa, for instance, is credited with the construction of 68 rock-caves around the Kantaka Cetiya at Mihintalē (*M. Mahāvamsa* 16, 12), but, although most of the caves in this locality bear inscriptions, not one is by Devānāpiya Tissa. Duṭṭhagāmaṇi Abhaya is stated to have built 68 or 99 Vihāras (*M.* 24, 47; 32, 26). Saddhātissa built Vihāras from Dīghavāpi to Anurādhapura, one for every yojana of the way (*M.* 33, 9).

THE TITLES OF THE SINHALESE KINGS

THE TITLES OF THE KINGS AS RECORDED IN THE
INSCRIPTIONS OF 3rd B.C. TO 3rd A.C.

MAHARAJA AND RAJA—TABULAR STATEMENT

KING	INSCRIPTIONS OF THE KING'S REIGN				INSCRIPTIONS CONTAINING POSTHUMOUS REFERENCES TO THE KING			
	No. of Ins- crip- tions	No. in which the King is styled Maha- raja	No. in which the King is styled Raja	No. in which nei- ther title is used	No. of Ins- crip- tions	No. in which the King is styled Maha- raja	No. in which the King is styled Raja	No. in which nei- ther title is used
DEVĀNĀMPIYA TISSA ..	4	4	—	—	2	—	—	2
UTTIYA ..	3	3	—	—	—	—	—	—
KĀKAVANNA TISSA ..	—	—	—	—	1	1	—	—
DUṬṬHAGĀMAṆI ABHAYA ..	7	4	1	2	1	—	1	—
SADDHĀ TISSA ..	9	9	—	—	1	1	—	—
LANJATISSA ..	2	1	—	1	2	1	1	—
VATṬAGĀMAṆI ABHAYA	15	13	—	2	1	1	—	—
MAHĀCŪḲĪ MAHĀTISSA	3	1	2	—	9	7	1	1
TISSA ..	—	—	—	—	1	—	1	—
KUṬAKANNA TISSA ..	2	—	1	1	11	4	5	2
BHATIKĀBHAYA ..	7	2	3	2	1	—	1	—
MAHĀDĀṬHIKA MAHĀ- NĀGA ..	10	5	5	—	2	1	1	—
ĀMAṆḌAGĀMAṆI ABHAYA ..	3	—	2	1	—	—	—	—
SUBHA ..	2	—	2	—	1	—	1	—
VASABHA ..	9	4	5	—	9	5	4	—
VAṆKANĀSIKA TISSA ..	2	1	1	—	9	7	2	—
GAJABĀHUKA GĀMAṆI..	13	7	6	—	—	—	—	—
MAHALLAKA NĀGA ..	10	7	3	—	9	8	1	—
BHĀTIKA TISSA ..	3	1	2	—	2	2	—	—
KANIṬṬHA TISSA ..	14	14	—	—	—	—	—	—
SIRINĀGA I ..	1	1	—	—	1	1	—	—
VOHĀRIKA TISSA ..	1	1	—	—	1	1	—	—
SIRINĀGA II ..	2	2	—	—	1	1	—	—
GOṬHĀBHAYA ..	3	—	3	—	—	—	—	—
MAHĀSENA ..	1	1	—	—	5	5	—	—
	126	81	36	9	70	46	19	5

Some Kings (Duṭṭhagāmaṇi Abaya,⁴ Vaṭṭagāmaṇi Abhaya,⁵ Mahācūḷ Mahātissa,⁶ Kuṭakaṇṇa Tissa⁷ and Āmaṇḍagāmaṇi Abhaya⁸) were mentioned at times by their personal names without any title other than *Gamaṇi*. Duṭṭhagāmaṇi and Tissa were styled *Devanapiya Raja* and not *Maharaja*.⁹ A pre-Christian cave inscription at Mihintalē reads:—DIPA RAJA JITAYA MAHABIYA LEṆE ŚAGAŚA: *Dipa Raja* signified the King over the whole Island and it did not derogate from his dignity to be called *Raja*. The conclusion to be drawn from the evidence is that, in regard to the Anurādhapura kings, *Maharaja* and *Raja* were understood and used as synonymous terms, no greater emphasis being laid on the former: these Kings, certainly from Duṭṭhagāmaṇi Abhaya onwards, ruled over the whole of Ceylon.

An unusual use of the title *Maharaja* has to be mentioned. A 1st century inscription at Karandahela,¹⁰ incised over 200 years after the death of Kākavaṇṇa Tissa, reads:—HABUTAGALA VIHARAHI KAKAVAṆA TISA MAHARAJAHA UVASIKA MATA TU (MA) HA VAVI SAGA DINA MAHA VA... The Rugam inscription,¹¹ which is relevant though just outside the period covered by this paper, begins:—SIDDHAM YAṬALAKA TISA MAHARAJA... SARIMEKAVAṆA ABA MAHARAJA TUMANA PACAVANAKA VASAHI PIYAKALUTATA VAHIRA ICI CEYA ICI KARAVAYA: its date is about 5 centuries after the time of Yaṭṭhālaya Tissa. Both Kākavaṇṇa Tissa and Yaṭṭhālaya Tissa are posthumously styled *Maharaja* in these 2 inscriptions although neither of them ascended the throne of Anurādhapura or ruled over the whole Island.¹²

4. The Sīlavakanda inscription (*A.S.C.A.R.* 1935, para 41) reads:—UPAŚAKA VELAŚA LEṆE UPAŚIKA TIŚAYA LEṆE GAMAṆI ABAYAŚA RAJAŚI ŚAGAŚA DINE.

5. An inscription at Dambulla Vihāra and the Tittavela inscription (*A.S.C.A.R.* 1933, paras 56 and 76) read respectively:—(i) DAMARAKITA TERAHA LEṆE AGATA ANAGATA CATUDIŚA ŚAGAŚA DINE GAMAṆI ABAYAŚA RAJIYAHĪ KARITE, and (ii) BATA MAHATIŚAHA LEṆE GAMAṆI ABAYAŚA RAJAYAŚI... ŚAGAŚA.

6. *E.Z.* III, 156, note 5.

7. The Dunumaḍalakanda inscription (*A.I.C.* 15) begins:—KUṬAKAṆA GAMAṆI ABAYAHA PUTI BATIYA MAHARAJA; see also the Rātravela inscription (note 51) and *E.Z.* III, 156, note 5.

8. The Ridivihāra inscription (*C.J.S.* II, 179) begins:—DEVANĪPIYA TISA RAJAJA MARUMANAKE TISA MAHARAJAHA MARUMANAKE NAKA MAHARA(JA)HA PU(TA GA)MAṆI ABAYA DINE.

9. See notes 8 and 38.

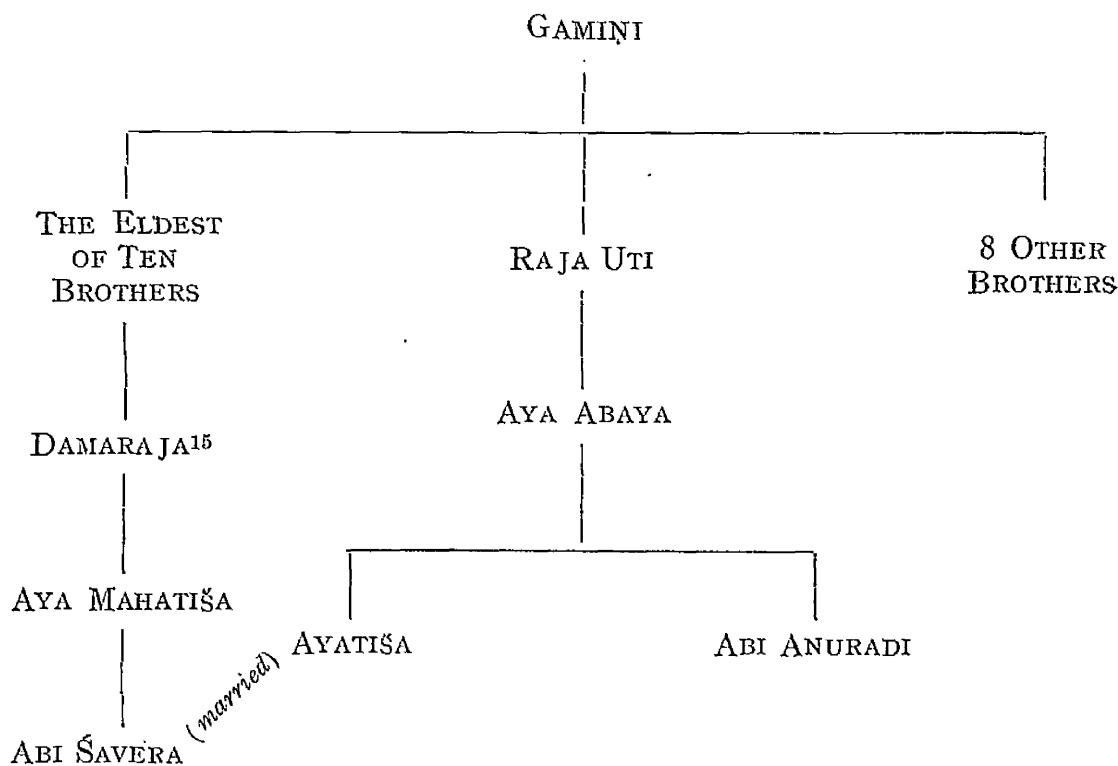
10. 1½ miles north of the 13th milepost on the Pottuvil-Monerāgala road. Dr. Paranavitana informs me that this inscription is in verse.

11. *A.I.C.* 24, revised: the word which would have explained the context in which Yaṭalaka Tisa is here mentioned is, unfortunately, obliterated.

12. Kākavaṇṇa Tissa was ruler of Rohaṇa when Eḷāra reigned at Anurādhapura. There is disagreement as to where Yaṭṭhālaya Tissa ruled, whether at Mahāgāma or Kalyāṇi—see *M.* 22, 10; *M.* 85, 64 to 65; *Puj* 15; *Raj* 24.

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The pre-Christian cave inscriptions contain the names of several Royal personages (*Raja, Gamaṇi, Aya, Abi*) whose identities are uncertain. Parana-vitana suggests that the princes named in the Bōvattagala inscriptions appear to be identical with the *Kṣatriyas* of Kājaragāma mentioned in the *Mahāvamsa*.¹³ The 14 inscriptions at Koṭṭadāmuḥela,¹⁴ only 10 miles to the west, all read, with slight variations, as follows:—DAMARAJA PUTA MAHATIŚA AYAHA JITA ABI ŚAVERA AYA ABAYA PUTA TIŚA AYAHA JAYA ABI ŚAVERAYA DINE. Damaraja and his son, Mahatiśa Aya, of the Koṭṭadāmuḥela inscriptions are identical with the persons bearing the same names in the Bōvattagala inscriptions: and both sets of inscriptions bear the same distinctive symbol of the fish. The genealogy derived from them is as follows:—



The fish symbol occurs also in the Henannēgala inscription¹⁶ which mentions Gamaṇi Tiśa, Majima Raja and Gamaṇi.

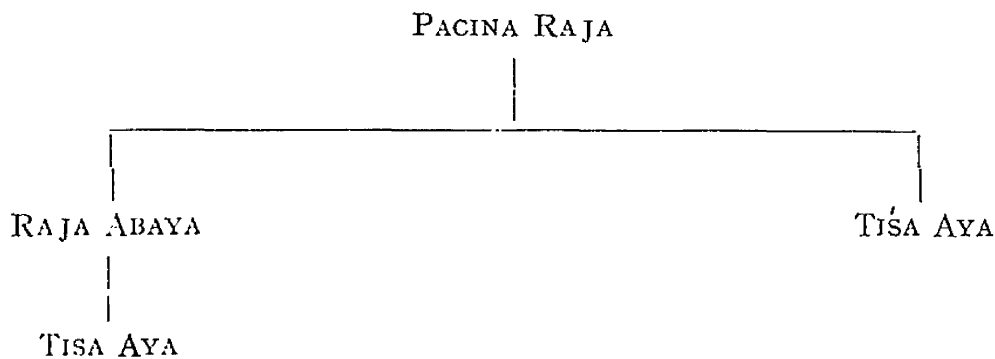
13. *J.R.A.S.*, July, 1936, 445; *C.J.S.* II, 99 to 100, 114 to 115, 175 to 177.

14. *A.S.C.A.R.*, 1934, para 78.

15. If this Damaraja was a local ruler in South and South-East Ceylon, there was another king bearing the same name at Anurādhapura: see the inscription of Aya Aśali, son of Gamaṇi Dhamaraja, at Mihintalē (*A.S.C.A.R.*, 1911-12, 95, No. 10, revised) and a reference to Damaraja in an inscription at Nāṭṭunkanda not far from Mihintalē (*A.S.C.*, 7th Report, 48, No. 3).

16. Parker, 446.

About 20 miles from Henannēgala is the Kusalānakanda inscription¹⁷ which reads :—UPARAJA NAGA PUTE RAJA ABAYE NAMA TAŚA PUTE GAMINI TIŚE NAMA LEÑE KARITE ŚUDAŚANE ŚAGAŚA. This inscription does not bear the fish (or any other) symbol, but its proximity to Henannēgala suggests that the *Rajas* and princes mentioned in the 2 inscriptions belonged to the same Royal family. Very close to Kusalānakanda is the Kaluḍupotana-malai inscription¹⁸ reading :—AYABAYA PUTAŚA RAJIYAŚI KAṬE PARUMAKA ŚA. . . . Aya Abaya may be identical with Raja Abaya of Kusalānakanda. Paranavitana considers that Naga Aya of the Kolladeniya (Kiṇivālgoda) inscription¹⁹ may be Mahānāga, the first ruler of Rohaṇa :—PARUMAKA PUŚADEVAŚA JAYA PARUMAKA LAŚONAYA LEÑE NAGAYAHA RAJAYAHĪ KAṬE ŚAGAŚA. Two inscriptions at Mihintalē bear the text :—KAṆAGAMA RAJAŚA TIŚAHA JITA ŚAVERA ŚAMAṆIYA LEÑE ŚAGAŚA.²⁰ An inscription at Koratōṭa,²¹ near Colombo, records the grant of a cave by the daughter of a *Maharaja* whose name is not stated. The Periyapuliyankulam inscriptions mention a princess named Abi Anuradi, the daughter of Raja Naga and the wife of Raja Uti.²² The Āmbulambē inscriptions²³ give the genealogy :—



The Bambaragala inscription mentions Pocani Raja Nāgaya and his wife, the daughter of a Brāhmaṇa.²⁴ Princes named Aya Śuratiśa, Aya Śiva, Daraka Aya son of a Raja, Aya Duhita (probably a contemporary of Vaṭṭagāmaṇi Abhaya) and Uti Aya are mentioned in inscriptions at Dimbulāgala,²⁵ Mutu-

17. *Ibid.*, 421 and 445, revised.

18. *A.S.C.A.R.*, 1933, para 84.

19. *A.S.C.A.R.*, 1934, para 71(i). If the Kusalānakanda inscription is not associated with the one at Henannēgala, the equation Nagaya (Kolladeniya) = Uparaja Naga (Kusalānakanda) = Uparājā, Mahānāga (*Mahāvamsa*), seems feasible.

20. *A.S.C.A.R.*, 1911-12, 95, No. 11(ii) revised.

21. *A.S.C.A.R.*, 1932, 9.

22. *A.S.C.A.R.*, 1905, 47, Nos. 19 to 22.

23. *A.I.C.* 34, revised.

24. *A.S.C.A.R.*, 1935, para 42.

25. *C.A. (Ceylon Antiquary)* III, 4.

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gala,²⁶ Nāccerimalai,²⁷ Nuvarakanda²⁸ and Ranagirimada²⁹ respectively. The identification of the Royal personages named in the foregoing series of pre-Christian inscriptions is outside the scope of this paper, but the inscriptions are relevant to show that Buddhist rulers styled *Raja* ruled in the south and east contemporaneously with the early *Devanapiya Maharajas* and *Rajas* of Anurādhapura. It is not possible to be precise as to whether they were dependent, independent or semi-independent of the Anurādhapura king, but it is significant that none of them is styled *Devanapiya* or *Maharaja*. *Ayas* also exercised ruling powers and two of their inscriptions are dated regnally, Nagayaha rajayahi and Ayabaya putaśa rajiyaśi.

Devanapiya

The significance of *Devānāṃpriya* in Asoka's inscriptions has been explained elsewhere.³⁰ Its etymological meaning is "dear to the gods" and it was used in India as a honorific title and sometimes as a substitute for *Rājā* by the Emperor Asoka principally and to a lesser extent by his predecessors and successors. The Ceylon chronicles are unanimous that Muṭasiva's son and successor, Tissa, was the first (and only) King of Laṅkā to be called *Devānāṃpiya*. The epigraphical evidence in support of the Chronicles that *Devānāṃpiya* Tissa was the first King to be so named lacks certainty. The Rajagiri-lanakanda inscription of *Devanapiya Tiśa*³¹ and the following inscription from Mihintalē refer most probably, though not with certainty, to *Devānāṃpiya* Tissa:—DE(VA)NAPIYA MAHARAJAHA BARIYAYA BAKA . . . UPAŚIKA VARUṆA(DA)TAYA LEṆE.³² Paranavitana attaches credibility to the *Mchāvamsa* account of *Devānāṃpiya* Tissa's second consecration and suggests that "when Asoka conferred the dignity of a King upon Tissa (*Devānāṃpiya* Tissa) he also permitted the latter to use the title (*Devānāṃpriya*) by which he always refers to himself in his own inscriptions".³³

26. *Ibid.*, III, 211.

27. *A.S.C.A.R.*, 1933, para 81.

28. *C.J.S.* II, 127, No. 535.

29. About 10 miles north-east of Kurunāgala. See also the Yaṭahalena and Lenagala inscriptions, *C.J.S.* II, 202 to 204.

30. *Corpus Inscriptionum Indicarum*, Vol. I, by E. Hultzsch, xxix; *Asoka and his Inscriptions*, by B. M. Barua, 16 and 106.

31. *A.S.C.A.R.*, 1933, para 55.

32. *A.S.C.A.R.*, 1911-12, 94, No. 2, revised. The 2 Piccandiyāva inscriptions (*A.I.C.* 84) reading (i) MAHARAJAŚA DEVANAPIYAŚA GAMINĪ TIŚAŚA VEJA BAMAṆA GOBUTIYA LEṆE ŚAGAŚA, and (ii) MAHARAJAŚA DEVANIPIYAH A CIRIYA BAMAṆA GOBUTIYA LEṆE, also refer, in all probability, from the nature of the script, to *Devānāṃpiya* Tissa. In the later Yaṭahalena and Mīnvila inscriptions (*C.J.S.* II, 203, No. 618, and *E.Z.*, III, 156, note 5), *Devanapiya* stands for *Devānāṃpiya* Tissa.

33. *J.R.A.S.*, July, 1936, 443.

This proposition may not be wholly acceptable : but Devānaṃpiya Tissa and Asoka were contemporaries and there was intercourse between the Mauryan empire and Ceylon, and there can be no doubt that Devānaṃpiya Tissa assumed the title in imitation of Asoka.

The earliest, certain, epigraphical use of *Devanaṃpiya* is in the Mihintalē inscriptions of Uttiya, the younger brother and successor of Devānaṃpiya Tissa.³⁴ In the period of about 110 years (corresponding, approximately, to the 2nd century B.C.) between Uttiya and Vaṭṭagāmaṇi Abhaya, there is some slight degree of doubt as to the identities of the kings mentioned in the inscriptions. *Devanaṃpiya Maharaja Gamaṇi Abaya* of the Tōnigala,³⁵ Kossagamakanda³⁶ and Mihintalē³⁷ inscriptions has been identified on palaeographical grounds with Duṭṭhagāmaṇi Abhaya. The Koravakgala inscription of the reign of the same King reads —DEVANAPIYA RAJA ABAYAŚA ŚENAPATI PARUMAKA M(I)TAŚA LEṆE AGATA ANAGATA CATUDIŚA ŚAGAŚA.³⁸ There is no evidence, historical or epigraphical, that any ruler other than the King at Anurādhapura bore the title *Devanaṃpiya*. The preceding epigraph, incised in the King's lifetime, after he had ascended the throne of Anurādhapura and restored Sinhalese sovereignty over the whole of Ceylon, has the unusual combination *Devanaṃpiya Raja* in place of *Devanaṃpiya Maharaja*.

Wickremesinghe has identified *Devanaṃpiya Maharaja Gamaṇi Tisa* of the Riṭigala inscription with Saddhā Tissa.³⁹ The same identification has been made in respect of the Dambulla⁴⁰ and Nuvaragala⁴¹ inscriptions and the 5 inscriptions at Rājagala.⁴²

In the Riṭigala inscriptions,⁴³ Lanjatissa is styled *Devanaṃpiya Tisa A(baya)* and *Devanaṃpiya Laja(ka Tisa . . .)*; the second of these inscriptions is partly obliterated and probably contained the title *Maharaja* or *Raja* at the end, but in the first inscription *Devanaṃpiya* was used along with the King's personal name, in an inscription of the King himself, unaccompanied by either *Maharaja* or *Raja*.

Devanaṃpiya Maharaja Gamaṇi Abaya of the 9 Gallena inscriptions⁴⁴ and the Sasseruva inscription⁴⁵ is identified as Vaṭṭagāmaṇi Abhaya. Henceforward occurs a change in the position of the Royal title *Maharaja*.

34. *A.S.C.A.R.*, 1933, paras 53 and 54 ; note 2(d).

35. *A.I.C.* I.

36. *J.R.A.S. (C.B.)*, Vol. 36, No. 98.

37. *A.S.C.A.R.*, 1911-12, 97, No. 23 : read Loṇapi for Lanapi.

38. *A.S.C.A.R.*, 1934, para 71(ii).

39. *E.Z.* I, 144.

40. *A.I.C.* 3.

41. Parker, 445.

42. *A.S.C.A.R.*, 1935, para 39.

43. *E.Z.* I, 144, 148.

44. *A.I.C.* 2 ; *A.S.C.A.R.*, 1935, para 40 ; *E.Z.* I, 142.

45. Parker, 444 ; *J.R.A.S.*, July, 1936, 449.

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Mahācūḷi Mahātissa (B.C. 77-63) is styled *Devanāpiya Tisa Maharaja* in the Maha Ratmalē,⁴⁶ Mōlāhiṭiyavelēgala,⁴⁷ Mihintalē,⁴⁸ Kaduruvāva⁴⁹ and "Line"-malai⁵⁰ inscriptions. In the Rātravela inscription he is styled *Devanāpiya Gamani Maharaja*.⁵¹

Tissa (B.C. 51-48) is called *Devanāpiya Tisa Raja* in the Ridīvihāra inscription;⁵² this is the second instance of the use of *Raja* (and not *Maharaja*) with *Devanāpiya*.

The full titles of Kuṭakappa Tissa (B.C. 44-22) as given in the Maha Ratmalē⁴⁶ and Mihintalē⁴⁸ inscriptions were *Devanāpiya Puḍakana Gamani Abaya Maharaja*.⁵³ In the same Mihintalē inscription, Bhatikābhaya is styled *Devanāpiya Gamani Abaya Maharaja*. The latest epigraphical record of the use of *Devanāpiya* occurs in the Maha Ratmalē inscription in which Mahādāṭhikamahānāga (A.C. 7-19) is called *Devanāpiya Naka Maharaja*.

We have, therefore, an almost unbroken epigraphical series for the use of the epithet *Devanāpiya* by the Sinhalese kings of Anurādhapura from B.C. 247 to A.C. 19. There are only 3 inscriptions of Mahādāṭhikamahānāga's successors up to and including Yasalālakatissa : all 3 are of Āmaṇḍagāmaṇi Abhaya and *Devanāpiya* does not occur in any one of them. The dynasty of Devānāpiya Tissa ended with Yasalālakatissa (52-60) and the use of the dynastic honorific *Devanāpiya* came to an end at the same time. But *Devanāpiya* was not paraded in every inscription nor even in a majority of inscriptions : it occurs in 45 out of 94 royal inscriptions from Devānāpiya Tissa to Mahādāṭhikamahānāga and it was rarely used in the inscriptions referring to the last three of these kings. Devānāpiya Tissa's successors on the throne of Anurādhapura continued to use the title till his line terminated with the assassination of Yasalālakatissa in the year 60. As time went on, the honorific significance of the title had added to it a dynastic or lineage significance, as

46. E.Z. I, 61.

47. E.Z. III, 154.

48. A.I.C. 20, revised.

49. A.S.C.A.R., 1935, para 43 ; the inscription begins :—DEVANIPI TISA MAHARAJA.

50. 2½ miles west of the 64th milepost on the Batticaloa-Pottuvil road. The inscription reads :—SIDDHAM DEVANAPIYA TISA MAHARAJA MANUMAKARAKE KUḌAKAṆA RAJAHA PUTE RAJA ABAYE CA NAKA MAHARAJA CA DAKA-PUṆAKA MA(HA) GIRIGAMA KA AḷI CA SIPAVATAHI BIKU SAGAYE NIYATE ME DO AḷI SIRAHĪ KARA KAḌAVI.

51. A.S.C.A.R., 1934, para 71(iv). The first part of the inscription reads :—SIDDHAM DEVANAPIYA GAMANI MAHARAJA MARUMANAKA PUḌAKAṆA GAMANI ABAYAHA PUTA NAKA MAHARAJA BOHOGIRI NAKAPAVATAHI TU(MA)HA VIHARAHI DINA SAGIKA CATUDISIKA.

52. See note 8.

53. Kuṭakappa Tissa is called Abaya in 10 inscriptions and Tisa in 3 (Ridīvihāra, C.J.S. II, 179, Tissamahārāma, C.J.S. II, 18 ; and Koṭaveheragala, C.A. III, 205).

is evident from the Mīnvila inscription of Kuṭakanna Tissa,⁵⁴ and when a new dynasty replaced the old it could no longer be continued.

Wickremesinghe advanced the proposition that (i) in the pre-Christian inscriptions the title *Maharaja* was always inserted between the epithet *Devanapiya* and the name of the King, e.g. *Devanapiya Maharaja* Gamaṇi Abaya, and (ii) in the inscriptions of the 2nd and 3rd A.C. the title *Maharaja* came after the King's name, e.g. *Devanapiya* Gamaṇi Abaya *Maharaja*.⁵⁵ Three examples could be quoted against the first part of this hypothesis :— (a) one of the 5 royal epigraphs at Rājagala⁴² reads :—MAHARAJAHA DEVANAPIYAHA GAMAṆI TIṢAHA PUTAHA TIṢA AYAHA MAHA LENE ; (b) the Piccandiyāva inscription⁵⁶; and (c) the Kossagamakanda inscription³⁶ which reads *Maharajaha Gamaṇi Abayaha Devanapiyasa*, but here the unusual order of words is accounted for by the fact that the inscription is in verse. Wickremesinghe's identification of the Kings in the Maha Ratmalā⁴⁶ and Riṭigala⁵⁷ inscriptions was at fault and Paranavitana has corrected the former error⁵⁸ : moreover, his chronology was different to that adopted here.⁵⁹ The change which he observed in the relative positions of the titles *Devanapiya* and *Maharaja* actually became the rule in the inscriptions in which Mahācūlī Mahātissa (B.C. 77-63) was given his full titles, and continued to be the rule till *Devanapiya* went out of use in the middle of the 1st century.

Gamaṇi

" He who brings guerdon comes as first invited : the chief of the hamlet (*grāmaṇī*) comes as guerdon-bearer. Him I account the ruler of the people who was the first to introduce the guerdon ". " Blest be the hamlet's chief (*grāmaṇī*), most liberal Manu, may his bounty rival that of Sūrya ".⁶⁰ These two quotations from the Rigveda elevate the *Grāmaṇī* to a position of rulership, a position far higher than that of a village chief. *Grāma* originally had the sense ' horde ' or ' host ' (group of nomads) and *Grāmaṇī* was the leader of the *grāma*.⁶¹ The Bharatas, one of the most powerful tribes of the Vedic period, are called a *jana* (' people ') as well as a *grāma*.⁶¹ *Grāmaṇī* was identical with *Vrājapati* and was the commander of a division of troops in war.⁶¹

In the later Brāhmana period in India, the *Grāmaṇī* was one of about a dozen high personages who took an important part in the ceremony of the

54. E.Z. III, 156, note 5.

55. E.Z. I, 147.

56. See note 32(i).

57. E.Z. I, 148.

58. E.Z. III, 156.

59. Mendis' Chronology in this *Review*, Vol. 5, No. 1, page 39.

60. *Rigveda*, Book X, hymn 107, verse 5 (933, 5) and hymn 62, verse 11 (888, 11).

I am indebted to Dr. O. H. de A. Wijesekera for these two references.

61. *Cambridge History of India*, 93 to 95.

King's consecration. " Probably at this epoch a *Grāmaṇī* was, both for civil and military purposes, at the head of each village, owing, it may be conjectured, his position to the king, while the *Grāmaṇī* par excellence presided over the city or village where the royal court was situated. It is also far from unlikely, despite the silence of the texts, that the civil functions of the *Grāmaṇī* were the more important, for the post is emphatically declared in several places to represent the summit of the ambition of the Vaisya. If later analogy is to help us, we may conjecture that the *Grāmaṇī* formed the channel through which the royal control was exercised and the royal dues received "62.

In the *Mānavadharmasāstra* the head of one village is called the *Grāmika*.63 By the time of the Jātakas and in the Mauryan Empire, the position of the *Gāmaṇi* in India was that of a village headman appointed by the king: he is equated with *Gāma-bhojaka*.64 The distinction between *Gāmaṇi* and *Gāmika* is now vague as well as confused, and historical criticism has not yet made the position clear. However, the deterioration of the rank or office of *Gāmaṇi* from Vedic to Mauryan times is noticeable: at first, the leader of the host, comparable with Manu, and finally a village headman.

This deterioration did not occur in Ceylon. With one possible exception, the *Gāmaṇis* of the Chronicles and inscriptions were undoubtedly Kings or princes. The Chronicles first give the title *Gāmaṇi* to Dīghagāmaṇi, the nephew of King Paṇḍuvasudeva:65 then they accord it to Duṭṭhagāmaṇi Abhaya, Vaṭṭagāmaṇi Abhaya, Āmaṇḍagāmaṇi and finally to Gajabāhuka Gāmaṇi. The inscriptions confirm the Chronicles in respect of these 4 Kings and add to the list Devānaṃpiya Tissa(?), Uttiya, Saddhā Tissa, Mahācūḷi Mahātissa, Kuṭakaṇṇa Tissa and Bhatikābhaya. The Prince Gāmaṇi was so named because he was lord of Mahāgāma,66 so that the title *Gāmaṇi* was given to the King's son in the King's lifetime. Dīghagāmaṇi, as we have seen, was named *Gāmaṇi* although he was not the son of a King. The Kusalānakanda inscription17 of Gamaṇi Tiśa appears to have been inscribed during the lifetime of his father, Raja Abaya. Gamaṇi Tiśa of the Gōṇavatta inscription67 was the son of Āmaṇḍagāmaṇi Abhaya: he did not ascend the throne, but bore

62. *Ibid*, 131.

63. *Manu*, VII, 123.

64. *C.H.U.*, 486: *Economic Life and Progress in Ancient India* by N. Bandyopadhyaya, 234.

65. *M.* 9, 13.

66. *M.* 22, 70 to 71. Anurādhapura and Mahāgāma would have been known as Nagaras even at this time. Other and less important Nagaras were then in existence; the pre-Christian inscriptions at Henannēgala, Tōnigala, Ranagirimaḍa, Yaṭaḥalena, Lenagala and Kōṅgala name the following nagaras:—Kaśabanagara, Acanagara, Tavirikiyanagara, Abayanakara, Nilayanagara, Bataśanagara, and Utinagariya. This last may have been named after Raja Uti of the Bōvattagala inscriptions.

67. *C.J.S.*, II 150, note 1.

the title *Gāmaṇi* during his father's reign. So that *Gāmaṇi* in Ceylon could be said to have been exclusively and undoubtedly a title of kings and princes but for the single, exceptional inscription at Nāval Ār which Parānavitana has cited.⁶⁸ The text of this inscription is as follows :—ATI ACARIYA GAMAṆI PADUMA PUTA PADUMAGUTAŚA PIYADAŚANE NAMA LEṆE ŚAGAYE NIYATE, 2 symbols. Without extending the meaning of *Gamaṇi* in this solitary instance to signify, as in India, the head of a corporation or company of elephant-trainers or elephant-mounted soldiers, since Acariya is itself sufficiently expressive of that office, and without deviating from the meaning the title bears in every other written document in Ceylon, we may assume that *Gamaṇi Paduma* of this particular inscription was a Prince.

If it is correct that in India the status of the *Gāmaṇi* degenerated from that of a Vedic leader of the host to a Mauryan village headman, then Ceylon was not influenced by that process and it would appear that the Indo-Aryan occupation of this Island must be put back to a period earlier than the traditional one of 5th or 6th B.C.

Ma Parumaka

Parānavitana has pointed out that the Royal title *Ma Pārumaka* is a corruption of *Mahāparumaka* which is identical with the Sanskrit *Mahāpramukha* and the Pāli *Mahāpamukha* or *Mahāpāmokkha*. He has also shown that in Pāli literature *Pāmokkha* signified a member of the nobility as well as the president of a guild or corporation.

The early inscriptions of Ceylon contain numerous references to persons bearing the rank of *Parumaka*. Its latest use in an epigraph was early in the 1st century A.C. The period during which the title *Parumaka* was in use was, therefore, 3rd B.C. to the early part of 1st A.C. During this period the title *Ma Parumaka* does not occur in a single inscription : its first appearance is in the second half of the 2nd century, nearly one and a half centuries after *Parumaka* became obsolete. This strange phenomenon is capable, at present, of speculative explanation only.

The first occurrence of *Ma Parumaka* is in the Tammanakanda inscription⁶⁹ of Kaniṭṭha Tissa (167-186), the relevant portion reading :—MA PARUMAKA MAḶI TISA MAHARAJI JIṆAPATI SATARIYA KOṬU DIṆI. But this is the only one of 14 known inscriptions of Kaniṭṭha Tissa in which this title is used. The Habarana inscription⁷⁰ of the late 2nd or early 3rd A.C. (quite possibly in Kaniṭṭha Tissa's time) is dated in the reign of a King styled MA PARUMAKA MAHARAJI, but the King's name is not given. The next King after Kaniṭṭha Tissa to be called *Ma Parumaka* was Mahāsena (274-302) but the number of royal inscriptions of the intervening period of a little over

68. *J.R.A.S.*, July, 1936, 446.

69. *A.S.C.* 7th Report, 47, No. 3.

70. *A.I.C.* 61 ; *E.Z.* III, 179, note 3.

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a century is so small that it cannot be inferred that the title went into abeyance during this period. The Karambagala inscription⁷¹ of Sirimeghavanna commences :—SIDDHAM PUVAYA MA PARUMAKA MAHASENA MAHARAJA (HA) PUTA SIRIMEKA(VAṆA MA)HARAJA APAYA(HA CATA LAGITA) VISITIVANAKA VASAHI. The Bōvattagala inscription⁷² of Jetṭhatissa II also refers to Mahāsena posthumously as *Ma Parumaka* :—(SIDDHA)M MA PARUMAKA (MAHA)SENA MAHARAJA APAYA(HA) PUTA JETATISA MAHA(RAJA APA)YAHA CATA (LAGITA.)

Apaya

Paranavitana has recorded his observations on the title *Aḥaya*.⁷³ It was a synonym for *Abaya* but it was an honorific and not a personal name, and it always occurs after *Maharaja*. Like *Ma Parumaka*, *Aḥaya* appears only in epigraphs and is absent in the Chronicles. Mahāsena was the first king to bear it: in the Bōvattagala inscription already quoted he receives the titles *Ma Parumaka*, *Maharaja* and *Aḥaya*. The form *Abaya* was used in the shorter inscription at Tōnigala.⁷⁴ *Aḥaya* came into use at the very end of the period covered by this paper.

Conclusion

The vogue of *Devanapīya* lasted from the second half of the 3rd century B.C. to the middle of the 1st century A.C. *Gamaṇi*, which had an earlier origin, outlasted *Devanapīya* by about 75 years into the early 2nd century. *Ma Parumaka* was introduced in the latter half of the 2nd century. *Aḥaya* originated at the end of the 3rd or beginning of the 4th century.

Referring to the sobriquets⁷⁵ given to the Kings in the *Mahāvamsa* and particularly to 'Mahallaka', Paranavitana observed that "such epithets, though favoured by the writers of the Chronicles, are never found used in documents written in the lifetime of the personages to whom they referred"⁷⁶. We find, however, in the inscriptions (i) Kākavaṇṇa Tissa called Kakavaṇa Tisa Maharaja two centuries after his death, (ii) Duṭṭhagāmaṇi Abaya called DUṬAKA GAMIṆI ABA RAJA in a 3rd century inscription,⁷⁷ (iii) Mahācūḷī Mahātissa called Macuḍi Raja in his reign,⁷⁸ Mahacuḍika by his son,⁷⁹ and Macuḍika Raja by his great-great-grandson,⁸⁰ (iv) Kuṭakaṇṇa Tissa called

71. *A.I.C.* 21(a) revised; *E.Z.* 179, note 3; *E.Z.* IV, 224.

72. *A.S.C.A.R.*, 1934, para 71(viii).

73. *E.Z.* III, 124, *E.Z.* IV, 114, note 10.

74. *E.Z.* III, 172, note 2.

75. For example, Kākavaṇṇa, Duṭṭhagāmaṇi, Vaṭṭagāmaṇi, Mahācūḷī (*E.Z.* III, 155), Kuṭakaṇṇa, Mahādāṭṭhika (*E.Z.* III, 156), Vaṅkanāsika and Mahallaka.

76. *E.Z.* IV, 216.

77. Kalkulam inscription, *A.S.C.A.R.*, 1933, para 57.

78. *J.R.A.S. (C.B.)*, Vol. 36. No. 98.

79. *E.Z.* III, 156, note 5.

80. *C.J.S.*, II, 150, note 1.

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Puḍakaṇa, Puṭakaṇa, Kuḍakaṇa and Kuṭakaṇa in his own inscriptions and in inscriptions of his son and grandson,⁸¹ and (v) Mahallaka Nāga referred to as Mahala Raja in an inscription of his son.⁸² These sobriquets, as rendered in Pāli in the *Mahāvamsa*, connote some objectionable feature in the King's character or personal appearance, and are, in fact, vulgar nick-names : and it is scarcely credible, if the Pāli is a correct rendering of the original, that the Kings or their sons or their descendants would have tolerated their use in an epigraph or any document whatsoever. Only 5 out of some 15 Kings assigned nick-names in the Chronicles bear similar names in the inscriptions and the explanation appears to be that in these 5 cases the inscriptional names did not carry the opprobrious meaning which their Pāli rendering was later made to convey.

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81. *E.Z.* III, 156 note 5 ; *E.Z.* III, 154 ; *A.I.C.* 20 ; *A.S.C.* 7th Report, 58 ; *E.Z.* I, 61 ; etc;

82. Ganōkanda inscription, *A.S.C.A.R.* 1932, 9.

*The Sutta Nipāta: Five Suttas of Popular Character*¹

I.

PARĀBHAVA SUTTA

THE Parābhava Sutta and the four other suttas which are discussed here belong to a stratum of popular Buddhism, and they emphasise the practical side of Buddhism, laying down secular advice. The Parābhava Sutta is presented as a dialogue between a deity and the Buddha wherein the causes for men's downfall are enumerated by the Buddha (*parā* + $\sqrt{bhū}$: defeat). Though there is no deep philosophy underlying this sutta its advice is based on high ethical principles. The vices and evils denounced by Buddhist and contemporary Indian society are portrayed here as in the Vasala Sutta. It not only reflects the attitude of the age towards social evils such as the lack of filial piety, disrespect for elders and virtuous men, miserliness, arrogance, addiction to wine, women and gambling and general unchastity, but also serves as an index to what was considered wrong in man's dealings with other men right down the ages in Indian society. These very sentiments are expressed and repeated over and over in numerous other works of Indian Literature, especially the Dharmaśāstras and Dharmasūtras, and the sutta is characteristically Indian but not merely Buddhistic. The highly ethical basis underlying the sutta runs through the whole poem. The Mahāmaṅgala Sutta which lays down in the form of "Blessings" the good qualities one should practise is more Buddhistic in its values than this sutta, though the two poems taken together are complementary to each other as they are based on the same ethical principles. The fact that this poem was meant for the common man is seen clearly from the last *pāda* of the concluding stanza, which speaks of a *sivam lokam* as opposed to *sivam padam*, the synonym for *Nibbāna*. The word *ariya* (Sn. 115c) has a wider application than the normal Buddhist term.

The **language** of the sutta is generally archaic. The noteworthy peculiarities are:—the historical infinitive *putṭhum* (Sn. 91c), the historical ppr. gen. sg. *parābhavato* in the refrain, the adjectival form *-vijāno* (Sn. 92ab), the word *bhavam* ("worthy"—Sn. 92a) used as in (Skr. *bhavān*), the primary adjective *dessī* ($\sqrt{dviṣ}$ —Sn. 92d), the verb *roceti* (Sn. 94c) formed after verbs of Class X, the agent noun *anuttṭhātā* (Sn. 96b), the dialectical form *pahu* in the phrase *pahu santo* (being able or capable of *pāra* + $\sqrt{bhū}$, Sn. 98c, cp. *pahuta* Sn. 102a, etc. and in frequent use in the Canon, specially in cpds.), the shorter

1. Extract from "A Critical Analysis of the Pāli Sutta Nipāta Illustrating its Gradual Growth", London University Thesis, 1947.

form *saṃ-* in the cpd. *saññātiṃ* (Sn. 104c, cp. Skr. *svaṃ*—besides *svaka*, P. *saka*, also cp. *sehi*—Sn. 108a ; *saṃ* and *sehi* are poetical forms rather than dialectical variations), the contracted dialectical form *poṣo* (Sn. 110a ; vide Geiger § 30.3), the contracted form *issā* (Sn. 110c), the verb *supati* (Sn. 110c, cp. *supina*—Sn. 360, etc.) and the uncontracted verb of Class X, *paṭṭhayati* (Sn. 114c). All these forms show that the language of the sutta is rather old. It is also evident that there is an abundance of pure poetical forms as distinct from the normal Canonical idiom and that the diction of the whole sutta is highly poetic. The poetical forms of interest are :—*dhammaḍḍessī* (Sn. 92d), *kodhaḥpaññāṇo* (Sn. 96c), *timbarutthaniṃ* (Sn. 110b), etc. The verb interposed between the substantive and the adjective, e.g. *lokaṃ bhajate sivaṃ* (Sn. 115d), *khattiye jāyate kule* (Sn. 114b) etc., the disjunctive employed between the substantive and the adjective e.g. *purisaṃ vā' pi tādisaṃ* (Sn. 112b) or even the position of the demonstrative adjective in the refrain of the stanzas attributed to the Bhagavā, i.e. *paṭhamo so parābhavo*, etc. are all characteristic of the poetic language.

The style of the sutta is neither heavy nor ornate. Though the stanzas are highly antithetical, their style is swift and vigorous. Poetical devices such as simile, metaphor or pun are few, and in fact there is only one metaphor in the whole poem; i.e. Sn. 110b. No definite inference can be drawn from the metre of this poem. The 25 stanzas are in *Anuṣṭubh Śloka*. There is *anacrusis* in Sn. 91c and even quarters of the *Vipulā*-type are found at Sn. 91a, 102a, 110ac, 112a and 114c.² The vigorous *Śloka* metre is best adapted to narrative or dialogue ballads. **Doctrinal Developments** here are almost negligible, but the word *amutthātā* reminds one of the positive concept *utthānaviriya*, a term of early doctrinal import. All the available evidence from language, style and metre suggests an early date for the sutta. The archaic language rich in historical forms, both verbal and nominal and containing dialectical variations, the free and easy style and the old poetic diction unmarred by any artificial poetic devices are in full accord with its early origin.

External Evidence may yield some data regarding a relative date. The comprehensive code of Moral Law promulgated by Asoka has a great deal in common with the Parābhava, Vasala and Maṅgala Suttas. Although Mookerji³ is emphatic that Asoka's "Dharma" was not Buddhism, but his own ethical philosophy, the strange similarity of ideas in his code of ethics and in these suttas is conclusive evidence of the connection between the two. Seeing how far he is influenced by Buddhism and Buddhist Literature the inference that he based his code on suttas such as these or similar literature

2. Helmer Smith, SnA. 640-641.

3. Rādhakumud Mookerji, *Asoka*, p. 68, Gaekwad Lectures, 1928.

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is quite justifiable. The fact that Asoka not only is acquainted with the ideas here, but also inculcates them is proof of the popularity of secular ethics of this type.

II.

VASALA SUTTA

The position of the Vasala Sutta in the vagga immediately after the Parābhava Sutta leads one to the natural inference that an attempt has been made at an arrangement of the suttas according to their subject-matter. Such instances are quite frequent in the Canon. The two suttas, Parābhava and Vasala agree with each other in subject-matter, style, language and metre while the two differ in details regarding the outward form. Vasala Sutta falls into the “*Ākhyāna*”-class, though Parābhava Sutta cannot be strictly called so. The *gāthās* of the former can form an independent sutta without the brahmin being introduced to it at all, but the latter is a pure dialogue, like the Kasibhāradvāja Sutta. In contents the two suttas agree very closely. Lack of filial affections is deplored in identical words (Sn. 98, 124) and so is deception practised on brahmins and holy men (Sn. 100, 129). The four major evils of killing, stealing, falsehood and adultery are condemned in Sn. 117-123 (Vasala). Falsehood is referred to in Sn. 100 and adultery in Sn. 108 (Parābhava). Both poems deal with anger (Sn. 96, 116, 133), pride and arrogance (Sn. 104, 132), miserliness and lack of hospitality (Sn. 102, 128, 130) and various other social evils. The same subject is dealt with in identical words in two instances (quoted above—Sn. 98, 124; 100, 129). The Vasala Sutta deals more fully and in a more comprehensive manner with most of the subjects taken up in the Parābhava Sutta; and mentions more vices and evil practices than the latter. Though both suttas are true to the spirit of early Indian ethics, Vasala Sutta goes a step further in emphasising that one's own actions alone qualify one for condemnation and not one's birth (*jāti*). The *gāthā*,

*Na jaccā vasalo hoti, na jaccā hoti brāhmaṇo
kammanā vasalo hoti, kammanā hoti brāhmaṇo.*

(Not by birth does one become an out-caste or a brahmin, but by one's action one becomes an out-caste or a brahmin) occurs twice in the sutta, and an illustrative anecdote is appended. The *gāthā* clearly conveys the Buddhist attitude to caste and the note struck here is truly Buddhist.

The sutta itself can be divided into four parts:—

- I. The prose introduction—the prelude to the sutta.
- II. The body of the sutta (Sn. 116-136) containing the aphoristic sayings dealing with the various vices and evil practices.
- III. The short dissertation on *kamma* (action) including the colourful illustration of Mātanga.

IV. Aggikabhāradvāja's confession of faith in prose, forming the conclusion of the sutta.

Observations :

The sutta can retain its characteristics and form a coherent whole without parts I, III and IV and yet be called Vasala Sutta. Sn. 136 appears as a crescendo and concluding verse of the sutta. This is further strengthened by Sn. 135 which, in addition to its extra *phādas* sums up the categories of *vasalas* in its last line,

Ete kho vasalā vuttā, mayā vo ye pakāsitā

(These whom I have declared unto you are *vasalas*). This summing up may be compared with Sn. 269, the concluding *gāthā* of Mahāmaṅgala Sutta. In both instances the refrain occurs up to the *gāthā* immediately preceding the respective stanzas, and thus Sn. 135 provides a suitable conclusion to the sutta. The next stanza too, which in a dramatic manner breaks down the age-old barrier of caste and attributes baseness to base actions rather than to birth, probably belonged to the original sutta. The illustration (*nidassana*) that follows appears as a separate sutta or as a separate section appended to the sutta at a subsequent date. The position of these six stanzas at the end of the sutta makes this suggestion very plausible. The repetition of Sn. 136 at Sn. 142 is merely for the purpose of emphasising this essentially Buddhistic aphorism. It also provides a suitable climax to the enhanced sutta.

There is no doubt that the episode of Mātāṅga is borrowed from popular tradition. The story of Mātāṅga occurs in the Anuśāsanika-parvan of the Mahābhārata (Mbh. XIII, 3, 198 ff.), but it differs considerably in details from that in Sn. Both Sn. and Mbh. agree on his lowly birth (*Caṇḍālayonyāṃ jāto*, Mbh. XIII, 3, 198). The outline of the legend in Mbh. is:—"Mātāṅga, son of a brāhmaṇī was informed by a she-ass that he was in reality a *caṇḍāla*, and in vain tried by way of penance to become a brahmin; at last he succeeded in becoming Candodeva".⁴ The existence of a parallel legend in Mbh. need not necessarily imply that either was based on the other. The probability is that both versions go back to an earlier tradition (probably oral) and the two as they are, represent parallel developments. (Also cp. Mātāṅga Jātaka).

On the other hand, the position of Sn. 124 and 129 seems different. The topic under discussion in Sn. 125 is cruelty by word or deed to one's own kith and kin. It seems probable that the connected idea of not supporting one's aged parents has been transported here, and the stanza borrowed wholesale. Similarly, Sn. 129 appears as an interpolation. The stanza that immediately precedes it (Sn. 128) denounces the action of the person who does not return hospitality to his erstwhile host; and the stanza that follows it (Sn. 130) condemns the person who, instead of feeding them abuses brahmins or *samaṇas*

4. s.v. Sörensen, Index to the Names in *Mahābhārata*.

who come to his door at meal-time. Both these stanzas deal with the feeding of guests or mendicants, but Sn. 129 speaks of the deception practised on mendicants, religious or otherwise, by uttering falsehood. Although Sn. 129 disturbs the logical trend of the two stanzas on either side of it, the occurrence of the phrase, *yo brāhmaṇaṃ vā samaṇaṃ vā* in Sn. 130 seems to have been considered sufficient reason to introduce Sn. 129 which incidentally begins with the same phrase. The inference that Sn. 124 and 129 are interpolations implies that the Parābhava Sutta is earlier than the Vasala Sutta. This need not necessarily be so. The only legitimate conclusion is that the final redaction of the latter took place after the composition of the former. The position of these two stanzas in the two suttas sheds some light on this point. In the Parābhava Sutta, these two stanzas dealing with similar topics, occur as consecutive answers given by the Bhagavā, whereas in the Vasala Sutta they are separated by four other stanzas, two of which (i.e. Sn. 126, 127) deal with a different topic altogether.

The similarity of ideas in the two poems does not call for particular attention on account of the fact that they deal with practically the same subject. Language, style, metre and syntax too do not help in determining the age of the two poems in relation to each other. It is solely on the data provided by these two stanzas and the occurrence of the illustrative episode of Mātanga, (when the sutta proper could end at Sn. 135ef where the categories of *vasalas* are summed up, or at Sn. 136 which provides a fitting climax) it can be said that the sutta may have undergone a change at the hands of a subsequent editor. The stanzas Sn. 137-142 appear as a subsequent addition made by a later editor. It is quite probable that the earliest form of this sutta did not include these six stanzas, Sn. 124 and 129, nor perhaps the prose sections. Judging from internal and external evidence the earliest versions of both suttas appear contemporary.

As stated earlier the **language** of the *gāthās* is quite similar to that of the Parābhava Sutta. There are old historical forms like the opt. 3 sg. *jaññā* (Sn. 116d-134d), the denominative *manāyitaṃ* (Sn. 119b), shorter inst. sg. *theyyā* (Sn. 119c—Vedic *steya* nt.), the ppr. pass. *cujjamāno* (Sn. 120b), the contracted verb *ādeti* (Sn. 121c) besides *ādiyati* (Sn. 119c), the absolutive *bhuttvāna* (Sn. 128b—also poetical), the ppr. medial of the desiderative *nijigim-sāno* (Sn. 131c), the pronom. adj. inst. sg. *sena* (Skr. *svena*, cp. *saṃ* Sn. 104c, *seli* Sn. 108a, 132c), the inst. sgg. *jaccā* (Sn. 136ab, 142ab), *duggaccā* (Sn. 141d), *kammanā* (Sn. 136cd, 142cd) and *amunā* (Sn. 137a cp. also *amunā*) and 3 pl. A. pada *upadissare* (Sn. 140d). Besides the poetical forms like *bhuttvāna*, *upadissare*, *sena*, etc. there occur in this sutta as in the previous one many cpds. e.g. *pāpamakkhī* (Sn. 116b), *viṇṇaditṭhi* (Sn. 116c), *paṭicchannakam-manto* (Sn. 127c), etc. The sutta preserves the old Pāli idiom, e.g. *pāṇe dayā*. (Sn. 117c), *yaṃ paresaṃ manāyitaṃ* (Sn. 119b), etc. Often the same idiom,

is seen to occur in Canonical prose, e.g. *attahetu*, *parahetu*, *dhanahetu* . . . (Sn. 122ab), *kinckikkhakamyatā* (Sn. 121a, cp. *lābhakamyatā*). There is an irregular acc. sg. of the ppr. *vajataṃ* (Sn. 121b, v.l. *vajantaṃ* vide Geiger, § 130; the Comy. explains it as *gacchantam*—SnA. 179). There is also an abundance of Vedic enclitics like *ve* and *ha-ve* (*vai* and *ha vai*). All these characteristics of old Pāli and the general diction of the poem which is archaic suggest an early date for the sutta.

The **Style** and **metre** of the poem are similar to those of the Parābhava Sutta. The metrical irregularities are few; i.e. *odd* quarters at Sn. 118a, 121a and 123c and an *even pūda* at Sn. 124c.⁵ Evidence from language, style and metre shows that the two poems are contemporary, though on careful examination some parts of the Vasala Sutta appear to be younger than the Parābhava Sutta.

No **doctrinal developments** as such are noticeable in the sutta. However, in spirit it is more Buddhistic than the former. The four major evils of killing, stealing, adultery and falsehood have already been noticed to occur in Sn. 117-123, in same order as the first four precepts, in addition to the other allied misdeeds as highway robbery and plunder. In spite of the popular nature of the sutta the occurrence of the two terms, *ditṭheva dhamme* and *sampārāye* (Sn. 141ab) suggests some development in Buddhistic ideas; but these terms are of no great value as they are equally common in early Indian Literature. The words *vipammadiṭṭhi* (Sn. 116c), *moha* (Sn. 131b), *arahā* and *anarahā* (Sn. 135ab) are not used in their specialized meaning as found in Buddhism. It is significant that Sn. 134b speaks of the *sāvakas* and not of the *Saṅgha*, and it is probable that this sutta is quite distinct from monastic Buddhism. The phrase *khattiyā brāhmaṇā* in Sn. 138, like the Canonical phrase *samaṇa-brāhmaṇā*, unconsciously suggests the order of precedence as the Buddhists conceived it,⁶ though the sutta itself repudiates the stigma attached to low birth. The mention of *devayāna*, the path leading to the *devas* in Sn. 139 shows to some extent how far the sutta echoes the then-current Indian thought. It is clear that the goal aimed at is *brahmaloka*. The earlier Upaniṣads⁷ mention the two paths by which a departed soul proceeds to enjoy the fruits of his actions. They are the *devayāna* or the *arcirmārga*, the path of light leading to the plane of Brahman or *satyaloka* and the *pitryāna* or the *dhūmamārga*, the path of darkness leading to the region of the moon or *caudraloka*. When Indian thought evolved and gradually established the identity of Self with Brahman, *devayāna* became the path leading to the union with the Highest.⁸ It is not clear what stage of development in Indian

5. Helmer Smith, *ibid.*

6. The sequence *Khattiyā, Brāhmaṇā, Vessā, Suddā* occurs many times in M. and D.

7. Bṛhadāraṇyaka Upaniṣad, VI. 2, 2; IV. 11, etc.

8. Also vide Radhakrishnan, *Indian Philosophy*, Vol. I, pp. 252-255.

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thought Sn. 139 reflects, yet the final goal mentioned is *brahmaloka*. Perhaps *sivam lokam* (the world of happiness at Sn. 115) also refers to the same state.⁹ The Commentator rightly interprets it as *devalokam* (SnA. 173). Both these references show that these poems are not doctrinal dissertations but suttas meant for the inculcation of popular ethics.

All the available **external evidence** too shows that the sutta belongs to the realm of popular ethics. It contains ideas common with the Epics and other Sanskrit literature. Sn. 122 may be compared with Manu. VIII, 13 ; Sn. 128 with Mbh. XIII, 126 ; 27 ; and Taittirīyaśikṣāvallī 11, 2 ; and Sn. 135 with Manu. X, 12 ; 16 and 26, etc. The observations made with reference to the Parābhava Sutta that Asoka's moral code apply here too. The *gāthās* appear to be very old in the light of internal evidence and the testimony from the Edicts suggests that they should be at least pre-Asokan.

III.

MAHĀMAṆGALA SUTTA.

It has already been stated that the Mahāmaṅgala Sutta (also known as Maṅgala Sutta) is complementary to the Parābhava Sutta. Both suttas contain a short prose introduction with identical words, and a *devatā* is introduced as the Buddha's interlocutor. The only difference in form, between the two suttas is that the Maṅgala Sutta unlike the other, is not a proper dialogue, for, the *devatā* is represented as asking only one question to which the Buddha gives an uninterrupted reply. The two suttas categorically state the various factors which lead to one's downfall and which are considered as blessings respectively, and conclude didactically summing up the enumeration. A regular feature in the poems is the refrain which is a feature in the greater part of the Vasala Sutta. The sutta lays emphasis on good living and gives practical advice. It is essentially didactic like the gnostic poetry of the Sanskrit literature. The word *maṅgala* conveyed to the brahmins anything that was considered as auspicious. In every society, whether past or present, Occidental or Oriental, there are certain beliefs and superstitions to which people attach some importance in varying degrees. *Maṅgala* to a brahmanical society in ancient India represented all the sights and sounds, actions, ritual and ceremonies which they deemed holy or auspicious. In this sutta Buddha is seen giving a new value to the term *maṅgala* employing it to stress the importance of a righteous living. The sutta does not attempt to teach anything new, but inculcates in a different form the ethical principles already known to the Indians. There is no deep philosophy underlying the sutta, yet it has to some extent a Buddhist background. The items *kālena dhamma-savaṇam* (Sn. 265c, listening to the *dhamma* at the proper time) *kālena dhamma-sākaṅkha* (Sn. 266c, religious discussions at the proper time), *samaṇānaṃ ca*

9. As stated earlier, this term cannot refer to *nibbāna* as there is no mention of a "*nibbāna-loka*" anywhere in the Canon. It is either *nibbāna-pada* or *nibbāna-dhātu*.

dassanaṃ (Sn. 266b, paying homage to the monks), *ariyasaccāna dassanaṃ* (Sn. 267b, an insight into the *ariyan* -noble- truths) and *nibbānasacchikiriya* (Sn. 267b, the realization of *nibbāna*) are decidedly of Buddhistic application though *dhammacariyā* (Sn. 263a, living in accordance with the *dhamma*), *appamādo ca dhammesu* (Sn. 264c, perseverance in doing good deeds) and *patirūpadesaṇṇa* (Sn. 260a, living in a suitable region) are capable of being given a wider interpretation than suggested by the Commentator (Pj. I. 123-157). The perfect balance of mind under all conflicting circumstances (Sn. 268) is again a characteristically Buddhist concept. The sutta thus is essentially Buddhistic although it deals with popular ethics.

This sutta occurs *verbatim* in the Khuddaka-pāṭha and the Paritta-pāṭha¹⁰. It is also one of the *Tun-sūtraya* (the Three Suttas, the other two being Ratana and Metta Suttas), used at *Pirit* ceremonies; which shows that the sutta has enjoyed great popularity from comparatively early times (when Khp. was compiled), up to the present day.¹¹ There is a *jātaka* known as Mahāmaṅgala Jātaka (No. 453) which the Commentator (J. IV. 72-73) associates with the Maṅgala Sutta and quotes the opening *pāda* of the *devatā*'s question mentioning that the total number of *maṅgalas* enumerated in the sutta is 38; but it has no connection whatsoever with the present sutta, and it is in reality a dissertation on happiness in accordance with Brahmanical ideas of life rather than Buddhistic principles.

There are no specific linguistic forms in the sutta that may be classed as very ancient, nor are there signs of lateness in the language. It is the normal Gāthā-Pāli idiom with the usual poetic diction. The stanzas are highly rhythmical and melodious. There is no involved syntax and the language is simple. The few linguistic forms which call for attention are:—*acintayam* (Sn. 258b) the historical Aorist 3 pl., *sothhānaṃ* (Sn. 258c) acc. sg. of *sothhāna* nt. cp. Skr. *svastyayana*, *sovacassatā* (Sn. 266a) abstract of the secondary form from *su-vacas* and the usage of *dassanaṃ* (Sn. 266b, 267b) in its literal and applied meanings of visiting to pay homage and insight into

10. The Paritta-pāṭha is a collection of suttas varying in number from 28 to 32, taken from various parts of the Canon. It is known in Ceylon as the Pirit-pota (the Book of Pirit). Also *vide* Winternitz, *History of Indian Literature*, Vol. II, p. 80.

11. Khp. as a collection cannot be of very early date. From the negative evidence that no mention of it is made in the Canon or in Miln. it may be inferred that it came into being sometime later, though argument from silence is not always very satisfactory evidence. On the other hand, Miln. mentions Sn. by name (*vide* U.C.R. Vol. VII, 3), and it is quite probable that the author of Miln. knew Sn. as it exists to-day. Miln. 349 mentions *Khuddaka-bhāṇakā*, but this is no evidence for the existence of Khp. It only refers to a collection of minor pieces, probably the greater part of what is now known as Khuddaka Nikāya, just in the same way as *Dīgha* or *Majjhima-bhāṇakā* referred to the reciters of long or medium sized suttas which were invariably included in the Dīgha and Majjhima Nikāyas respectively. Thus, the earliest collection in which Maṅgala Sutta was included is probably Sn. though it may have existed earlier as an individual sutta.

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(vision of), respectively. The phrases *mātāpitu-upatṭhānaṃ* (Sn. 262a), *ariyasaccāna-dassanaṃ* (Sn. 267b) and *sabbattha-m-aparājitā* (Sn. 269b) betray the flexibility of *sandhi* in Pāli, specially in metrical exigencies. The metre of the poem is *Anuṣṭubh Śloka*, and the few metrical irregularities are: one instance of *anacrusis* at Sn. 260a and two instances of *even* quarters at Sn. 260c and 265c. The sutta contains a few special Buddhistic terms in addition to those that are in common with contemporary Indian religious systems. *Ariyasaccāna-dassanaṃ* (Sn. 267b) is a definite reference to the Noble Truths of Buddhism, and *nibbānasacchikiriya* (Sn. 267c) is the attainment consequent on the obtaining of an insight into the *Ariyan* Truths. Other concepts such as *taṭṭho* (ascetic practices) *brahmacariyā* (celibacy) at Sn. 267a, *attasammāpaṇidhi* (a thorough development of personality—Sn. 260c), *khanti* (forbearance—Sn. 266a) etc. are of general Indian origin and therefore are of no special importance.

External Evidence consists mainly of a comparison with the Moral Law of Asoka promulgated in the Edicts. Asoka's *dharma*, like the sayings in the three suttas, Vasala, Parābhava and Maṅgala, is not any religious system peculiar to one sect or school, but contains practical and doctrinal advice embracing the various relations of life. However, a close comparison shows that Asoka had drawn his material from a literature very similar to these suttas. From his acquaintance with certain parts of the Canon i.e. the seven Dharmaparyāyas some of which have been traced to Sn. (*vide* U.C.R., Vol. VI, 4) it may be inferred that he was equally acquainted with these suttas. The following table¹² shows to what extent the contents of these suttas can be compared with Asoka's *dharma* :—

<i>Asoka :</i>	<i>Sutta Nipāta :</i>
1. Obedience to (a) elders R.E. IV, ¹³ (<i>anupratī</i> <i>paṭipati</i>) P.E. VII, (b) teachers R.E. XIII, P.E. VII.	Sn. 259b, <i>paṇḍitānaṃ ca</i> <i>sevanā</i> .
2. Respect (a) of pupils— <i>antevāsī</i> —towards their <i>gurūs</i> M.R.E. II, (b) towards <i>gurūs</i> R.E. IX.	Sn. 259c, <i>pūjā ca pūjaney-</i> <i>yānaṃ</i> . 265a, <i>gāravo</i> .
3. Proper treatment towards (a) ascetics, both <i>brāhmaṇa</i> and <i>samaṇa</i> R.E. IV, P.E. VII ; (b) relations M.R.E. II, R.E. IV, XIII.	Sn. 100, 129, 130. Sn. 98-124, 102, 104c, 125.
4. Charity (<i>dānaṃ</i>) R.E. III, VII, VIII, IX, XI.	Sn. 263a, 102c.
5. Abstention from slaughter of and violence to- wards living beings, R.E. III, IV, XI, P.E. VII, R.E. IX, IV, P.E. VIII, R.E. XIII, M.R.E. II, cp. R.E. III, IV, IX, XI, XIII and P.E. VII.	Sn. 117-118.

12. This table is based on Rādhakumud Mookerji's analysis of the Moral Law of Asoka in his Gaekwad Lectures, pp. 69 ff.

13. R.E. : Rock Edict, P.E. : Pillar Edict, M.R.E. : Minor Rock Edict.

- | | |
|---|---|
| 6. Kindness (<i>dayā</i>) P.E. II, VII. | Cp. Metta Sutta, Sn. 143-153. |
| 7. Truthfulness (<i>satyaṃ</i>) M.R.E. II, P.E. II, VII. | Sn. 122c, 100c, 129c. |
| 8. Gentleness (<i>mārdavaṃ</i>) R.E. XIII, P.E. VII. | Sn. 143d. |
| 9. Gratitude (<i>kṛtajñatā</i>) R.E. VII. | Sn. 265b. |
| 10. Attachment to <i>dharma</i> (Asokan morality), R.E. XIII. | Sn. 92c, 263a, 264c, 265c, 266c. |
| 11. Purity of heart (<i>bhāva sūddhi</i>) R.E. VII. | Sn. 260c, cp. <i>yakkhassa sūddhi</i> Sn. 478, 876. |

Of the requisite qualities mentioned in P.E. I for the attainment of happiness in this world and the next, *dharma-kāmatā* occupies the first place (No. 10 in Table). *Suśrūṣī* (obedience), No. 1 in table *bhaya* (fear to do wrong—cp. *ottappa* in Pāli, Sn. 133c, etc.), and *utsāha* (effort—cp. *utthāna-viriya*, see *anuttāhātā*, Sn. 96b) are three others. In R.E. XIII Asoka summarises his 'Dharma' as 1. *Akṣati* (non-injury—cp. Sn. 117-118) 2. *saṃyama* (restraint, quite frequent in the *Muni-Ballads* of Sn. cp. Sn. 264, etc.) 3. *samācāraṇaṃ* (impartiality) and *mārdavaṃ* (gentleness; No. 8 in table). On these and numerous other points (enumerated by Mookerji, *Asoka*, pp. 69-78) Asoka's "Dharma" bears a strong resemblance to the ideology of these suttas. Although one may not be quite certain of the existence of Sn. as a collection in Asoka's time, there is no doubt that many of the suttas constituting Sn. were anterior to Asoka. It has already been noticed that Asoka had been influenced by a literature quite similar to these popular ethics. The internal evidence reveals that the suttas are old, and that they preserve definite characteristics of the poetic language which probably preceded the standardised Canonical Pāli prose. It is thus highly probable that these suttas were known to Asoka.

IV.

METTA SUTTA

The Metta Sutta, another member of the triad of Suttas, is also found in Khp. as No. 9. The Commentator's introduction which is historically of a lower level of interpretation states that the sutta was preached by the Buddha as a topic of meditation to monks and to serve the purpose of a *paritta* to ward off dangers arising from evil spirits (Pj. I. 231-232). There is no doubt that the sutta provided a useful topic of meditation for both monks and laymen, and in subsequent years, even as early as the Commentarial epoch, or perhaps earlier, it was used as a *paritta*. Its inclusion in Khp., a handbook of popular Buddhism, indicates that this sutta, like its two companion suttas, was very popular from comparatively early times. The sutta inculcates the practice of *mettā* (amity, or love to all beings). The theme is an early tenet of Buddhism and the idea corresponds to *dayā* of the Sanskrit epics and other allied literature. Even before the four *Brahma-vihāras* were fixed and

standardised the term *mettā* is to be met with in association with such concepts as *upekkhā*, *karuṇā*, *vinuṭṭi* and *muditā* (Sn. 73). The theme is developed from various aspects in the sutta :—(a) Wishing happiness and well-being to all creatures irrespective of their size or form or stage of growth (*bhūtā vā sambhava-sī vā* : creatures come into being or in their embryonic state, Sn. 147c). (b) The negative aspect of the absence of ill-will towards them (Sn. 148). (c) The development of boundless thoughts of love, as deep as maternal affection to all creatures (Sn. 149). (d) The diffusion of unobstructed thoughts of loving kindness in all directions at all times (Sn. 149-150). It is extolled as the *brahma-vihāra*—the highest abiding¹⁴ (Sn. 151). The 10 opening lines of the sutta are of an introductory nature. They describe the *atthakusala*—he who is bent on his welfare. Though *santaṃ padam*—tranquilled state (Sn. 143)—need not necessarily always signify *nibbāna*, the qualifying remark that the *atthakusala* should be detached from family life (Sn. 144d) suggests that the poem was primarily meant for the monks. A descriptive classification of creatures is made at Sn. 146 and another mutually exhaustive and more precise division at Sn. 147c.¹⁵ The development of a mental attitude (*mānasam bhāvayati*, cp. Sn. 149d, 150b) consisting of the thoughts of love is the keynote of the poem and it concludes with an exhortation to make an end of birth (Sn. 152d).

As far as **linguistic evidence** goes what has been said of the other suttas applies here too. There is ellipsis in the opening stanza of the sutta (Sn. 143). The form *additṭhā* at Sn. 147a has *-dd-* either *metri causa* or as a consonantal doubling after the negative prefix; cp. *appasāda*. The indefinite adverb *katthacinam* (Sn. 148b) contains a contamination of two indefinite suffixes *cid* and *cana*. There are two forms with the contraction of the final *-āya* > *-ā* viz. *vyārosanā* and *paṭighasaññā* : (Sn. 148c). The regular form *niya* for Vedic *nija* (also P. *nija*) through Prakrit *nīa* (*vide* Geiger §36) occurs. Besides these there are other forms *sayāno* (Sn. 151b) historical ppr. medial, the affirmative particle *jātu* (Sn. 152d) which is practically confined to poetry, Vedic forms as *āyusā* (Sn. 149b) and a wealth of optative forms illustrative of various types used in Pāli; viz. 3 sg. *assa* (Sn. 143d), 3 sg. *samācare* (Sn. 145a), *anurakkhe* (Sn. 149b), *bhāvaye* (Sn. 149d, 150b), medial 3 sg. *nikubbetha* (Sn. 148a)

14. Mrs. Rhys Davids (in "What was the Original Gospel of Buddhism?") thinks that this line preserves "a metrical legacy" of the disciples of an unknown Brahmin teacher, and sees God in the epithet *brahma*. She translates Sn. 151d as,

"God have they here this living called".

15. It is significant that the classification into the four types *jalābuja*, *aṇḍaja*, *saṃsedaja* and *opapātika* (viviparous, oviparous, moisture-born and of spontaneous birth), a division known to be in use comparatively early in India, does not occur here. It may perhaps indicate that the Buddhist writers had not yet adapted it in their works during the time of these suttas, though the classification occurs in prose sections of the Canon (D. III. 250, M. I. 73, S. III. 240, etc.).

iccheyya (Sn. 148d), *adittheyya* (Sn. 151c) and 3 pl. *upaddaveyyum* (Sn. 145b). There also occurs an inorganic sandhi at Sn. 151d, viz. *idha-m-āhu*.

The style of the sutta is free and easy to a great extent, and the ideas are expressed lucidly. The sutta being didactic, the greater part of it is explanatory and injunctive. Though it contains two long lists (Sn. 143c-144d, 146t-147d) no laboured effect is produced, as there is an easy flow of words along with its rhythmic effect. There is only one simile in the whole poem (Sn. 149ab) and it appears quite apt, as it emphasises the central theme. The poem is written in a metre described as "*Āryā (Gīti)*", by Helmer Smith.¹⁶ Yet the metre here is not the proper classical *Gīti* or any of its sub-types including *Āryā*. Normally the syllabic instants of the first and third *pādas* of the *Gīti* metres are limited to 12, whereas the other two *pādas* vary from 15 to 18. None of these 10 stanzas corresponds to any of the varieties of the classical *Gīti* metre, and at best what is found here is a very free modification of the *Āryā-Gīti*. The syllabic instants of the Metta Sutta vary from 11, 17, 13, 17 in Sn. 152 to 16, 17, 15, 18 in Sn. 147. In two instances the number of *mātrās* (syllabic instants) in a full stanza is less than 60, in two 60 (the prescribed number in Sanskrit poetics) and in the other six over 60. However it is worth noting that this metre stands "between the more archaic technique of the śloka-triṣṭubh and the jagatīś, atijagatīś, etc. of the late-canonical and semi-canonical compositions".¹⁷

Doctrinal developments.—In its tone and outlook the sutta bears signs of antiquity. The term *atthakusala* (Sn. 143a) probably refers to the *attha* (weal) pertaining to both this world and the next. The emphasis on a life which is beyond the censure of the wise (Sn. 145ab) may suggest that the *attha* was primarily connected with this world. The Commentator, however, interprets *santaṃ padaṃ* (Sn. 143b) as *nibbāna* (Pj. I. 236) merely because the term is used as a synonym for the latter. Yet, the state of mental tranquillity referred to here is capable of a more general interpretation. This is further supported by Sn. 143cd-145ab, which do not apply to one who has attained *nibbāna* : and therefore *attha* should be interpreted as benefit here on earth rather than well-being after death or even *paramattha* the *summum bonum*.

The ideal envisaged in Sn. 144 is that of the ascetic or the *muni*. This certainly reflects early material. The next two lines which allude to public opinion are not wholly inconsistent with the *Muni*-ideal, though as a rule the *muni* is not influenced by the outside world (cp. Sn. 213b, 214b, etc.). This difference in attitude does not imply a later phase of development, nor does it indicate any real departure from the ideal in early Buddhism. The probability is that the sutta was meant for a wider circle than ascetics alone, and the authority of the *viññū* had to be reckoned with in preparing one's self for

16. Op. cit. (SnA. 637).

17. *Ibid.* Helmer Smith.

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the tranquil-state of mind which would be the basis for the contemplation (*mānasaṃ bhāveti*) on *mettā*. The concept of *mettā* is suggested to be of pre-Buddhistic origin,¹⁸ but Buddhism and its senior contemporary religion Jainism were responsible for the widespread movement of not only non-injury to living things, but the actual practice of amity towards them. The phrase *mānasaṃ bhāveti* (develop a frame of mind; cp. *manīṣā* Rv. X. 129) is not in frequent use in the language, and the word *mānasa* used absolutely is semi-technical in character (s.v., P.T.S.). Neither the concept *mettā* nor the term *mānasa* yields any conclusive data. The two words *diṭṭhi* and *dassana* (Sn. 152) are used as mutually contradictory terms from the earliest times; ¹⁹ they are diametrically opposed to each other in their semantic development though they are derivatives from the same root (*ḍṛś*). There is hardly an instance of *diṭṭhi* being qualified as *sammā* or *micchā* in all the 45 occurrences of the word in Sn. The term *diṭṭhi* embraces all philosophical views and speculations which were (perhaps later) designated as *micchādiṭṭhi*, while *dassana* is a more precise concept signifying insight. The latter has no bearing on the question of the difference between *sammādiṭṭhi* and *micchādiṭṭhi*.

External evidence.—The only form of external evidence available is the occurrence of similar or parallel ideas in other works. The idea *mettā* occurs frequently in the Canon in the list of *Brahmavihāras*, and also singly in various other contexts; e.g. *mettā-ceto-vimutti* at D. I. 251, S. II. 265, A. IV. 150, It. 20, etc., *mettā-sahagatena cetasā* at D. I. 250, etc., S. V. 115, A. I. 138, etc., *mettaṃ cittaṃ* at D. I. 167, III. 237, Sn. 507, Vin. II. 110, A. II. 72, Th. Th2, etc. and *mettā-bhāvanā* at Miln. 199. At S. I. 75 Pasenadi Kosala declares to Mallikā that the dearest thing to a person is his own self. At the end of the conversation they go to the Buddha who advises them

*Sabbā disānuṣarigamma cetasā
n'ev'ajjhagamā piyataram attanā kvaci,
evaṃ piyo putthu attā paresaṃ
tasmā na hiṃse param attakāmo.*

(Having mentally surveyed all directions I have not found anywhere, anything so dear to me as my own self. So is it to the others that each one's self is dear. Therefore let him who loves his own self not bring harm upon another). Cp. Sn. 705, Dh. 129, 130. Here the standard of judgment in refraining from injury to others is one's love for one's own self. The same idea is reflected

¹⁸ Mrs. Rhys Davids, *op. cit.*

¹⁹ Mrs. Rhys Davids in her translation of Khp. in the Minor Anthologies considers this stanza late for reasons she adduces in her introduction.

in Yajñavalkya's advice to Maitreyī in Brhadāraṇyaka Upaniṣad (Brh. II. 4: IV. 5) cp. Bhg. VI. 32 which conveys the same idea. A passage occurring at Mbh. XI. 7, 1

*Na hy ātmānam priyataraṃ kiñcid bhūteṣu niścitam :
aniṣṭaṃ sarva-bhūtānāṃ maraṇaṃ nāma Bhārata :
tasmāt sarveṣu bhūteṣu dayā kāryā viśācitā.*

(Undoubtedly there is nothing so dear to beings as their own selves: indeed, death is most unpleasant to all creatures, O son of Bharata. Therefore let the wise man extend kindness to all creatures) is quite similar to the passage at S. I. 75.

In all these instances the reason adduced for one to refrain from harming others is the love one bears to one's self. On the other hand in the Metta Sutta the practice of *mettā* is not prompted by any such motives. It is *mettā* for its own sake. It is not possible to ascertain which idea was earlier. Though the concept *mettā* occurs frequently in early Canonical works *mettā bhāvanā* is scarcely mentioned. As a term *mettā bhāvanā* may be of later growth, yet the idea seems old. The creation of an active mental force (*mānasaṃ*) consisting of thoughts of love is fundamentally the same as *mettā bhāvanā*, and is perhaps the predecessor of the latter term.²⁰

V.

RATANA SUTTA

The popular character of this poem is seen in the opening lines, *yānīdha bhūtāni* etc. The *bhūtas* (spirits) are addressed and their goodwill (*sumanas*) is invoked. They are requested to extend thoughts of friendliness (*mettaṃ karoṭṭha*) to the human race. The naïvity and the simplicity of the two opening stanzas are reminiscent of the Vedic hymns. This is specially true of,

*divā ca ratto ca haranti ye baliṃ,
tasmā hi ne rakkhatha appamattā*

(who bring you oblations day and night: therefore protect them arduously). Every word of these two stanzas is full of meaning and of echoes. Although these beings are invoked for protection, the central theme is the exaltation of the *Three Ratanas*, Buddha, Dhamma and Saṅgha. One may see in this sutta a synthesis of popular cults and Buddhism, yet the synthesis is very remote, far from being complete. There is no real adaptation of Buddhism to popular cults and ritual, but on the contrary popular Buddhism has taken for granted a prevalent cult. However, with time there sets in a change and

20. Miss I. B. Horner in her Review of *Woven Cadences* (Hibbert Journal, October 1945) points out that the formula *uddhaṃ adho ca tiriyaṃ* is found only at Sn. 150 in connection with *mettā*. However, it is found in other passages without any reference to *mettā*; e.g. 537, 1055, 1068, etc.

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this sutta along with many others becomes a *paritta* (a ward-rune) and thereby part and parcel of every-day Buddhism. Its inclusion in the "Three Suttas", the Piritpota and the Khp. has already been mentioned.

The invocation of blessings in the sutta is in the form of a *saccakriyā* (asseveration by truth) viz. *etena saccena suvatthi hotu*. A remarkable feature of the poem is the evidence of a growth of a complete Buddhist doxology. The term *Tathāgata*, an epithet often applied to the Buddha is extended to both the Dhamma and Saṅgha.²¹ Seven of the 12 stanzas Sn. 224-235 devoted to the Three *Ratanas* are in praise of the third "Jewel," the Saṅgha. This may probably indicate a conscious effort on the part of the Saṅgha to assert its importance. The members of the Saṅgha are spoken of as the disciples of the *Sugata* who are worthy of offerings (*te dakkhiṇeyyā sugatassa sāvakā*—Sn. 227c). They are the recipients of *dāna* or *yañña* in Brahmanic terminology,²² and as such form an important factor for man's acquisition of merit (*anuttaraṃ puññaakkhettaṃ lokassa*). It is obvious that the sutta reflects a time when there had come into existence an organised coenobitic Saṅgha as opposed to forest dwelling anchorites—*nunayo*. The invitation extended to the *bhūtas* to join in the worship of the Buddha, Dhamma and Saṅgha (who are honoured by gods and men—*devamanussapūjita*) not only betrays the popular nature of the sutta, but shows that its composition had taken place when worship formed an essential factor in the religion.

The sutta can be divided into three parts, viz. I. Sn. 222-223, II. Sn. 224-235 and III. Sn. 236-238. Part I forms the introduction which consists of an invitation to the *bhūtas* whose *mettā* is invoked. These are the only stanzas of the poem which resemble the Vedic hymns closely. As in the Vedic hymns (a) the opening lines form the invocation (Sn. 222ab), (b) a request is made for their goodwill (Sn. 222cd), (c) their *mettā* is solicited (223b), (d) they are reminded of services rendered to them (Sn. 223c) and finally (e) their protection is sought. Part II can be further divided into (a) Sn. 224-226 (b) Sn. 227-235. (a) Sn. 226 marks the final stanza said to have been uttered by the Buddha according to one tradition quoted by the Commentator, *Apare pana vadanti : ādito pañc' eva gāthā bhagavatā vuttā, sesā parittakaraṇasamaye Ānandattherenā ti*. (Others maintain that only the five opening stanzas, viz.

21. The three formulas used in the Buddhist daily prayer in praise of Buddha, Dhamma and Saṅgha, viz. *Iti 'pi so bhagavā -pe- svākkhāto bhagavatā dhammo -pe- and supāṭiṇṇo bhagavato sāvakasaṅgho -pe-* respectively, culled from the Canon (e.g. D. II. 93 ff., III. 5, A. I. 207 ff., II. 56 ff., IV. 406 ff., etc.) may be compared with this. Also cp.

*Ye ca Buddhā (dhammā, saṅghā) atīrā ca,
ye ca Buddhā (dhammā, saṅghā) anāgatā,
paccuppannā ca ye Buddhā (dhammā, saṅghā),
ahaṃ vandāmi sabbaḍā.*

22. Cp. Nd2. 523, *yañño vuccati deyyadhammo* and Sn. 569d, *saṅgho ve yajataṃ mukhaṃ*.

Sn. 222-226, were uttered by the Blessed One, and the rest by the Elder Ānanda on the occasion of the *paritta*-recital.—Pj. I. 165). It is interesting to note that up to this point Saṅgha is not mentioned and it is noteworthy that the only other references to an organised Saṅgha in Sn. are at 519d and 1015b (the latter in the late prologue to the Pārāyana).²³ Although there may be the possibility of some truth underlying this tradition, Sn. 222-226, by themselves, do not form a satisfactory unit as a sutta. On the other hand if Sn. 223 is rejected as a late stanza, since the stanzas corresponding to it in the Mahāvastu version occur somewhat later in the sutta (i.e. vv. 15-16 ; Mvastu. I. 294), it would be possible to infer that Sn. 227 marks the last stanza of a complete unit, thus partly agreeing with the tradition mentioned above. (b) Seven (i.e. Sn. 227-232, 235) of the nine stanzas in this group are devoted to describe the Saṅgha : and it is apparent from the over-emphasis laid on the Saṅgha that this section was one of the so-called " monastic fabrications ". There are nine consecutive stanzas in Mvastu. (Viz. vv. 6-14 ; Mvastu. I. 291-294) with the refrain, *idam pi saṅghe rātanam praṇītaṃ*, etc. Of the other two stanzas, Sn. 233 and 234, the former roughly corresponds to v. 15 in Mvastu. (I. 294) which runs,

*Gṛīṣmānamāse prathame Caitrasmin
vane pragulmā yatha puṣpitāgrā °
vāteritā te surabhiṃ pravānti /
evaṃvidhaṃ dhyāyino Buddhaṃputrāḥ
śīlenupetā surabhiṃ pravānti /
idam pi saṅghe rātanam praṇītaṃ
etena satyena suvasti bhotu
manuṣyato vā amanuṣyato vā //*

The latter (Sn. 234) has no parallel in Mvastu. From this disparity it may be surmised that the BSk. version was based on a different recension of the sutta which perhaps was earlier than or contemporaneous with the Pāli. The better arrangement of the expanded version in Mvastu. perhaps indicates that as a sūtra, it is younger than the version preserved in Sn. Part III which consists of the concluding stanzas is attributed neither to the Buddha nor to Ānanda, by the Comy. and tradition, but to Sakka. The last two verses are mere repetitions of Sn. 236 with Dhamma and Saṅgha substituted for Buddha in line c. It has already been observed that these three stanzas show the development of a complete doxology in Buddhist worship. All the three stanzas are found in a condensed form in the concluding verse in Mvastu. (I. 295).

On purely linguistic evidence the sutta appears old ; but its contents and developments in ideology and doctrine show that it cannot be as old as

23. There are other references to *nāgasāṅgha* at Sn. 421b and *samaṇasaṅgha* at Sn. 550c in the more general sense of "multitude" as in *devasaṅgha* at Sn. 680c.

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the earliest suttas of Sn. Many of the archaic and dialectical forms found in the sutta have no exact parallels in Mvastu. This is clear evidence that the recension from which the sūtra in Mvastu. was compiled had lost sight of such old forms, and found them too obscure to restore the equivalent Sanskritised forms. The phrase *divā ca ratto ca* (Sn. 223c), though stereotyped, is old; and the younger Pāli would prefer *divā ca rattiya ca* (both inst.) or *divaṃ ca rattiṃ ca* (both acc.) as in Mvastu. *divaṃ ca rātriṃ ca*. The adverb of place *huraṃ* (Sn. 224a, cp. Th I. 10, Sn. 486c, 470c, etc.) goes back to the dialect of the Brāhmaṇas.²⁴ Even though the phrase *sataṃ pasatthā* (Sn. 227a) is neither irregular nor particularly archaic Mvastu. has *sadā prasastā*. It is quite probable that the recension that Mvastu. followed contained the idea *sadā* and not *sataṃ*. In Mvastu. the cpd. *suppayuttā* (Sn. 228a) is replaced by *yuktayogī* (cp. *yogayukto munir* Bhg. V. 6), and *laddhā mudhā* by a totally different idea, *vimuktacittā*. Though *mudhā* is met with in Classical Skr. it is an old form. The form *catubbhi* is historical and old (Mvastu. *caturbhi*). The archaic particle *su* (cp. Skr. *svīd*) at Sn. 231b in the phrase *tayas su dhammā* is lost in Mvastu. (*trayo 'sya*); so is *uda* (cp. Vedic *uta*) at Sn. 232b replaced by *atha*. The enclitic *no* in the phrase *na no samaṃ atthi* is perhaps dialectical (Mvastu. *taṃ*). Similarly pronouns *ye* and *ne* at Sn. 223cd are not only lost in Mvastu. but the corresponding lines there,

divaṃ ca rātriṃ ca haranti vo baliṃ
tasmāddhi naṃ rakṣatha apramattā (Mvastu. I. 294)

are grammatically wrong. The old Māgadhī nom. sg. in *-e* at Sn. 233a cannot be traced in Mvastu. which has the plural instead. The cpd. *paramaṃ hitāya* is an old *aluk*-samāsa which has puzzled even the Commentator who explains the nasal as *metri causa* (Pj. I. 192). If that was so *paramā* (*-ā* contraction for *-āya*) which would suit the context better and has the same metrical value is to be expected here.

The style of the sutta is simple and the verses are quite vigorous. There are a few similes used, e.g. the *inda-khīla*²⁵ at Sn. 229ab, the forest-grove in summer at Sn. 233ab, etc. Metaphor is not infrequent, e.g. *khīnabījā* at Sn. 235; etc. The heaping up of the attributes of the Buddha at Sn. 225a, 234ab may be a sign of a more developed style. The language is essentially the poetic diction.

24. A. V. *huruk* > Brāh. *huras* > P. *huraṃ* (with *-aṃ* the standard adverbial termination formed after the acc. sg. of nt. nouns). Cp. *hurāhuraṃ* at Dh. 334, Th. 339, etc. Mvastu. has *parasmin* in place of *huraṃ*.

25. S.v. P.T.S. "The post, stake or column of Indra, at or before the city gate; also a large slab of stone let into the ground at the entrance of a house". Pj. I. 185:—*Nagara-dvāravinivāraṇattham ummarābhantare attha vā dasa vā hatthe paṭhaviṃ khaṇitvā ākoṭitassa sārādārumayattihambhass' etaṃ adhivacanaṃ*.

The metre of the poem is *Triṣṭubh*, but there are numerous metrical irregularities such as 17 *Jagatīpādas*, one instance of a *pāda* with caesura after the seventh syllable not being reckoned (Sn. 223a) and a contaminated *pāda* (Sn. 235b) enumerated by Helmer Smith.²⁶

There are many points of **doctrinal importance** in this sutta. It is not possible to specify any of them as old or young, but certain trends are noticeable. Both old and more developed concepts lie side by side. *Mettā* has already been discussed (Sn. 223b). The categorical statement that Buddha, Dhamma and the "uninterrupted *samādhi*" are unique (Sn. 224c, 225c, 226c) shows signs of a developed lore. There is an elaborate theory almost amounting to a dogma discussed in Sn. 227-232. These verses are quite valuable in tracing the Arahant-ideal in Buddhism.²⁷ Most of what is stated here is found in the older parts of the Canon; yet there appears a slight departure in the method of presentation. The basic tenet of the *ariyasaccāni* occurs at Sn. 229d and 230a. The eight *puggalas* (individuals) culminating with the *Arahant* are mentioned (Sn. 227ab) and there is a probable link with *yoga* in the phrase *suppayuttā* (Sn. 228a,—in perfect control). It is emphasised that these *puggalas* will not enter an eighth existence (Sn. 230d). Further evidence for the development of the concept *Arahant* is to be seen in Sn. 231 where it is stated that the individual (belonging to one of these eight categories) has abandoned *sakkāyadiṭṭhi* "heresy of individuality", *vicikicchā* "perplexity" and *sīlabbataparāmāsa* "the observance of diverse vows and ascetic practices". These three concepts represent a somewhat developed phase. As opposed to *vicikicchā* is *saddhā* which signifies a religious aspect rather than a moral relation. The "contagion" of various *sīlas* and *vatās* may perhaps refer to various types of Brahmanical and other ritual. There also occurs a minor dogma (not found in Mvastu.) at Sn. 231ref. If these two lines do not belong to a later stratum than the rest of the poem, the term *abhiññānāni* may also indicate general lateness. The six grievous offences include the five *ānantarika kammās* and *aññasatthār'uddesa* (positing another teacher—cp. *micchādiṭṭhi*). The latter was probably added to the earlier list of five with the arising of a growing rivalry between the Saṅgha and the members of other sects. Further attributes of the *Arahant* occur at Sn. 232. Although *Arahants* are mentioned in the earlier part of the Canon and *arahatta* is a familiar concept, the sutta definitely reveals a development in the theory of the *Arahant*. The centre of gravity has already shifted from the *muni* to the "perfect being". This is the outcome of a widespread monastic organisation as opposed to the "lonely wanderers" of the older ballads.

26. *Op. cit.* (SnA. 683 ff.)

27. *Vide* Miss I. B. Horner, *Early Buddhist Theory of Man Perfected*.

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External evidence.—A parallel version of this sutta occurs at Mvastu. I. 290 ff. As stated earlier the two versions in Pāli and BSk. may be traced to a common source with different recensions rather than one being based on the other. The evidence discussed above shows that the sūtra in Mvastu. is relatively younger than the Pāli. Though doctrinally the Pāli version depicts a comparatively developed phase of Buddhism, linguistic and external evidence debars one from assigning a very late date.²⁸ A passage found at Divy. 340 throws considerable light on both versions of the sutta. It runs; *Āyusmatā Saṅgharakṣiteṇa Nagaropamaṃ sūtraṃ upanikṣiptaṃ gāthāṃ ca bhāṣate,*

*Yānīha bhūtāni samāgatāni
sthitāni bhūmyāṃ athavāntarīkṣe /
kurvantu maitrīṃ satataṃ prajāsu,
divā ca rātrau ca carantu dharmam //*

The Nagarūpama Sutta at A. IV. 106 ff. has no connection whatsoever with the verse quoted, nor with Mvastu. I. 290 ff. The stanza may be compared with v. 15 of the sūtra in Mvastu. (I. 294), lines ab of v. 2 (Mvastu. I. 290) and Sn. 222ab, 223bc. The same idea is found at Brh. I. 4, 29 and IV. 3, 43. It is not very probable that Divy. 340 quotes from Mvastu. or Pāli. On the other hand, it may perhaps be attributed to some source which may have been connected with the original version of the sutta. The other probability is that the opening verses of the Ratana Sutta and the corresponding gāthās of Mvastu. have drawn upon this stanza, which may have originally belonged to some other section, which in all probability was the Nagaropama Sūtra mentioned in Divy. (and not the sutta bearing that name at A. IV. 106 ff.). This sutta seems to have consisted of general advice given in the form of an address made to the *bhūtas*, for, the second line inculcates the practice of *maitrī* and *dharmacaryā*. There is another reference to the Triad of *Ratanas* at Divy. 481, in the form of a salutation (*namo ratnatrayāya*), which merely shows that a conception of such a triad was familiar to the editor of that section of Divy.

Indirect evidence.—Internal evidence and all available external evidence show that the sutta is comparatively late. It is also found to be decidedly later than the *Muni*-Ballads of Sn. It has been observed earlier (U.C.R. VI. 1) that subsequent additions are normally made to Canonical works by appending them either at the head of a section or at the end of it. Ratana Sutta is clearly an addition made to the Culla Vagga, after a *vagga* as such had been formed. Evidence of this nature is not helpful in determining dates of suttas, but on the other hand, it is an invaluable source of information in tracing the growth of the various works. It is also useful as a confirmatory test to what has already been discovered from other sources.

²⁸ The Mvastu. version, however, is decidedly later than the Pāli poem.

Conclusion.—The supposition that the opening stanzas of the sutta in Sn. are based on a sutta which is now lost leads to the natural inference that the Ratana Sutta is of a rather composite nature, being built up of various elements, at different periods. Though there is no conclusive evidence forthcoming to establish this tradition, a comparison of the two versions of the sutta in Pāli and BSk. and an analysis of its contents have shown that this is true to some extent. Generally speaking, parts I and III (*supra*) have been observed to be on a different level from the rest of the poem; and parts IIa and IIb on two separate levels. Doctrinal evidence has shown that the two additional *pādas* Sn. 231gh are considerably late; and similarly the short stanza Sn. 234 which gives a categorical list of attributes of the Buddha appears to be later than the longer stanzas occurring immediately before and after it.

N. A. JAYAWICKRAMA

Christian Missionary Enterprise in the Early British Period II

(C) The Wesleyan Methodist Mission.

FROM the early days of the Wesleyan Methodist Movement in England, the Revd. John Wesley,¹ the founder of the Movement and many of his chief fellow-workers were keen on Christian missionary work overseas. Among the best known of the earliest Wesleyan overseas missionaries was the Revd. Thomas Coke,² a Doctor of Civil Law of Oxford University. He had spent much of his private fortune on missionary work in America and the West Indies and both he and Wesley were now anxious to turn their attention to the East. Originally the idea was to send a mission to India; but Ceylon was ultimately preferred for several reasons: much greater toleration was expected in Ceylon which was then under the British Crown than in India where the East India Company, well-known for its antipathy to Christian missions, held sway;³ Dr. Claudius Buchanan's researches and reports from others who had been to the East had revealed that the island could be a fruitful field of service and Sir Alexander Johnstone, Chief Justice of Ceylon and a keen Christian, who had arrived in England about this time, had encouraged the Wesleyans to undertake a mission to Ceylon.⁴ Sir Alexander's view had been made known to William Wilberforce who was leading a campaign in England at this time for the amelioration of the Colonial peoples and the suggestion was laid before the "Conference" which was the governing body of the Methodists in England. There were many who discouraged the idea owing to the risks attendant on the inevitably long voyage and its serious financial implications. But Dr. Coke who was the most keen about the whole project and was willing to organise the mission was able to obtain the sanction of the Conference after he himself had promised to defray the larger part of the expenses of the mission from his own private funds.⁵ The found-

1. "The people called the Methodists" belonged to a group founded by the Revd. John Wesley in 1739, and later grew into the Methodist Church. Originally it was a movement within the Church of England but it later became a separate organisation. Wesley was a son of the Rector of Epworth, born June, 1703; educated Charterhouse, 1714-20; Scholar of Christ Church, Oxford, 1720; ordained priest in the Church of England; Fellow of Lincoln, 1726; undertook extensive Evangelistic tours for the Wesleyan Methodist Movement; Died March 2, 1791.

2. The Revd. Dr. Thomas Coke was called "The Methodist Bishop", Born 9th October, 1749, Died 3rd May, 1814. v. J. W. Etheridge: *The Life of the Revd. Thomas Coke* (London, 1860), pp. 366-424.

3. *University of Ceylon Review*. Vol. VII, No. 2, p. 135.

4. *University of Ceylon Review*. Vol. VII, No. 2, p. 141.

5. Harvard, W. M.: *A Narrative of the Establishment and Progress of the Mission to Ceylon and India, etc.* (London, 1823), pp. 1-25.

ation of the mission was hailed by Dr. Coke as "an advance of no small importance towards the attainment of his fondest plan of an Oriental mission". The Conference appointed Dr. Coke to undertake its leadership and authorised him to take with him "Six Preachers". It had been John Wesley's idea that not less than six should be sent at that time on a pioneer mission of this nature.⁶

The mission set sail from Portsmouth on the 30th December, 1813, led by Dr. Coke who was now past 65 years of age and the six Preachers were: William Ault, Benjamin Clough, George Erskine, William Martin Harvard, James Lynch and Thomas Hall Squance. Mrs. Ault and Mrs. Harvard also travelled with them. The voyage was undertaken after much preparation; the missionaries on board even studied Portuguese which they were told would be useful in Ceylon and they had many consultations on the kind of work they should do. But the hard conditions of travel told on many of them and four of them, Squance, Harvard, Mrs. Ault and Dr. Coke, fell seriously ill. Mrs. Ault and Dr. Coke died and were buried at sea. The sudden death of their leader on 3rd May, 1814, was a serious blow to the mission for in addition to losing their most enthusiastic guide and friend, they were placed in serious financial difficulties as all the funds which were to be used by the mission were in Coke's personal name and were not, in the absence of any authorisation from Coke, legally available to them. When the rest of the mission arrived in Bombay on 21st May, 1814, they were a saddened band. But through the good offices of the commander of their ship, Captain Birch, and the kindness of the Governor of Bombay, Sir Evan Nepean, and a British merchant, Mr. W. T. Money, they had a sympathetic and warm welcome and were helped financially to tide over their difficulties. A passage to Ceylon was taken from Bombay by five of the missionaries and on the 29th June, 1814, Lynch, Squance and Clough landed in Galle while the boat in which Ault and Erskine travelled drifted and came ashore at Weligama, whence the two latter missionaries travelled to Galle. Mr. and Mrs. Harvard were held up at Bombay owing to Mrs. Harvard's ill-health and they arrived in Colombo on the 23rd February, 1815.⁷

At Galle the missionaries were welcomed by Lord Molesworth, Commandant of the Galle Garrison, and Lady Molesworth at their residence; and were later met by the Colonial Chaplain, the Revd. George Bisset, who came from Colombo with the greetings of the Governor, Sir Robert Brownrigg. The missionaries were told that if they could undertake educational work,

6. Harvard, W. M.: pp. 25 ff. Cp. G. G. Findlay and W. W. Holdsworth: *A History of the Wesleyan Methodist Missionary Society*, Vol. V, (London, Epworth, 1924), pp. 22-25.

7. Harvard, W. M.: pp. 52 ff. *The Methodist Magazine* (London Conference Office) 1815, pp. 54 ff.; 1852, p. 587; Mss. on Clough's voyage to Ceylon at the British Methodist Headquarters, London.

superintending the schools and teaching English at some of the more important centres, in addition to their missionary work, the government would be prepared to pay 50 rix-dollars a month to each missionary. The missionaries welcomed the suggestion and at "a little Conference" held in Galle after 10 days prayer and consultation they decided on "the stations" to which they were to be appointed: Ault to Batticaloa, Clough to Galle, Erskine to Matara, Lynch and Squance to Jaffna. When the British Headquarters of the mission were informed of the situation in Ceylon, in view of Dr. Coke's death, James Lynch was appointed the first General Superintendent and head of the mission. On Mr. and Mrs. Harvard's late arrival from Bombay they were stationed in Colombo.⁸

The evangelistic aims and methods of the Wesleyan missionaries were in the main similar to those of the Baptists; but since the Wesleyans had a stronger team and greater financial help they were able to work in a wider area including both Sinhalese and Tamil-speaking districts and also to make use of larger opportunities of service. A letter written in 1815, by one of the missionaries, George Erskine, who worked in the Galle-Matara area gives a glimpse of the work they did. "Monday evenings we meet our class, consisting of about 20 members, Dutch, Portuguese, soldiers and one native headman, or Modeliar as they are called here . . . We sometimes preach in the Public Market through the means of an interpreter. Here we meet the many different characters—Mohometans, Malabars, Dutch, Portuguese, Cingalese etc., we visit some of the schools where the Cingalese are taught their own language".⁹ In Colombo Harvard's work was chiefly in the Pettah area—a tradition of work appropriately carried on today by the Colombo City Mission at their centre, the Harvard Settlement, also in the Pettah—and here gradually a congregation was built up. The response to the work in the Pettah was such that it was here that "the first Methodist Chapel in Asia" was built on the model of Brunswick Chapel at Liverpool and opened for worship on 23rd December, 1816. Among the large number of Christians who subscribed towards the funds necessary for the building of the Chapel were the Governor, the Chief Justice, members of the Council, the chief European residents, the Chaplains and a number of Ceylonese—many of whom belonged to other Churches. A Sunday School too was opened in connexion with the Colombo mission and "within a short space of time after the opening . . . upwards of twenty Sinhalese and native born teachers and more than two hundred and fifty children" joined it. Mrs. Harvard conducted a Sunday School for girls and they were later joined by the pupils of another Sunday School for girls run by Lady Johnstone "who every Sabbath caused the most diligent of the Scholars

8. Harvard, W. M.: C. VII ff.; *Methodist Magazine*, 1815, pp. 310 ff.; Letters from Missionaries. *B.M.S.P.A.*, Vol. VI, p. 56.

9. *Methodist Magazine*, 1816, p. 226.

to be conveyed to our school in a native cart ; which followed by their brothers on foot, formed a procession highly gratifying". A Class-meeting was also held regularly with a devout and accomplished British soldier—Andrew Armour—acting as interpreter to its English, Portuguese, Dutch and Sinhalese members.¹⁰

In 1815, John McKenny who had been sent by the Society in England to the Cape of Good Hope and had been unable to continue his work there arrived in Ceylon and another complement of missionaries, consisting of Samuel Broadbent, John Callaway, Robert Carver and Elijah Jackson, were sent from England in 1816. At a General District Conference of the Wesleyan missionaries, held in July, 1816, the general situation was reviewed and reinforcements were sent to some of the stations and new work begun at Trincomalee under Broadbent. Other appointments made were Lynch, Squance and Carver to Jaffna ; Jackson to Batticaloa ; Erskine and McKenny to Galle ; Harvard and Clough to Colombo and Callaway to Matara. There was a further batch of missionaries sent from England in 1816. These were Buckley Fox, Robert Newstead, Thomas Osborne, Alexander Hume, Samuel Allen, all of whom were Ministers and Daniel James Gogerly—a lay missionary.¹¹

Although the missionaries were centred in towns, they did a considerable amount of work in the villages aided at first by interpreters until they had learnt the vernaculars which all the missionaries appear to have done successfully. There was an extension of work from Colombo down the coastal area including Moratuwa, Panadura and Kalutara and, also up to Negombo ; from Galle and Matara Evangelistic work was conducted in Ambalangoda and Weligama. In 1820 it was reported that the Mission had a Mission House at Moratuwa, a chapel at Negombo, a chapel at Seeduwa and a Mission House and a chapel at Kalutara.^{11a} Buckley Fox writing to England about the work in the Sinhalese-speaking area states that in the coastal area there were 63 places where preaching was conducted. "When we are at any of these places, we conduct the service in Cingalese".¹² In Negombo after the arrival of Newstead an Auxiliary Missionary Society was formed as early as 1820 ; and missionary activities were extended with the aid of Sinhalese assistants to Chilaw. Newstead later worked in Kandy and also did missionary work at Kurunegala—

10. *Methodist Magazine*, 1816, pp. 227 ff. Colombo District Minutes Mss. 4 August, 1816, p. 21; Harvard, W. M. : pp. 260 ff ; p. 313 f, pp. 365-374 f ; 383 f. The Plan of the Brunswick Chapel was found among Dr. Coke's effects after his death at sea during this voyage.

11. Colombo District Minutes Mss. 3 August, 1816, pp. 19-20. Harvard, W. M., pp. 285 ; 302.

11a. Ceylon District Minutes : (Sinhalese District) Mss. 29 January 1821, pp. 270 ff.

12. *M.R.* 1817, pp. 471-2 ; *M.R.* 1820, p. 55 ; 1826, p. 137 ; Harvard, W. M. : pp. 299-300 ; Hardy, R. S., *Jubilee Memorials of the Wesleyan Mission in South Ceylon* (Col. 1864), pp. 109, 114.

a station about which the mission took a great deal of trouble until they abandoned it in 1829 owing to recurrent fever.¹³ The kind of Evangelistic work done by the missionaries is reflected in a report sent by Clough to England and printed in the *Missionary Register* in 1823. He states that the conviction is daily strengthened in his mind that the duty of missionaries is by no means done when they have attended to their school work and have preached. "The principal part of the work to be done is in going from house to house, and having personal intercourse with the people. In this respect the Roman Catholic missionaries are an honour to their character: they go from house to house as well as from village to village; and however little I might be disposed to admire their proceedings in other respects, I certainly do in this: and I will not deny that this is one reason why they carry all before them almost in this country" (sic.) (p. 58).

The educational activities of the mission were considerable and widespread at a time when the Government appeared to have had no real policy of its own apart from asking the missionaries to superintend the very few and badly neglected government schools and relying on the missionaries to open up any new schools they could. The suggestion to open schools under the management of the mission was made by Harvard and Clough when they found that the villagers were keen to send their children to be educated under the missionaries. Harvard wrote: "Mr. Clough and myself regarded with feelings of peculiar pleasure the desire manifested by the inhabitants of various villages to place their children under our care, persuaded that our hopes for the future must be, in a very considerable degree, founded on the cultivation of their minds and the formation of their character. We therefore digested a plan for the establishment of a regular chain of native mission schools and submitted to our brethren at the different stations".¹⁴ These mission schools were started by the Wesleyans in Colombo and in view of their success a scheme was commended in 1815, so that all the stations could have similar schools. The missionaries adopted the scheme with great success using the vernaculars as the medium of instruction and teaching English only to the best pupils. By 1826, the mission had 73 schools with 3,088 pupils of whom 2,572 were boys and 516 were girls. The following table shows the distribution of schools and pupils:¹⁵

13. *M.R.* 1822, p. 85; *M.R.* 1831, p. 83; Hardy, R. S., pp. 245-6.

14. Harvard, W. M., pp. 303-7; Hardy, R. S., p. 267, cp. *Third Wesleyan Mission Native School Report (W.M.P.)* 1819, p. 11 f.

15. *M.R.* 1827, pp. 104-7. Cp. *M.R.* 1823, fn. 17, *infra.*; also cp. *M.R.* 1826, p. 137; 141-2; 145; 148-9. Harvard, W. M., pp. 291 ff., 304 ff. In the *Third School Report*, 1819, op. cit. 84 schools with 4,878 pupils are mentioned (p. 20) and the Ceylon District Minutes Mss. 7 February 1820, state that by that date there were 4,888 pupils in these 84 schools, (p. 205).

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<i>Name of Circuit</i>	<i>Number of Schools</i>	<i>Boys</i>	<i>Girls</i>
Colombo	6	342	33
Negombo	9	338	150
Kurunegala	7	187	1
Kalutara	7	292	90
Galle	10	369	112
Matara	8	279	100
Batticaloa	7	200	—
Trincomalee	4	130	—
Jaffna and Point Pedro ..	15	435	30
9 Circuits	73	2,572	516

Like all religious teachers these missionaries undoubtedly hoped to spread their religion through the schools they established. But the actual results from this point of view were unsatisfactory. What conversions there were seem to have been slow and few. There is no evidence of any "mass conversions" from these schools nor of coercion. In the same report the total number of the members of the Wesleyan mission in Ceylon is given as 439.^{15a} By 1826, the schools in the several areas had been established for 5 to 10 years. If there were "mass conversions" the numbers in the mission churches should have been much greater. It is very improbable that the missionaries deliberately under-estimated the number of their converts. The impression created by the reports and letters they wrote is that the trouble with the missionaries was quite the reverse: they tended to over-estimate the results of their Evangelistic work and were often a little too quick, certainly in these early days to call persons "converts" when in fact many of them had "changed their religion" only in name. Over and over again this is shown to be one of the weaknesses of Christianity in Ceylon.^{15b}

For the higher education of young converts and for their training as lay-evangelists, the missionaries proposed a special institution. But this did not prove to be very successful. In the *Missionary Register* of February, 1825, it is recorded that a Missionary Academy was opened on 16th July, 1823. The primary object of this institution was "to communicate gratuitously

15a. In the report in which the number of schools and distribution of pupils is given according to the figures quoted, the distribution of church-members is given as follows: Colombo 87, Negombo (including Chilaw) 72, Kurunegala 5, Kalutara, Bentota, Panadure 75, Galle and Ambalangoda 11, Matara and Weligama 97, Batticaloa 14, Trincomalee 8, Jaffna and Point Pedro 70; v. *M.R.* 1827, pp. 104-7. Cp. Harvard, pp. 317-20.

15b. Cp. Hardy, R. S., p. 264; also see *University of Ceylon Review*, Vol. VI, No. 4, pp. 274, 283-5, 288.

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to the poor a correct knowledge of the English language and such an education as may best fit them for useful situations in societies it will be open, however, to children of respectable Burghers and of Cingalese headmen. In its establishment we have in view, in the most direct manner, the spiritual interests of the great missionary work in which we are engaged—which we propose to promote, first, by educating a certain number of youths from each station, preparatory to their filling situations of usefulness as school-masters and catechists in their own villages, under the superintendence of the missionaries ; and secondly, by securing a more perfect religious education to as many as we can bring under the influence of the institution ” (p. 87). Fifty Burgher and 50 Sinhalese children not under 8 years were to be taught free. Children of “ respectable Burghers and Cingalese headmen ” were to pay 8 rix-dollars each per month. Any profits were to be used for equipping the children and the school with books and other requirements. The period of education was not to be more than 8 years. Later reports do not give any clear information about the progress of this institution. But in March, 1826, we are told that the mission established an institution “ for the purpose of furnishing a limited number of young native Converts and Catechists with a knowledge of Christian doctrine and such branches of Science as might effectively guard themselves against a visionary philosophy and the seductive calculations of the Eastern Astronomy ”. By 1829, there were only four students here. Two of them were Burghers: one Mr. Bartholomeusz was on trial as an assistant missionary and one Mr. Lutersz was appointed to Kalutara as an assistant superintendent of schools. This institution was closed in 1829 and there appears to have been no special institution for the training of ministers for the mission until the Church established one later at Richmond Hill.¹⁶

A most useful contribution to religious and educational work was made by the mission early in its history when they set up a printing press which had been included by Dr. Coke with characteristic foresight as a part of the original equipment for the mission to the East. The press, was managed and worked by Harvard who had once been a printer ; and it proved most helpful specially as the press taken over by the British Government from the Dutch could not be used for some time. In 1816 Harvard cast Sinhalese and Tamil types ; and he was also responsible for repairing the government press. The mission press came later under Gogerly’s management. Its publications ranged from “ spelling books ” to more ambitious works like Clough’s Dictionaries and a Pali Grammar and in 1838 a Sinhalese Almanac ‘ on European principles ’. Among the religious books published were Bishop Hopkin’s *Exposition of the Ten Commandments*, translations of parts of the Bible, books on Christian doctrine and religious education and a considerable number of religious tracts.

¹⁶. M.R. 1828, pp. 120 1 ; 1829, p. 118 ; 1830, p. 39. *Findlay and Holdsworth*, Vol. V, pp. 72, 74.

The publication of the English-Sinhalese Dictionary in 1821 and the Sinhalese-English Dictionary nine years later and the Pali Grammar—all compiled by Benjamin Clough—shows the considerable progress made by him, in the study of the vernacular. Clough also worked on a new version of the New Testament which had been begun by William Tolfrey and which Clough now completed with the help of a Buddhist priest and others like Armour and Chattr. Newstead prepared a translation of the New Testament in Portuguese. In 1819, it was reported that the literary work was going well ahead. The missionaries also prepared several school-books. Fox wrote about another Dictionary the completion of which was fast approaching; this was "of the language which is called Portuguese in this country but differs materially from what is called Portuguese in Europe. This language has never been written". This was 'colloquial Portuguese'—a polyglot language used in Ceylon in those days. Also mentioned in the report is "a vocabulary of English, Portuguese and Cingalese . . . making between two hundred and three hundred pages . . . It has cost us considerable pains, as nothing of the kind was ever yet published". All these books were printed in the Wesleyan mission press. Much of this work was done despite the discouragement of the London Headquarters of the mission which once referred to Clough's dictionary as "a literary speculation" and assumed that the literary activity of the missionaries was undertaken at the cost of direct Evangelism in which they felt the missionaries should be primarily engaged.¹⁷

The distance between the Headquarters in London and the missionaries in Ceylon, the failure of Headquarters personnel to appreciate the very real difficulties of the missionaries, their ignorance of the local situation and their refusal to grant the missionaries the necessary discretionary powers specially in financial matters brought about a certain amount of displeasure between the Headquarters and the missionaries and created more difficulties for the latter. It led to the reduction of expenditure on schools and to closing down some of them during this period.^{17a} It was with considerable difficulty that the missionaries prevented the closing down of the Press. It was due to lack of understanding on the part of the Headquarters and of effective liaison between them and the missionaries that Lynch eventually resigned after a vote of

17. *M.R.* 1819, p. 125; Harvard, W. M., p. 45, 266 ff; 294 ff.; p. 313. Hardy, R. S. pp. 275-86; B. Clough: *A Dictionary of the English-Sinhalese and Sinhalese-English Languages*, 2 Vols.: Colombo, 1821, (New Edn. Col. 1892). B. Clough: *A Compendious Pali Grammar* (Col. 1824); *M.R.* 1819, p. 124, 1820, p. 56; *M.R.* 1822, p. 85; *M.R.* 1823, p. 58. Cp. *Findlay and Holdsworth*, Vol. V, p. 63; Minutes of the Conference, Galle, 1819: Col. W. M. P. 1819 p. 14 f, 18; 7 Feb. 1820, p. 227.

17a. See footnotes. 15; 15a.

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censure passed on him in London despite the support and approval he had from his co-missionaries in Ceylon.¹⁸

Despite the difficulties the missionaries had there was gradual progress both in religious and educational work. In 1819 for the sake of convenience the mission was divided into two districts—the Sinhalese-speaking District and the Tamil-speaking District. Lynch who was originally Chairman of the whole mission and of the General District Conference became Chairman of the Tamil-speaking District and Buckley Fox became Chairman of the Sinhalese-speaking District.¹⁹

The Wesleyan Mission in Ceylon extended its activities in these early stages even beyond the confines of the island. On October 7th, 1815, Lynch wrote to London: "I have received a letter lately from Madras signed by five serious persons, who appear to experience the power of religion. They have received much light into the doctrines of the Gospel by reading Messrs. Wesley's and Fletcher's works and most earnestly request one of us to visit them. At present it is not in our power to do this for want of sufficient help". The London Society was anxious that Harvard should go but, because both the Ceylon mission and the Government pointed out to them that Harvard's service in Colombo were indispensable, Harvard was kept back. In 1817, the Society authorised Lynch to visit Madras and to add Madras as a station of the Ceylon mission. Lynch was able to extend the work and by 1819 the Wesleyan Mission in Madras had branches at Bangalore, Seringapatam, Nagapatam and Ramesveram. With the growth of the work the administrative connection with Ceylon ceased and a separate District was formed in India.²⁰

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18. *M.R.* 1823, p. 58. The earlier report gave 84 schools with 4,875 pupils and 160 teachers; but the last report stated that there were only 63 schools with 3,335 pupils and 84 teachers. *Findlay and Holdsworth*, Vol. V, pp. 30, 64 ff., 176 ff.

19. Colombo District Minutes Mss. 29 July, 1816, p. 2; 7 August, 1816, p. 35; 14 January, 1819, pp. 125, 151; 11 August, 1817, p. 69.

20. Colombo District Minutes Mss. 1 August, 1816, p. 6 f; 3 August, 1816, p. 15 f; 41 January, 1819, p. 121. Harvard, W. M., pp. 288 ff., p. 384. *Findlay and Holdsworth*, Vol. V, pp. 27, 67.

APPENDIX

The following extracts and notes from *The Ceylon Wesleyan Mission Native School Report for 1822* [Colombo: Printed at the Wesleyan Mission Press, 1823] will give some indication of the places in which the Wesleyan missionaries had schools in that year. *Cp. supra, fn. 15 and 16 and table giving the distribution of pupils in schools in 1826-27. Notes within square-brackets are mine.*

The report begins with a general survey of Christian work in Ceylon and refers to the religious tolerance of the Sinhalese.

"The Ceylonese are also people of good capacity. Their apprehension is quick, their application often remarkable, their memory tenacious and their judgement destructive" (p. 16).

"Most of the Cingalese, travelling on foot and free in their manners, become inexhaustible talkers and in dispute and narration display considerable vivacity" (p. 17).

"The language as Captain Knox observes 'is copious, smooth, elegant and courtly', and its alphabet has no equal in Europe for comprehensiveness or arrangement" (p. 18-19).

The report of stations:—

(A) Colombo.—

- (1) First school of station in *Colpetty*—Co-Educational—Tamil taught for sometime. [Presumably in addition to Sinhalese and English]. Children tolerably regular in their attendance (p. 21). Difficulty owing to lack of good teacher.
- (2) *New Bazaar School*—difficulty in English department owing to lack of teacher.—Not much prejudice against female education in vicinity: Number of pupils: boys 78; girls 32.
- (3) *Chekku St. School*—drawn from various classes of people. Former girls school given up owing to lack of teacher.
- (4) *Slave Island*.—"This school has fully maintained its character as a Christian school".—Improvement throughout the year.
- (5) *Kolobowilla School* [Kalubowila].—"The school in the jungle" increase and progress. The pupils not so eager as children near the coast.
- (6) *Morotto* [Moratuwa].—Present number of pupils: 41 boys and 4 girls. "This is truly in an eminent sense a Christian Establishment".

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- (7) *Ratmalana*.—Difficulty of getting suitable teacher. Girls' department discontinued despite much exertions.
- (8) *Nagalgam* [Nagalagam].—"Two conscientious men" were teachers here.

The above section is signed by W. BUCKLEY FOX (p. 23).

- (B) *Negombo Station*.—About the pupils the writer says "Having no hope of secular advantage from the mission, their attachment to us is the more encouraging; they are indubitable examples of the success of the Wesleyan School Establishment". (p. 23).

- (1) *Akella* [Ekala].—30 boys.
- (2) *Seeduwa*.—30 boys, 20 girls. The writer explains the meaning of Seeduwa as "Chee-duwa: Fie! daughter".
- (3) *Moklangam* : [Mukalangamuwa].—30 boys and 16 girls.
- (4) *Tempalle* : [Tempola].—A solitary place, teachers inactive but sincere[!].
- (5) *Amandula* : [Amandoluwa].—25 boys ; 2 girls.
- (6) *Negombo*.—Opposition from Roman Catholics. 26 boys, 3 girls.
- (7) *Pallenchene* [Pallansena].—29 boys. Roman Catholic influence strong here.
- (8) *Tambarawilla* [Tambarawila].—30 boys.
- (9) *Chilaw*.—34 boys, 2 girls.

The above section is signed by SAMUEL ALLEN.

- (C) *Kornegalla Station*.—[Kurunegala]. No Report, (p. 27).
- (D) *Caltura Station* : [Kalutara].—General progress in the District 298 boys, 94 girls.
- (1) *Caltura English School*.—Girls department under care of Mrs. McKenny. Prejudice against female education; inability to get suitable mistresses; formidable difficulties, (p. 28).
- (2) *Caltura Sinhalese School*.—Most of the parents either Carpenters or Silversmiths and need children's help: this retards progress.
- (3) *Pallatotte* [Palatota].—Failure; proposal to discontinue.
- (4) *Panture* [Panadura].—Improvement, new Building completed. An old pupil had been appointed as a teacher.
- (5) *Wakade* [Wekada].—Eagerness of inhabitants—they built the school themselves—general progress throughout. Only Sinhalese taught "as those who wish to learn English can attend at Pantura".

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(6) *Pyhagalle* [Paiyagala].—Irregular attendance.

(7) *Bentota*.—Satisfactory progress.

The above section is signed by J. MCKENNY and J. SUTHERLAND.

(E) *Galle Station*.—Note on school of Mrs. Gibson: "The Lord Bishop of Calcutta honoured it with a visit when passing here and remarked he had not seen its equal in India" (p. 32).

(1) *Fort*.

(2) *Minagoddy* [Minuwangoda].

(3) *Kalaganny* [Kalegana].—Mixed school.

(4) *Gindra* [Gintota].—Mixed.

(5) *Wavella* [Wewala].—Progress "not unpleasing".

(6) *Hiccoddy* [Hikkaduwa].—Progress.

(7) *Uddamulla* [Udumulla].

(8) *Malavenny* [Malawenna].—One of the best.

(9) *Telwatte* [Telwatta].—Fluctuating attendance.

(10) *Kahaway* [Kahawe].

(11) *Amblangoddy* [Ambalangoda].—Inhabitants subscribing for new school.

(F) *Matura Station* [Matara].

(1) *Matura*.—Progress.

(2) *Dondra*.—Progress.

(3) *Weragampitta* [Weragampita].—Progress, neat little chapel built, mixed.

(4) *Kadawiddia* [Kadawidiya].—Teacher, old boy—good work.

(5) *Neupe* [Nupe].—Sickly state.

(6) *Madhea* [Madihe].—Also exercises our patience.

(7) *Belligam* (Weligama).—First school—good teacher—satisfactory progress.

(8) *Belligam* [Weligama].—Second school: Progress.

(9) *Nawinna*.—Mistress quite a genius—a poetess—versified part of the Scriptures (p. 38).

The above section is signed by A. HUME, (p. 38).

(G) *Jaffna Station*.—

(1) *Jaffna English School*.—An useful and important establishment. The greatest number of pupils were Dutch and Portuguese who were poor.

(H) *Trincomalee Station* :

(1) *Mission House School*.—Under Mrs. Carver.

(2) *Perinternon*.—Encouraging 90 scholars.

(3) *Kutdukara-vadi*.—Numbers fluctuate. Chiefly Muslim children.

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(4) A discontinued school: on account of the sickness of the master.

The above section is signed by R. CARVER, (p. 42).

(I) *Batticaloa Station*.—More than one-third the inhabitants were Moors.

(1) *English School*.

(2) *Tamil School*.

(3) *Kottikolam School* [Kottaikallar].—

(4) *Vallivoor School*.—

(5) *Kallady School*.—

The above section is signed by J. ROBERTS.

[**Note I.** Judging from the above report there were 53 Wesleyan mission schools functioning in 1822; of these only 2 are specially mentioned as being English schools. But English appears to have been taught probably as an extra subject in some of the other schools, e.g. v. D. 4 and 5 above. See also Colombo District Minutes Mss. 21st August, 1817, pp. 98-103, outlining School policy. Education was free and girls were taught special subjects such as needlework and homecraft.]

Note II. In the similar School Report of 1819, the total number of schools is given as 84 and pupils 4,978. In 'Colombo' there were three more schools at Barbar Street, Mahabola, Wellawatte. In 'Negombo' the 9 schools are somewhat different from those mentioned above: Negombo, Grand Street, Akella, Rilligalla (in Kandy), Sea Street, Female Pettah, Catoonayakee, Seeduwa, Tempale. In 'Caltura' the schools were at Caltura, Goldsmith Street, Palliattote, Desastra Caltura, Pinwatte, Hiratudua, Pantura, Rambucanie, Bandaragama, Kehilhenawa, Anguratura, Paradue, Calamulla, Kuda Payagilla, Maha Payagilla, Berbereen, Alutgama, Bentota; in 'Galle', besides those mentioned in the above report there were schools in "The Circular Road", Unnewattanne, Boosey, Dodanduwe. There were 2 schools in Telwatte (Fisher and Mahabadde). The Udāmulla school is not mentioned here but probably appears under a different name. In 'Matara', the 1819 report does not mention the Nawinna school but mentions other schools at Mahawitta, a second school at Dondra, a school at Polhene, a second school at Madhea, a school at Pellane, and a school at Ahangama. In Jaffna, other schools were at Wannarponnay, Nallore, Tettarteru, Copay, Puttoor, Avaranial, Navacully, Matavilla, Vatheri, Valvatetorre, Katavelly, Alvay, Tanakarahkurichchi; under 'Trincomalee' are mentioned Nillavally, and Cothar besides the three schools named in the 1822 report (above). The Batticaloa schools are not mentioned in 1819 report.]

C.N.V.F.

Palaeographical Development of the Brāhmī Script in Ceylon from 3rd Century B.C. to 7th Century A.D.¹

EVER since the decipherment of the Brāhmī alphabet by James Prinsep in the earlier decades of the nineteenth century, the origin of this alphabet has been a subject of keen and protracted controversy. A variety of scripts ranging from the Phoenician to the Greek, and from the Persian to the Chinese, has been suggested by various scholars who have interested themselves in the subject.² The tendency in recent times has been to support Cunningham's view³ that Brāhmī had an indigenous origin—but on different grounds. The latest theory worthy of consideration is that of Langdon who has 'definitely stated that the early Indian alphabet, known as the Brāhmī script, is derived from the ancient pictographic writing.'⁴

When, by whom or under what circumstances the Brāhmī script was introduced to Ceylon must remain a matter of uncertainty in the present state of our knowledge. The *Mahāvamsa* contains a number of references to the practice of writing and the use of letters in the very early period of the history of Ceylon.⁵ From these statements it would appear that the practice of writing books and letters had existed even in the earliest times. But it has to be remembered that the *Mahāvamsa* was compiled about the 6th century A.D. It is therefore not possible to say definitely whether in these statements the Chronicle is preserving an authentic tradition or attributing to an earlier period a practice which was certainly existing when it came to be written.

It would be safe to assert that the Brāhmī alphabet was known in Ceylon in the time of King Devānampiya Tissa 247-207 B.C. in whose reign Buddhism

1. These notes on the development of the Sinhalese Alphabet are based mainly on the chart showing the Palaeographical development of the Brāhmī script in Ceylon from the 3rd century B.C. to the 7th century A.D. by C. W. Nicholas, published in the *University of Ceylon Review*, Vol. VII, No. 1. I must thank Mr. Nicholas for permitting me to consult his eye-copies and notes in the preparation of this paper.

2. For a discussion of the Origin of the Brāhmī Alphabet see : J. Prinsep, *Essays on Indian Antiquities*, edited by E. Thomas, Vol. II, pp. 42-43 ; Isaac Taylor, *The Alphabet*, pp. 304-324 ; *Proceedings and Transactions of the Fourth Oriental Conference*, Allahabad 1926, Vol. II, pp. 625-661.

3. Alexander Cunningham, *Corpus Inscriptionum Indicarum*, Vol. I, *Inscriptions of Asoka*, p. 53.

4. Sir John Marshall, *Mohenjo-Dāro and the Indus Civilization*, Vol. II, p. 423.

5. *Mahāvamsa*, VII, 51 ; XXIII, 33 ; XXXIII, 40 ; XXXIII, 50-51.

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is said to have been introduced to Ceylon.⁶ The earliest inscription found in Ceylon which can be dated with a reasonable measure of certainty, however, is a Brāhmī inscription discovered at Mihintale, containing a reference to a king called ගමනී උති මහරජ, (Gamaṇi Uti Maharaja), of whom Dr. Paranavitāna says, "The king appearing in this inscription can be definitely identified as Uttiya 207-197 B.C."⁷ He was the successor of Devānaṃpiya Tissa.

The characters used in the earliest inscriptions of Ceylon bear a marked resemblance to, and are almost in the same stage of development as, the characters used in the Brāhmī records of Asoka. But there are certain features in the Brāhmī records of Ceylon which distinguish them from the records of Asoka. The former contain two letters which do not occur in any of the records of Asoka, viz. 'i' (᳚) consisting of a vertical stroke on either side of which, at the centre are two dots and the 'ma' (᳞) formed of a U-tube like curve with a horizontal cross-bar terminating at the middle of the vertical arms. If, as is generally believed, the Brāhmī alphabet was introduced by the Buddhist missionaries who came over from India, it has to be explained how the Ceylon records which, as far as is ascertainable, go as far back as the time of King Uttiya, came to have forms of the 'i' (᳚) and the 'ma' (᳞) which are altogether absent in Indian records set up at the same time the Ceylon records are said to have been inscribed. The earliest occurrence of this 'i' (᳚) in North India is in the 2nd century A.D.⁸ The 'ma' (᳞) has not been noticed in any record of North India of the time. Perhaps these letters may have belonged to a different school of writing, that had separated itself from the Northern School and had remained confined to the South.

A close parallel to the early Brāhmī records of Ceylon is offered by some interesting Brāhmī records discovered in South India, occurring in a series of caves found in the Pāṇḍyan Country, round about Trichinopoly, Madura and Tinnevely.⁹ These records, like those of Ceylon, are carved on the drip ledges of some ancient caves and on palaeographical grounds these inscriptions have been assigned to the 3rd century B.C.¹⁰ In general appearance these records are so like the ancient cave records of Ceylon that one can almost mistake them to be those carved in caves at Mihintale, Vessagiriya and such other ancient sites in Ceylon. In addition to these palaeographi-

6. *Mahāvamsa*, XVI, 12.

7. *A.R.A.S.C.*, 1933, p. 14.

8. G. H. Ojha, *The Palaeography of India*, Plate XII.

9. For accounts of these monuments see : *Progress Report of the Asst. Archaeological Superintendent for Epigraphy*, Southern Circle, 1907, p. 46 ; 1911-12, p. 57 ; 1928, p. 1. For plates see *ibid.*, 1911-12, facing p. 57 and 1915, facing page 86.

Also, *Proceedings and Transactions of the Third Oriental Conference*—Madras, 1924, pp. 275-308 ; *ibid.*, Poona, 1919, pp. 325-348.

10. *Proceedings and Transactions of the Third Oriental Conference*, Madras, p. 280.

cal resemblances, in some of these caves are found carved in the living rock, small bed-steads for the use of those who dwelt in them—a feature found in some of the caves at Mihintale and Vessagiriya.

Though these South Indian cave records, like their counterparts in Ceylon are generally very short and represent only a portion of the alphabet, yet there is sufficient material to show the remarkable affinity between these and the early cave records of Ceylon. The letters well represented in the South Indian records, i.e., *u*, *e*, *ka*, *ca*, *ta*, *pa*, *ya* and *ra* resemble those found in the inscriptions at Vessagiriya and Riṭigala. But the more remarkable affinities are noticeable in the letters *a*,¹¹ *i* and *ma*. The initial vowel *i* is identical with that used in the early Brāhmī records of Ceylon consisting of a vertical stroke on either side of which are placed two dots half way up its length. The letter *ma*, as in the Ceylon records, consists of a U-tube like curve, the vertical strokes of which opening upwards are connected by a cross-bar at the middle.

Equally remarkable affinities to the Brāhmī alphabet of the early cave records of Ceylon are found in the inscriptions carved on pottery discovered at Arikamedu in South India and assigned to the 1st and the 2nd century A.D. on the basis of associated finds.¹² The letters occurring in these inscriptions, while possessing general characteristics not noticeable in the records of Asoka or in the early cave records of Ceylon,¹³ contain the *i* and the *ma* peculiar to the records of Ceylon and of South India mentioned earlier.

Thus we have three sets of Brāhmī records with the two peculiar characters, the *i* and the *ma*, i.e. the inscriptions in the Pāṇḍya Country in South India, the early cave records of Ceylon belonging roughly to the same period and the inscriptions on pottery found at Arikamedu belonging to a later period, but representing, perhaps, the same tradition as that of the first two sets of records. Probably these records were carved by the scribes of one and the same school and if so, it has to be assumed that a school of scribes, differing in several respects from those who carved the records of Asoka, was existing in South India and Ceylon and was practising its art in these regions even before the time of Asoka.

This school of Brāhmī must have migrated to South India and Ceylon at least a century or two earlier, for by the time of Asoka the Northern School had forgotten the South Indian forms of *i* and *ma*. Bühler admitted the

11. Cf. 'a' occurring in records at Tirupparangunram, Karungalakkuḍi, Kongarpuliyangulam and Mettupatti in plate facing p. 57, *Progress Report of S. I. Epigraphy*, 1911-12, with the 'a' occurring in Vessagiriya Rock B, cave No. 1, in plate 5, *Epigraphia Zeylanica*, Vol. I and *Aṇḍiyakanda Caves* 1, 2 and 3 in Plate 18, *E.Z.*, Vol. I and 3rd letter in Column 1, 2nd and 4th letter in Column 2 and 1st letter in Columns 1, 2 and 3 in Nicholas' chart.

12. *Ancient India (Bulletin of the Archaeological Survey of India)*, No. 2, p. 109.

13. This may be due to the material on which the letters are incised.

possibility of the Brāhmī alphabet being introduced to Ceylon before the time of Asoka by Indian colonists.¹⁴

Once Brāhmī was evolved, perhaps from the script of Mohenjo-Dāro, in course of time it seems to have migrated to South India to be the South Indian variety of Brāhmī. From South India, it probably was introduced to Ceylon as a result of the intercourse that existed between this part of India and Ceylon in the very early period.¹⁵

Once the Brāhmī alphabet was introduced to Ceylon from South India, it was influenced by other elements probably after the arrival in the island of the Buddhist missionaries. That, probably, is the reason why the characters in the early cave records share some of the features of the characters used in the inscriptions of Asoka, situated in the western and southern portions of India, i.e., places such as Girnār, Siddhārpūr and Brahmagiri. Instances are also not wanting in the early Brāhmī records of Ceylon, of letters resembling those occurring in inscriptions of Asoka found in the central and the eastern parts of India such as Delhi, Jaugada and Rummindēi.¹⁶ These northern and eastern influences can easily be explained when we remember that there were two well known routes to Ceylon from North India—a western route and an eastern route. Differences due to these two streams of immigration are also reflected in the Sinhalese language.¹⁷ However, the possibility is there that the eastern and western elements in the Brāhmī alphabet got mixed up in India itself,¹⁸ and that these influences reached Ceylon after such an admixture, as perhaps happened to a certain extent in Sinhalese-Prakrit.

It was indeed only after the advent of Buddhist monks from India that the early Sinhalese busied themselves in the pursuit of cultural activities and when the Brāhmī alphabet became enriched with the influences brought by the Buddhist monks, it became popular among the people as is shown by the large number of Brāhmī inscriptions scattered throughout the country.

14. *Indian Palaeography*, p. 33.

15. K. V. Subrahmanya Ayyar who studied the inscriptions of the caves in the Pāṇḍyan Country, relying on Chapter XX, vv. 54-56 of the *Mahāvamsa* as translated by L. C. Wijesinghe is inclined to believe that Mahinda and Ariṣṭha went to South India from Ceylon to propagate the teachings of the Buddha; but the original Pāli of the *Mahāvamsa* does not warrant such a conclusion.

Proceedings and Transactions of the Third Oriental Conference, Madras, p. 281.

16. These affinities will be noted in the detailed description of the Alphabet, below.

17. W. Geiger, *A Grammar of the Sinhalese Language*, 1938, p. 3.

18. Hultzsch, E., *Asoka*, plate facing p. 4, Second Girnār Rock Edict, lines 1 and 2, where three different types of 'ta' are found; plate facing p. 94, Separate Rock Edict of Dhāuli, lines 1, 2, 3, 8 and 12 for different types of 'ta', and lines 3, 7, 15, 19 for different types of 'da'. In Separate Edict II at Dhāuli, plate facing p. 100, the predominant 'ya' is the form common in the Western Records of Asoka, but in the other inscriptions of Asoka at Dhāuli the 'ya' used is the notched type.

Since then for nearly a thousand years the Brāhmī alphabet of Ceylon shared almost the same rate of development as the alphabet used in India. This is as it should have been, for after the introduction of Buddhism the cultural links between different parts of India and Ceylon became strengthened as had never been before.

For the purpose of studying the development of the Brāhmī script in Ceylon and its gradual transformation into the Sinhalese script I propose to divide the period from the 3rd century B.C. to the close of the 7th century A.D. into two stages.¹⁹

1. The early Brāhmī stage, from the earliest times to the end of the first half of the first century B.C.
2. The later Brāhmī stage, from the beginning of the second half of the first century B.C. to the close of the 7th century A.D.

The Early Brāhmī Stage

Before discussing individual letters of the early Brāhmī stage, perhaps it is not out of place here to offer a few remarks on the main features of the characters used during this period. Most of the records are engraved on the drip ledges of rock-caves and are therefore essentially short, rarely running into more than a dozen words. Mainly because of the uneven surfaces on which these records are engraved these early records lack that monumental gracefulness so characteristic of the inscriptions of Asoka.

Another interesting feature of these records is the absence, except in a few cases, of long initial and medial vowels²⁰ and of conjunct consonants,²¹ both of which occur in the inscriptions of Asoka. But, the fact that long vowels and conjunct consonants did actually exist phonetically though not represented graphically is testified to by linguistic evidence.²² Yet another very common feature shared by most of the early Brāhmī records of Ceylon is the occurrence in one and the same inscription of a variety of forms of one single letter.

The 'a' among vowels and *ta*, *ma*, *ya* and *ra* among the consonants are the letters that commonly lend themselves to variant forms in the same record²³.

19. A vertical line drawn downwards in Nicholas' chart at the end of the column demarcating the first half of the first century B.C., will make clear the reasons for such a division.

20. In an inscription of the Gallena Vihara in the N.W. Province, medial *ā* occurs as follows:—devānapiya mahā rāja gāmaṇi Abhayasa puta Tisayasa maha leṇa agatānāgata cātu disa sagasa. See Parker, *Ancient Ceylon*, pp. 445-446, Nos. 66 and 68.

21. *Epigraphia Zeylanica*, Vol. I, p. 15.

22. *A Dictionary of the Sinhalese Language*, 1935, p. XXV.

23. See for 'a', Āṇḍiyakanda 2, *E.Z.* I, plate 18; for 'ta', Āṇḍiyakanda 1, *E.Z.* I, Plate 18, also Vessagiriya Rock B. Cave Nos. 1, 2, *E.Z.* Vol. I, Plate 5; for *ma*, Vevälānna Rock, *E.Z.* I, Plate 19; for 'ya', *E.Z.* I, Plate 6, Rock C, Cave No. 6; for 'ra', *E.Z.* I, Plate 5, Cave No. 2(b).

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Though the Brāhmī records of the early stage, as are the later ones, are usually written from left to right, there are a few records which are written from the right to the left or in which the letters are written inverted or upside down.²⁴ In an inscription in the Gurugalleṇa at Ambalankanda in the Kegalla District there is such an inscription written from the right to the left with some characters inverted, the rest being left in their regular positions.²⁵ Parker has recorded an instance where the letters are not only written from the right to the left, but also are turned upside down and reversed.²⁶ It is curious to note that one of the cave records of the Pāṇḍyan Country noticed earlier contains letters written upside down.²⁷

The form and development of the individual characters of the early Brāhmī stage also need some comment.

A. As in the records of Asokan inscriptions, the vowel 'a' of the early Brāhmī stage provides an interesting variety of forms. It would appear that there were three main forms of 'a'—all, perhaps, derived from a primitive form which may have been somewhat like the 'a' of the Eran coin, Bühler, *Indian Palaeography*, Tafel I, col. I. The first, similar to the capital letter K, but turned towards the left, the second with the two arms curved instead of being straight, and the third with angular arms, the bends being almost right angles as represented in the 1st letter of Column 2 of Nicholas' chart.²⁸ The other forms of the letter are either developments from these letters or hybrid forms. Column 4 shows how cursive forms came into being at the beginning of the 1st century B.C.

I. In the period up to the first half of the first century B.C. this vowel is represented in Ceylon by a vertical stroke on either side of which at the middle are two dots. This symbol does not occur in the inscriptions of Asoka, nor is it known to occur in any other North Indian document of the same period. However, as stated already, it occurs in some inscriptions of 300-200 B.C. found in South India, together with the alternative form, consisting of three dots, which in these records is said to represent long 'i'.²⁹ Arikamedu pottery too contains this symbol.³⁰ It seems therefore that these two forms

24. In this connection I should like to quote a remark of the famous Egyptologist W. M. Flinders Petrie: "This same lack of direction may often be seen in uneducated writing, where such letters as N and S and Z are reversed. The turned S may even be seen in the epitaph of an archbishop of Ravenna." (*The Formation of the Alphabet*, p. 4).

25. H. C. P. Bell, *Kegalla Report*, p. 69.

26. Parker, *Ancient Ceylon*, p. 421. Ins. No. 42.

27. *Proceedings and Transactions of the First Oriental Conference*, Poona, 1919, p. 339.

28. For the purpose of this article the vertical columns in Nicholas' chart are numbered serially, column No. 1 being the first column with the key letters.

29. *A.R.S.I.E.*, 1911-12, plate facing p. 57. Kongarpuliyangulam and Tirupparan-gunram Ins.

30. *Ancient India (Bulletin of the Archaeological Survey of India)*, No. 2, p. 110.

were used indiscriminately to denote short 'i', but the 'i' with the vertical stroke and two dots later became confined to the representation of the long vowel. Bühler has observed in the Gupta inscriptions of the 5th century A.D. at Sāñci a long 'i' which is a derivative of the 'i' of the early Brāhmī records of Ceylon and South India.³¹ A similar 'i' has been noticed by Ojha in the Amarāvati and Jaggayyapeṭa inscriptions of the 2nd and 3rd centuries A.D.³²

Later South Indian alphabets such as the Tamil Grantha, the later Pallava and the early Chola alphabets retained a modified form of this letter to represent long 'i'.³³ The modern Sinhalese long *ī* is also a development of the Brāhmī 'i' with the vertical and two dots derived probably through the Grantha. In the early Brāhmī inscriptions of India, long 'i' was represented by four dots placed as if to mark the corners of a square.³⁴

U. There is hardly any noticeable difference between this character as represented in Ceylon and in the records of Asoka.

E. This letter as represented in the Ceylon records seems to be more primitive than even the type used in the records of Asoka, which is more cursive. In the latter the base stroke is not always horizontal, nor is the whole symbol symmetrical. The Ceylon letter is represented usually by an isosceles triangle with a horizontal base.

O. This letter is clearly more cursive than the Asokan type, in that its bends are curved and not angular as those found in the records of Asoka.

Ka. The earliest type of this letter represented by a cross formed of lines of equal length, resembles the type found in the Girnār inscriptions of Asoka. But there are other types, assigned to 2nd century B.C. which are less regular, both in the length of strokes and in the manner of their intersection. For example the 'ka' occurring in rocks B and C at Vessagiriya have their vertical strokes longer than the horizontal strokes.³⁵

Kha. This is one of the letters, occurring in the early Brāhmī records which do not resemble any of the well demarcated types found in the inscriptions of Asoka. In these latter the 'kha' takes the form of a hook opening downwards and terminating in a dot or a small circle or without either. In the Ceylon records the dot or the circle in which the main vertical trunk of the hook terminates is replaced by a continuation of this vertical trunk to form a small circle, a semicircle or a hook.

Ga. The earlier forms of this character are regular. But as is clear in Nicholas' chart the top of the letter tends to be flattened or curved. This perhaps is an indication that some of the scribes started writing a cursive hand as early as the beginning of the 1st century B.C.

31. Bühler, *Indian Palaeography*, Tafel VII, line 3, column I.

32. Ojha, *The Palaeography of India*, Plate XII.

33. *Travancore Archaeological Series*, Vol. I, p. 204.

34. D. C. Sircar, *Select Inscriptions*, Vol. I, Plate XXXIV, line 1.

35. *E.Z. I*, Plate 6, Cave No. 12.

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Gha. Up to the first half of the 1st century A.C. the 'gha' could be generally described as angular and similar in form to the type found in some of Kālsī inscriptions of Asoka, though the latter is generally taller than the Ceylon type which is flat. Compare letters occurring in Nicholas' chart, column 3 with Bühler, *Indian Palaeography*, Tafel II, l. 12, column iii. In some Ceylon records, however, the vertical stroke and the bottom curve on the left hand side tend to be curved, Nicholas' chart columns 4 and 5.

Ca. There are three distinct types :—

1. An angular type of which the lower element is formed of a square.
2. A cursive type with the lower unit curved at the corners.
3. A more developed cursive type.

A form similar to the first type occurs in the Mettuppatti Inscription (a);³⁶ type 2 is similar to the *ca* occurring in some of the Girnār Inscriptions. Type 3 can be compared to some forms occurring in the Brahmagiri Inscriptions of Asoka.³⁷ In the latter however, sometimes, the lower loop is formed on the right of the vertical stroke. It is to be noted that type 1 does not appear in any of the records of Asoka and that it is perhaps more archaic than any form found in those records.

Cha. This letter seems to be a very much developed form, when compared with the forms occurring in the records of Asoka and other early Brāhmī records of India. The form occurring in column 3 of Nicholas' chart may be compared with *B.I.P.*, Tafel II, l. 14.

Ja. In Nicholas' chart the aspirated form of the letter has been entered alongside with the deaspirated form. The only letter in the second column, the first and the second in the third column and the first in the fourth column represent the aspirated sound. The 'ja' as represented in column 3 is akin to the forms occurring in the Girnār Inscriptions.³⁸ But while in the Girnār records the 'ja' seems generally to be written in one stroke with only a mild projection to the right, the Ceylon form seems to be formed of two separate curves—one an upper flat curve opening towards the right and ending in a horizontal arm and the other a lower curve attached to the lower horizontal arm of the upper curve.

Jha calls for no remarks and is identical with the form found in contemporary Indian documents, as are the next three letters, *ta*, *tha* and *da*.

Dha occurs for the first time in Ceylon in the Tonigala inscription of the fourth century A.D.³⁹

Na calls for no remarks except to point out the short cross-bar that cuts across the vertical stroke of the *na* represented in the second letter of column

36. *A.R.S.I.E.*, 1912, Plate facing p. 57.

37. Hultzsch, *Asoka*, Plate facing p. 176, line 1.

38. *Ibid.*, Plate facing p. 4, II, line 1.

39. *E.Z.*, Vol. III, Plate 14.

4 of Nicholas' chart. From this specimen recorded by Nicholas it would appear that this cross-bar made its appearance quite early, although it was only in the 4th century A.D. that it came into general use to differentiate the cerebral *ṇa* from the dental which had by this time developed a serif.

Ta. In the early Brāhmī records of Ceylon there are three main types of *ta*. The first type, perhaps, the commonest and the most convenient to write in a script written from left to right, consists of a main vertical or slightly slanting stroke to which is attached at the middle a foot stretching to the right. This type, represented in Nicholas' chart by the first letter in columns 2, 3 and 4, is the representative type in the Gīrnār Inscriptions. The second type, not so common as the first, has the foot attached to it on the left and the main vertical stroke often inclines to the left. This form occurs in a Vessagiriya⁴⁰ record and is more commonly found in the records of Asoka,⁴¹ such as those at Brahmagiri and Dhauli. The third type consists of a vertical stroke from the lower end of which stretch out to the left and the right two short strokes of equal length.⁴² This form is typical of the records of Asoka found in the central and the eastern parts of India, such as those found at Delhi, Calcutta and Rummindēi. This type also occurs side by side with other forms in western and southern records of Asoka, such as Gīrnār and Brahmagiri.⁴³ Cursive forms of the first type are represented in Nicholas' chart by the second letter in columns 2 and 3, the second, the third and the fifth letter of column 4. A cursive form of the third type is represented by the fourth letter of column 4.

Tha. This letter is identical with the '*tha*' in contemporary records in India.

Da. There are four main types of '*da*.' The most archaic and therefore perhaps the earliest is angular and resembles the type occurring in the Delhi inscriptions of Asoka.⁴⁴ A type similar to this occurs in some of the Asokan records at Dhauli.⁴⁵

The second type consists of a semicircle like curve opening towards the left, to the two ends of which are attached two vertical strokes. This type is widely distributed throughout India. The third type has an irregular and wide mouthed curve, col. 2, 3rd letter in Nicholas' chart. This type resembles the type occurring in the Gīrnār Inscriptions of Asoka. The fourth type, a very much developed form is represented in Nicholas' chart by the last two letters in column 4.

40. *Epigraphia Zeylanica*, Vol. I, Plate 5, Rock B, Cave No. 1, l. 2.

41. Hultzsch, *Asoka*, Plate facing p. 176, l. 2 and Plate facing p. 94, ll. 1, 2, 3 and 8.

42. *Epigraphia Zeylanica*, Vol. I, Plate 6, Rock B, Cave No. 6.

43. Hultzsch, *Asoka*, Plate facing p. 176, ll. 1, 2 and 5 and Plate facing p. 4, II, 11. 1 and 2.

44. *B.I.P.*, Talef II, l. 25, columns IV and V.

45. Hultzsch, *Asoka*, Plate facing p. 88, Iv, l. 5.

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Dha.⁴⁶ As in the inscriptions of Asoka the 'dha' in the early Brāhmī records of Ceylon is written in two ways : with the vertical stroke on the left and on the right. The latter type is used occasionally, as in inscription No. 62, Parker, p. 421.

Na. In the early Brāhmī stage this letter has not undergone any changes worthy of note.

Pa. This letter is represented by two main types. In one, evidently the more archaic, the bottom is flat, while in the other the bottom is curved. The first type with a dead flat bottom does not seem to appear in contemporary records in India, though a form somewhat similar occurs in the Brahmagiri inscription of Asoka.⁴⁷ This type however makes its appearance later in the Pabhosā and the Hāthigumphā inscriptions attributed by Bühler to 150 and 160 B.C., but now attributed to the end of the first century B.C.

Pha does not appear to have been noticed by Nicholas in the early Brāhmī inscriptions.

Ba. This letter, as occurring in the early Brāhmī records, is regular in the sense that it does not lend itself to fundamentally variant forms. But it does not remain in all inscriptions in the shape of a regular square. It is noteworthy that advanced forms found in India as late as the 2nd century A.C. begin to make their appearance in Ceylon even as early as 2nd century B.C., cf. Nicholas third column, second letter and *B.I.P.*, Tafel III, l. 28, Col. VI. This shows that as early as 2nd century B.C. the Brāhmī script had developed to a point when some characters produced a variety of forms used contemporaneously.

Bha. The earliest 'bha' noticed by Nicholas seems to be a freak form occurring in an inscription found at Galleṇa Vihāra in the Vanni Hatpattu.

Ma. This is one of the letters that has produced a number of variant forms both in India and in Ceylon.

The main types found in Ceylon during the early Brāhmī stage are as follows :—

Type 1. The square form represented in Nicholas' chart by the first letter in columns 2, 3 and 4.

Type 2. This is a derivative of type 1, the difference being that the bottom of this type is curved. It is represented by the second letter in columns 2, 3 and 4 in Nicholas' chart.

Type 3. This variety is formed of a circle to the top of which are attached two short strokes that curve inwards, (cf. 'ma' in *B.I.P.*, Tafel II, Col. IV).

⁴⁶ The conjunct consonant *dāha* has been inserted with the letter *dha* in Nicholas' chart. It should be noted that *dāha* is represented by the third and the fourth symbols in column 5, by the third in column 6, by the second in column 7, by the third, fourth and fifth in column 8, and by all the symbols in columns 9, 10, 11 and 12.

⁴⁷ Hultzsch, *Asoka*, plate facing p. 176, l. 3.

Type 4. This type of 'ma' resembles the typical 'ma' in the Gīrnār inscriptions of Asoka. (*B.I.P.*, Tafel II, Col. IX). It is to be distinguished from the 'ma' in which the two short upward strokes are added to the body of the letter. (*B.I.P.*, Tafel II, Col. VIII).

Type 5. This is a very much developed type, almost similar to the form that was prevalent in the later Brāhmī period, but without the serif. This advanced type may be compared with the type found in the Nāsik inscriptions of a later period. (*B.I.P.*, Tafel III, Col. XIII).

Ya. This letter generally resembles the type found in the Gīrnār inscriptions of Asoka. It is noteworthy, that in some of these letters the vertical stroke does not touch the bottom curve. (See *E.Z. I.*, plate facing p. 144, inscription No. 1). The notched 'ya,' typical of the inscriptions of Asoka found in the eastern portion of India, occurs in Ceylon occasionally (see Parker, *Ancient Ceylon*, p. 421, inscription No. 57).

Ra. The 'ra' is represented by three main types: the cork-screw type, the type with a slightly wavy line and the type formed of a straight vertical stroke. The first two types are frequently met with in the Gīrnār and Siddhār-pur inscriptions of Asoka.

La. This letter, during this period resembles the type found in the Gīrnār inscriptions. But as in the case of the 'ma' (with the angular bottom) a few have a square base. A similar type is noted by Bühler in the Kālsi and Delhi Inscriptions of Asoka. (*B.I.P.*, Tafel II, l. 35, Cols. III and V).

Va. This letter is regular, but developed forms begin to appear in the 2nd century B.C., when the lower curve tends to become triangular. In the first half of the 1st century B.C. a well developed form with a triangular bottom makes its appearance.

Śa. The Ceylon type of śa resembles the type in the Kālsi inscription of Asoka. The arrow-shaped śa (see *B.I.P.*, Tafel II, l. 37, Cols. III and XI) and the one with the curved top (*ibid.* Cols. XIII and XIV) are not noticed in Ceylon.

Sa. A peculiarity of the earliest 'sa' occurring in the early Brāhmī records is that it has an angular left limb instead of a curved one. Later 'sa's of this period conform to the common type of 'sa' found in the inscriptions of Asoka. During the last stages of this period—i.e. in the 1st half of the 1st century B.C. the left limb and the body of the letter both undergo certain changes in form.⁴⁸

Ha. This letter resembles the Gīrnār type, in which the horizontal stroke on the right is attached to the body of the letter at the end of the shorter

48. Cf. especially 1st and 2nd letters in column 3 of Nicholas' chart.

vertical stroke. Perhaps a 'reminiscence' of this letter occurs at Āṇḍiākanda, cave No. 5.⁴⁹ A character similar to those occurring in the southern inscriptions of Asoka, i.e. a 'ha' in which the horizontal stroke on the right inclines downwards showing that originally the horizontal stroke was attached to the right arm of the letter somewhere below its extremity, occurs in an inscription at Kūragala in Sabaragamuwa Bintāna.⁵⁰

La. The earliest instance, according to Bühler, where the cerebral *la* occurs is the inscriptions at the Bhaṭṭiprolu Stūpa. The *la* in these records consists of a vertical stroke curving towards the right and forming a hook. Two short horizontal strokes are added on the right, one to the top of the main vertical stroke and the other about half way down it. A more developed form is noticed at Bharhūt and Pabhosa, Bühler, Tafel II, cols. XVIII and XX. But the type that occurs in Ceylon bears a distinct resemblance to the type occurring in the records of Uṣavadāta, Bühler, Tafel III, Cols. VII and VIII, and in some Jaina inscriptions from Mathura.⁵¹ It was generally believed that the cerebral *la* did not occur in the records of Asoka, but H. Leuders⁵² has shown that it does occur in several inscriptions. This letter is the same as the Asokan *ḍa* but the lower end of the lower vertical stroke has thickened into a dot.⁵³ There is no doubt that it is this form that later developed into the symbol recorded in cols. 4 and 5 of Nicholas' chart. Just as the angular *ḍa* later became round in form the *la* too seems to have assumed a round form and the dot which was at the end of the lower vertical seems to have developed into a small semicircle opening towards the right, cf. *ḍa* in cols. 3, 4 and 5 and *la* in columns 4, 5 and 6 in Nicholas' chart.

The foregoing comments on the characteristics of the individual letters of the script used in Ceylon would show that the letters can be divided into three groups: 1. The letters which are peculiar to Ceylon, 2. The letters which are similar to those occurring in the records of Asoka found in the western and southern parts of India, such as Gīrnār, Brahmagiri and Siddhārpur, and 3. The letters which are similar to those occurring in the same records found in the central and eastern parts of India. Further, it would have been observed that several characters used during the early Brāhmī period in Ceylon show a considerable affinity to the types occurring in the inscriptions of Asoka found in the west and the south of India. Such affinities can be seen in *a*, *ja*, *ta*, *da*, *ma*, *ya* and *ha*. It may also be added that a study of the early records of Ceylon shows that where a letter in the records of Asoka has deve-

49. See *Epigraphia Zeylanica*, Vol. I, Plate 18, No. 5, 5th letter.

50. *J.R.A.S. (C.B.)* XXXII, p. 167; also *E.Z.* I, Plate 6, Rock C, Cave No. 6, 2nd letter.

51. *Epigraphia Indica*, Vol. I, Plate facing p. 393, Ins. No. XXVIII.

52. *J.R.A.S. (of Great Britain and Ireland)* 1911, pp. 1081—1089.

53. Hultzsch, *Asoka*, Lauriya-Nandangarh Pillar VI, l. 1, in plate facing p. 150 and Delhi-Mirath Pillar V. l. 11, in plate facing p. 140.

loped two forms—one peculiar to the west and the south and the other to the east of India, the Ceylon records seem to have shown a preference for the western or the southern type. It should, however, be remembered that forms peculiar to the central and eastern parts of India too occur side by side with the commoner forms.

The Later Brāhmī Stage

The later Brāhmī stage extends from the close of the first half of the first century B.C. to the close of the first half of the 5th century A.D., with a further transitional period of about two centuries. Roughly the upper and lower limits of this period excluding the transitional period correspond to the end of the reign of Vaṭṭagāmani and to the end of the reign of Kassapa I.

The main developments in the Brāhmī script of this period may be indicated thus :

1. Letters having the vertical strokes develop the so-called serif—a short horizontal stroke attached to the top of a vertical stroke.
2. Lengthening of the lower ends of vertical strokes, which sometimes curve towards the left, after being lengthened.
3. The right vertical stroke of *la*—is lengthened upwards and sometimes it curves to the right and later to the left.
4. Lower unit of *ḍa* and *la* tends to be curved, opening towards the right.
5. Circular limbs of *va* and *ma* sometimes take the form of a triangle.
6. In letters having two vertical arms of unequal height in the early Brāhmī period the arms become equal in height.
7. Angular letters and angular limbs of letters become round—*e*, *ga* and *ta* (but in Nicholas' chart, the cursive form of 'e' does not appear).

Though these changes become most prominent in the second half of the 1st century B.C. with the introduction of the serif, the tendency to adopt cursive forms is noticeable even as early as the first half of the first century B.C. As in India, even in the records of Asoka, cursive forms found a place side by side with the archaic forms, even so in Ceylon one finds advanced forms making their appearance quite early, e.g., *ga*, *ca*, *ta* and *ḍa* of the first half of the first century B.C. in Nicholas' chart. A certain stage of development that was noticeable in India, both in the north and in the south, seems to be totally absent in Ceylon. Prior to the appearance of the serif in India, the top and bottom ends of strokes in Brāhmī characters were thickened.⁵⁴ This stage which lasted during the century and a half immediately preceding the Christian era seems to have eluded Ceylon, when the serif seems to have been introduced immediately after the early Brāhmī stage.⁵⁵ A noteworthy

54. Bhārhut, Pabhosa, Hāthīgumphā and Nānāghāt scripts in Bühler, *Indian Palaeography*, Tafel II.

55. In the Slab Inscription of Khudda Pārinda the serif does not seem to have been fully developed. In certain letters there is only a thickening of the upper extremities of vertical strokes, *E.Z.* IV, Plate 11.

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feature of the script of the period under review is the recurrence of old forms of letters at times when they should be regarded as obsolete. For example the short 'i' with the vertical line and two dots occurs in an inscription of the 5th century.⁵⁶ The inscribed slabs recently unearthed at the Dakkhina Vihārē, Anurādhapura, are also noteworthy for the obsolete form of the script used therein. Though the script may be assigned to the second or the third century A.C. the record contains a reference to a king named *Dalopatissa*, *Dāthopatissa* (640-652 A.D.).

A study of the column in Nicholas' chart, for the first half of the 1st century B.C. and the subsequent periods will give a clear idea of the development that occurred in the Brāhmī script in Ceylon round about the 1st century A.D. and of how these developments were slowly but surely carried on till the end of the 5th century when we come across a period of transition.

As far back as 1881, Edward Müller recognized the affinities between the Ceylon records of the first and second centuries A.D. and those in the caves in Western India.⁵⁷ Why the developments indicated above should appear at the close of the 1st century B.C. and why there should be this affinity between the styles of writing in Ceylon and that in Western India, can, perhaps be explained if we pause a moment over the relations between India and Ceylon round about the beginning of the Christian era. Cultural relations between India and Ceylon established by Mahinda continued to benefit the two countries and to keep them in touch with each other for centuries thereafter. In the reign of King Duṭṭhagāmaṇi it appears that Ceylon had connections with several parts of India.⁵⁸

During the reign of Vaṭṭagāmaṇi, when the Brāhmaṇa Tissa revolt and famine occurred large numbers of bhikkhus, perhaps, some of the most learned among them, are said to have gone across the sea to South India, and to have remained there till conditions at home had settled down before returning to Ceylon.⁵⁹ Bhikkhuṇis were also invited from India by Vaṭṭagāmaṇi to teach the *Vinaya* in Anurādhapura.⁶⁰ Constant intercourse between different places in the Āndhra country and Ceylon had also been established in very early times, as a result of well-established trade-routes.⁶¹ The practice of commencing an inscription with the auspicious word 'Siddham', perhaps, bears testimony to this close association between Ceylon and the Andhra country.⁶² Further-

56. See Nicholas' chart and also Müller, *Ancient Inscriptions of Ceylon*, (Plates) No. 85

57. Müller, *Ancient Inscriptions of Ceylon*, p. 27.

58. *Mahāvamsa*, XXIX, 32-43.

59. Adikāram, *Early History of Buddhism in Ceylon*, pp. 73, 74.

60. *Ibid.*, p. 77.

61. B. V. Krishnarao, *A History of the Early Dynasties of Andhradesa*, pp. 75 and 79.

62. See *Epigraphia Zeylanica*, Vol. I, p. 22, and p. 69 and D. C. Sircar, *Select Indian Inscriptions*, Vol. I, p. 186. This word occurs in a large number of Inscriptions at Kuṇḍā, Karle, Junnar and Kāñheri. See Burgess and Indraji, *Inscriptions from the Cave Temples of Western India*, plates facing pages 4, 16, 33, 36, 37, 38 and 51.

more the close of the first century B.C. saw the occurrence of two events which had far reaching effects on the religion and culture of the people of Ceylon. The first was the occurrence of a schism in the Saṅgha of Ceylon for the first time and the second was the committing of the *Tipiṭaka* and other Buddhist texts to writing. While the first event set afoot a series of controversies and dissensions in the Buddhist order, the second laid the foundations of the first period of literary activity in Ceylon. The intermittent emergence of Mahāyānist tendencies in the important vihāras of Anurādhapura and the resulting controversies must, indeed, have had their repercussions on the script that was used in the country. For instance Ceylon's associations⁶³ with Nāgārjunikoṇḍa, the celebrated centre of Mahāyānist learning in South India seems to have had a very palpable effect on the script used in Ceylon in the 3rd century A.D. The highly ornate characters used in the fragmentary inscriptions from Jetavanārāma bear clear signs of being influenced by the style of writing used in the many inscriptions discovered at Nāgārjunikoṇḍa.⁶⁴ The *ī* formed of three short curved strokes placed in a circle, used in Ceylon in the 3rd and the fourth century A.D. seems to be a variation of the form used at Nāgārjunikoṇḍa.

Before concluding this paper it is perhaps not out of place here to add a few remarks about materials used for writing on and their bearing on the development of the script employed in Ceylon. The commonest material on which the oldest records are inscribed is stone and there is at least one instance when marble too has been employed for the same purpose.⁶⁵ Gold plates too, it would appear, were sometimes used as a writing material but the very rarity of the metal would have placed it beyond the reach of the common man. Mahinda's prediction that the Lohapāsāda would be built by Duṭṭhagāmaṇi was written on a gold plate kept in a chest.⁶⁶ The only instance, we know, of a gold plate being used for this purpose is the Vallipuram gold plate of the 2nd century A.D. found in Jaffna.⁶⁷ There is also the popular belief that the *Tipiṭaka* was written on plates of gold and that they were deposited in a rock at Aluvihāra.⁶⁸ Copper in the form of plates forming a book, was a very common writing material in India, but in Ceylon the earliest known copper—plate record is the recently discovered grant of Vijayabāhu I. But we have

63. *Epigraphia Indica*, Vol. XX, p. 16, *et. seq.*

64. *Epigraphia Zeylanica*, Vol. IV, pp. 273-285 and Plate 27.

65. *Jetavanārāma Fragmentary Inscription*, *E.Z.*, IV, p. 274.

66. *Mahāvamsa*, XXVII; vv. 5-6.

67. *E.Z.* IV, p. 229.

68. Adikāram, *Early History of Buddhism in Ceylon*, p. 79, and *Mahāvamsa*, XXXIII, v. 100.

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instances of copper plaques and clay tablets containing inscribed religious formulae, deposited in shrines in the 7th or the 8th century.⁶⁹

The literature of the period offers us little help by way of providing information on the writing materials used in ancient Ceylon. But the *Mahāvamsa* contains a few references, which throw some light on this problem. We are told for instance, that Vattagāmaṇi while in hiding at Vessagiri made a grant of land to a bhikkhu on a ketaka leaf,⁷⁰ (*Pandanus Odoratissimus*). In India cotton cloth and silk were also used for writing official and private documents,⁷¹ and it appears that this practice was prevalent in Ceylon too. We are told in the *Mahāvamsa*, that when the eight theras who were sent to the heaven of the thirty-three gods to make a plan for the Lohapāsāda, they copied the plan "with vermillion (*hingulinā*) on a linen cloth."⁷² Asoka is said to have used red arsenic (*manosilā*) with a gold tulikā to mark a line on the branch of the Bodhi tree, before it severed itself from the main tree.⁷³ The *Samantapāsādikā* refers to mercury and sulphur compounds, red arsenic, yellow orpiment and black pigment as *bhājanīyabhaṇḍāni*.⁷⁴ One of the relic caskets recently discovered at the southern Vāhalkaḍa of the Ruvanvālisāya has an inscription faintly incised on the outside and painted over with a kind of ink. On palaeographic grounds the inscription has been assigned to the 2nd century A.D.⁷⁵ "Manosilā" and "hinguli", which were used as substitutes for ink were applied on to the writing material with a brush—Pali, *tulikā*; Sinhalese, *tella*.

A very common material which has been used for writing on for centuries in Ceylon is the ola,⁷⁶ but it is difficult to find out exactly when it came into use in Ceylon. The oldest ola leaf manuscripts which are known to me are, (1) a manuscript of the Cullavagga deposited in the Colombo Museum Library, assigned to the Dambadeniya period by Dr. S. Paranavitāna and (2) a manuscript of the Visuddhi Magga Tīkā available in the library of the University of Ceylon, which too can be considered to have been written during the same period. Dr. Paranavitāna has suggested that the ola leaf came into use in Ceylon somewhere in the 8th century.⁷⁷ This suggestion is based on the

69. *Epigraphia Zeylanica*, III, p. 200, Copper plaques have been found also at Vijayārāma monastery. See *A. S. C. Annual Report*, 1891, pp. 12-15, also see K. A. Nilakantha Sastri, *Foreign Notices of South India*, p. 74, where Fā-Hien says that kings of Ceylon recorded grants of land on metal plates. See also *E.Z.*, III, p. 171.

70. *Mahāvamsa*, XXXIII, v. 50.

71. Bühler, *Indian Palaeography*, p. 92.

72. *Mahāvamsa*, XXVII, v. 18. Vermillion is described as a brilliant scarlet pigment obtained from the sulphide of mercury in its natural form.

73. *Mahāvamsa*, XVIII, vv. 38-39.

74. *Samantapāsādikā*, P.T.S. Edition, 1947, p. 1243.

75. *J.R.A.S. (C.B.)*, XXXVII, p. 7.

76. There are two varieties of palms in Ceylon: (1) *Corypha Umbraculifera*, Sinh. *tala*, Tamil *talpattu*. (2) *Borassus Flabellifer*, Sinh. *tal*, Tamil *panai*. The first is used more commonly for books in Ceylon.

77. Introduction to Nāgirikanda Rock Inscription, *E.Z.*, IV, pp. 115-122.

sudden development of the letters of Brāhmī alphabet into an alphabet of round forms. According to his theory, this sudden change is due to a change in the writing materials used, namely to the substitution of ola leaves in place of some other material which had been used in the period up to the 6th century. This material, he has suggested, was bamboo boards. In support of his theory that bamboo boards were used as writing material in ancient Ceylon, Dr. Paranavitāna quotes the phrase '*pothakavaṃsaphalake vaṇṇādikam-māni viya*' from the *Vaṃsatthappakāsinī*, the Commentary to the *Mahāvamsa*. Taken in its proper context, i.e. as a comment on stanza 13 of Chapter XI of the *Mahāvamsa* it would be quite clear that '*pothakavaṃsaphalaka*' refers to the bamboo-board covers of a book and not to the bamboo-boards forming the book itself. The term '*vaṇṇādikamma*' refers to the decorative floral and other designs in colour which are often painted on the wooden boards that form the covers of ola leaf manuscripts.

On the other hand an examination of Nicholas' chart has shown that round forms are found even in the early stages of the Brāhmī script⁷⁸ and that the number of round forms increased progressively till the 5th century A.D. when the only form which could not be written without using a horizontal stroke was the letter '*ka*'. The following table indicates the number of angular forms and round forms at different periods :—

<i>Details of Letters</i>	<i>2nd Half of 3rd Century B.C.</i>	<i>1st Half of 1st Century B.C.</i>	<i>5th Century A.C.</i>
Number of letters having one or more horizontal strokes	17	16	12
Number of letters having one or more horizontal strokes for which there are alternative forms without horizontal strokes	9	12	11
Number of letters with horizontal strokes, for which there are no alternative forms	8	4	1
Number of letters without horizontal strokes	26	30	33

As seen in the figures above, even if it is assumed that ola leaves came into use after the 5th century it would not have been necessary to change the alphabet in order to accommodate the ola leaf. Furthermore it is not altogether impossible for angular forms or letters with horizontal strokes to be written

78. Dr. Paranavitāna admits this.

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on ola leaves, but only a certain degree of care has to be exercised when incising horizontal strokes. In fact, ola leaves have been used for copying works in Tamil and Nāgarī characters which are angular and of which many have horizontal strokes.⁷⁹

The palm tree is commonly mentioned in the *Tipiṭaka* and Burnell says that its use is of considerable age,⁸⁰ and that in the seventh century A.D. this material is repeatedly mentioned in the life and travels of Hiouen Thsang. Palm trees are commonly grown in certain parts of Ceylon. In the *Samantapāsādikā*, in the course of the discussion on the Pācittiya rules, Buddhaghosa says that a monk who incises letters on palm leaves while they are in the tree commits an offence.⁸¹ Describing the different kinds of coins the same work refers to māśaka coins made of ola leaf with figures incised on them.⁸²

Explaining what articles can be termed "*garubhaṇḍa*" the *Samantapāsādikā* says that even a single ola leaf (*tālapaṇṇa*) can be regarded as a *garubhaṇḍa* provided it is offered to the Sangha as a community.⁸³ In this place the word *tālapaṇṇa* can be understood in the sense of the original palm-leaf unprepared and uncut. But a few lines below in dealing with the same subject Buddhaghosa goes on to say that even a blank book, *rittapotthako*, can be regarded as a "*garubhaṇḍa*", be it even only eight inches in length. The handle of a style eight inches in length *aṭṭhangulasūcidanḍa* is also referred to in the same connection.

The evidence adduced above seems to me to be sufficient to establish the fact that the practice of using palm leaves as a writing material was known in Ceylon in the 5th century the latest. The efficiency of the palm-leaf as a writing material, particularly its resilience, thinness, durability and lightness of weight would have made it popular in the country and would have supplanted all other varieties of writing material used earlier.⁸⁴

If it was not the appearance of the ola-leaf that transformed the script used in 5th and the 6th centuries into what it became in the subsequent period, other explanations have now to be sought for this unexpected trans-

79. Burnell, *Elements of South Indian Palaeography*, Plate XXI; also, Rev. W. Taylor *Catalogue Raisonné of Oriental Manuscripts*.

80. Burnell, *Elements of South Indian Palaeography*, p. 85.

81. *Samantapāsādikā*, P.T.S. Edition, p. 765: "Hattha-kukkucena mudukesu indasālanuhikkhandādisu vā tattha jātakatālapaṇṇādisu vā akkharaṃ chindantassāpi eseṇa nayo".

82. *Ibid.*, p. 499: "Tattha kahāpaṇoti suvaṇṇamayo vā rūpimayo vā pākātiko vā, lohamāsakoti tambalohādihi katamāsako, dārumāsakoti sārādārunā vā veḷupesikāva vā antamaso tālapaṇṇenāpi rūpam chinditvā katamāsako".

83. *Samantapāsādikā*, P.T.S. Edition, 1947, p. 1243. I owe this reference to my colleague Mr. M. Sṛī Rammaṇḍala.

84. It is interesting to note that in Ceylon in the fifth century the prices of articles exposed for sale were indicated on labels. See *A Record of Buddhist Kingdoms*, translated by James Legge, 1886, p. 101.

formation. Dr. Paranavitāna has referred to the influence of the Pallava Grantha script on the Sinhalese script.⁸⁵ The Sinhalese seem to have had considerable connections with the Pallavas of South India just at the period when these changes in the Sinhalese script referred to above took place.

After the Brāhmī alphabet was introduced to the country the script was ever in a process of development but consistent with the changes that were going on in India. The script which was angular at first, gradually assumed round forms as a concession to convenience and speed. But the period immediately following was one of intense literary activity. The *Dīpavaṃsa* and the *Mahāvaṃsa* and the commentaries of Buddhaghosa were written during this period. Even the layman seems to have begun to interest himself in literary pursuits during this period as is testified to by the earliest forms of the graffitti found on the mirror-wall at Sīgiriya. The *Cūlavāṃsa* says that poets wrote numerous poems in the Sīhala tongue in the reign of Aggabodhi I (564-598 A.D.)⁸⁶ and the *Nikāya Saṅgraha*⁸⁷ and the *Pūjāvaliya*⁸⁸ have preserved for us the names of twelve of these poets. Thus it would be seen that there was at this time a genuine demand for a script that would enable writers to produce books with minimum effort and maximum speed. Within limits the script that was already in use in the country had attempted to meet this demand, when Ceylon came in contact with a people who had developed an efficient script. These were the Pallavas of South India, with whom Ceylon had relations from the 6th century onwards. King Sinha-
viṣṇu, 580-600 A.D., of the Pallavas is said to have defeated the Sinhalese king at the time. And King Mānavamma of Ceylon (second half of the 7th century) being harassed by Dāṭhopatissa II fled to India and entered the service of the Pallava King Narasiṃhavarman I (630-668 A.D.)⁸⁹. In other spheres of art too the Pallavas seem to have influenced the Sinhalese during this period. The Gedige at Nālandā and some of the sculptures at Isurumuniya are considered to have been executed according to the Pallava style of sculpture.⁹⁰ The script of the Pallavas was also used in Ceylon in some inscriptions set up in the 7th or the 8th century.⁹¹ These circumstances, perhaps, led the Sinhalese scribes to adopt at least some of the characters of the Pallava Grantha alphabet. The extent to which this adoption was carried out is beyond the scope of this paper, but a comparison of the script of the 7th and the 8th

85. *E.Z.*, Vol. IV, p. 117.

86. *Cūlavāṃsa* XLII, 13.

87. *Nikāya Saṅgraha* Published Government Printer, 1907, p. 15.

88. *Pūjāvaliya*, ed. Bentota Saddhātissa Thero, p. 730.

89. Codrington, *A Short History of Ceylon*, pp. 35-36.

90. *A.R.A.S.C.*, July, 1937, pp. 16-19. Codrington, *A Short History of Ceylon* p. 186.

91. Tiriyāy Rock Inscription, *E.Z.*, IV, pp. 312-319; the Trikāyastava in an Inscription at Mihintale, *E.Z.*, IV, pp. 242-246.

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centuries with the contemporary Pallava Grantha script will show to what extent the latter had a bearing on the development of the Sinhalese script.

By way of summarising the contents of this paper, I may point out the possibility that the Brāhmī alphabet was introduced to Ceylon before the arrival of Mahinda in the reign of King Devānampiya Tissa. Though the evidence provided by the *i* and the *ma* peculiar to Ceylon may not be sufficient for such a conclusion, their occurrence in Ceylon cannot otherwise be explained. Further, the absence of long vowels and conjunct consonants, both of which occur in the records of Asoka, seems to me to support this view. If, as is generally believed the Brāhmī alphabet was introduced by the Buddhist monks who arrived in the time of Devānampiya Tissa, it is difficult to understand why the Sinhalese scribes should have refrained from using long vowels, and conjunct consonants. The changes that occurred in the script in Ceylon at the close of the first century B.C. and how for the next five centuries or so it was influenced first by the script of the western caves in India, such as those at Nasik and Karle and then perhaps by the script used in the south-eastern part of India have also been pointed out. The next two centuries, it has been shown, was a period of transition towards the end of which the influence of the Pallava Grantha alphabet is seen in the script which was now transforming itself into the Sinhalese script. The different kinds of writing material used in Ceylon in early times have also been discussed and it has been possible to show that the ola leaf was used in Ceylon before the fifth century.

P. E. E. FERNANDO

*A Review of the Colombo Cost-of-Living Index Number*¹

THE Colombo cost-of-living index number was constructed by the Statistics Section of the Commerce Department and published in the *Ceylon Trade Journal* in September, 1940. Since then it is being compiled and published monthly by the Statistics Department. The index was calculated back up to August, 1939. In September, 1942, slight alterations in the weighting of cloth, tea and coconut oil were made. Soon afterwards, in June, 1943, the index was completely revised and an entirely new system of weights was adopted. This revision changed the character of the index so much that it would, perhaps, be better to regard the revised series not as a continuation of the old index, but as a different one. For brevity we shall call the first series C1 and the revised series C2.

Family-Budget Enquiry, 1940

The index C1 was based on the data collected by a working-class family budget survey. The Report of the Survey published in the *Trade Journal*, September, 1940, does not mention the exact period in which the inquiry was undertaken. The enquiry covered a period of 14 days and the Report claims it to be "intensive and widespread".

The sample selected for investigation was spread over all the working-class areas of the city and was selected at random. Altogether 351 budgets were accepted for construction of the index.

Adequacy of the Sample

The Report does not give the percentage of the sample-population to the total working-class population of Colombo. Without this information the adequacy of the sample cannot be properly judged.

The working class population or even the total population of Colombo City for the year 1940, is not available. The Census of 1931 and 1946 give the figures at 284,155 and 355,374 respectively. The average rate of growth during this period, therefore, was 4,748 per year and assuming this growth-rate to prevail in the period 1931 to 1940, the estimated population of 1940 would be 326,887. The year 1931 was, however, a depression year while 1940 was a year of higher employment in cities. Hence the actual increase, perhaps, was much higher than the average rate. The figure 326,887 can, therefore, be regarded as the lower limit of our estimate. Let us assume that the percentage of working-class population to the total population in the city lies

1. I am grateful to Mr. H. Nandi and Mr. S. Bhattacharya of the Indian Statistical Institute, Calcutta, for carefully going through the MSS. and offering many criticisms.

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between 75 per cent. and 90 per cent. i.e., between 245,165 and 294,198. The Report gives the average population per working-class family as 5.64. The total population surveyed was, therefore, 1,980, i.e., 0.7 to 0.8 per cent. or less of the total working-class population. The Bombay family-Budget enquiry was based on a 3 per cent. sample, though the sample-population was 1,469 families. The Madras enquiry was based on a 3 per cent. sample with a sample population of 641 families. The Madras sample was, however, very carefully selected. For such a small working-class population as that of Colombo, a sample covering 6 to 10 per cent. of the total working class families in the city, would, perhaps, give more satisfactory results.

Inclusion of Workers of Unorganised Industries

The families surveyed were mostly of workers who were not employed in any organised industry and whose earnings were irregular. This is a serious drawback of the index. For the cost-of-living index is needed mostly in settling wage-disputes, in fixing minimum wages and in granting compensation for higher prices, and these problems arise mostly in organised industries. There is no reason to believe that the workers with irregular income and employed in unorganised industries would have the same standard of living as the workers of organised industries enjoying a regular income. The habits of life and the ways of consuming of the two groups are likely to differ much. It would be wrong, therefore, to infer the cost-of-living of one group from that of the other. The error arising out of this factor could have been easily avoided, if the families were chosen industry-wise, instead of area-wise, the later method being employed only in case of unorganised workers.

Income Limits

The Report of the Survey does not give any income limit of the working-class families investigated. Absence of an income limit may reduce the homogeneity of the sample and increase the sampling error. Economists would further deplore the omission of income distribution in the Report. For, such omission prevents a factual study of demand and its measurement and of consumption, etc. The authorities seem to have kept the construction of the index number as their sole aim and were not conscious of the other valuable uses of such data.

The Index Number

Both the indices C₁ and C₂ have been compiled by averaging the price-relatives for different commodities, generally consumed by the workers, weighted arithmetic average being used to combine the price-relatives. For the index C₁, the average prices for the period, November, 1938 to April, 1939 are taken as the base period prices. The selection of this period as the base-period is justified, for prices were fairly steady during this period and it facilitated comparison of war and post-war period prices with the year preceding the war.

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The index C2 has November, 1942, as its base. The selection of this period as the base period has no justification, except that of expediency. The prices were rising steeply in this period and the consumption-pattern was in a flux. The new base was adopted and the index was revised, because it was proposed to link the high-price allowance to the cost-of-living index on a sliding scale, which gave the index a social importance which it never enjoyed before.

Method of Compilation

In both C1 and C2 the method of compilation and the articles included are the same, the difference being in the weights used and in the method of selecting the weights and the base period. A separate index is constructed for each of the sub-groups: Food, Fuel and Light, Rent, Clothing and Miscellaneous items and the general index is obtained by combining them by the method of weighted arithmetic average.

Items Included

In the food-group 19 items were selected which gave a coverage of 98.5 per cent. of the total expenditure on food, as shown in the Report of September, 1940. The Report of June, 1943, does not mention the coverage. In housing, the average rent of thirty selected houses is taken. In the miscellaneous group, expenditures on amusement, charities and ceremonies, and services are excluded. The exclusion of amusements on which taxes, were heavy during the war period, has lowered the index figures somewhat.

The way in which the index for cloth is constructed makes the index liable to serious criticism. An index of cloth prices constructed entirely for a different purpose, with a system of weights, which have no relationship whatsoever to the expenditures of workers on cloth, was adopted without alteration. This index number of retail prices of piece-goods was "prepared to examine the effects of the quotas" and "the weights for this index are obtained from the total imports and local production for the four years 1935-1938". It is sought to justify the use of the index on the ground that "it was not possible to obtain full details as to expenditures on various types of clothing within the period of investigation. Only an estimated figure of the average monthly expenditure on clothing was, therefore, available". It is difficult to understand, however, why, in spite of an "intensive" investigation lasting for 14 days, the investigators failed to obtain any information about the types of cloth generally consumed by the working-class families. An index constructed with these types of cloth and weighted according to "the estimated figure of the average monthly expenditure" would have given much better results.

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In September, 1942, the clothing index was slightly improved by omitting luxury articles, such as art-silk, printed goods and broad-stuffs. Even then it remained unfit for inclusion in the cost-of-living index, because of its different systems of weighting and choosing the types of cloth.

Units Undefined

The exact interpretation of C₁ is difficult ; for, the quantities which are used for weighting are not given. In the case of C₂ we are given a sample composition of the complex of commodities, the change in the value of which the index tries to measure.

The units of the commodities at which price-quotations are obtained are not given either in C₁ or in C₂. For example the price index of rice was 111 and 208 in 1940 and 1942 respectively, showing a rise of 97 points in the period. In what unit was the price-quotations obtained—was it in rupees *per lb.*, or *per measure*, or *per cwt.* ? The exact definition of the unit of price-quotations is important for, the price-change per cwt. and per lb. may not be the same. Secondly, units of price-quotations affect the weights and thus the average of the prices. Hence the commodities, the price-quotations of which are obtained in units higher than that at which workers make their purchases, get an excessive weight. Moreover exact interpretation of the price-change of services, education, etc., becomes difficult, unless the units of price-quotations are clearly defined.

Weights Used

In C₁ the following system of weights obtained from the family-budget enquiry of 1940, was adopted :—

Food	..	..	..	52.40
Fuel and Light	..	..	..	6.28
Rent	..	..	..	15.96
Clothing	..	..	..	8.36
Miscellaneous	..	..	..	17.00
				<hr/>
				100.00
				<hr/>

In C₂ the weights were completely altered. In justification of the new weights, the Report published in the *Trade Journal*, June, 1943, (and also in a *Sessional Paper* of that year), says : “ During the latter half of the year it became evident that with the radical changes in the basic food-stuff, the reduction in the rice-element in food and the inability to obtain certain articles included in the budget, . . . a revision of the family-budget should be undertaken. A Committee examined the question and made certain recommendations.

As a result of these recommendations the revised budget at prices ruling in November, 1942, is now adopted as the basis of the index from November, 1942". What exactly those recommendations were, are not known, nor can we get any information about the reasons for making them. The Report gives a detailed list of expenditures on different items, but it does not say anything about the methods by which the list was compiled. Was it based on a family-budget enquiry? if so, what was the size of the sample? How was it selected? What was the income range? It is not possible to get any information on these matters from the reports. It is not possible, therefore, to pass any judgment on the merits of these weights from a direct study of the Report.

It is possible, however, to examine the family-budget presented in the Report for internal consistency by an indirect method—by calculating the change in the physical volume of consumption in the two periods 1940 and 1942.

Let P_0 be the price of an article in the period T_0 and P_1 the price in the period T_1 . Let the expenditure on an article in the two periods be V_0 and V_1 respectively. The quantities consumed in the two periods T_0 and T_1 are given by V_0/P_0 and V_1/P_1 . The percentage change in the physical volume of consumption R_{01} in the period T_1 as compared to the period T_0 is given by:

$$R_{01} = V_1 P_0 / V_0 P_1 \times 100.$$

The family budget reports of September, 1940, and June, 1943, give the volumes of expenditures V_0 and V_1 in the two periods. The price indices P_0 and P_1 are obtained from the cost-of-living index number C_1 . The Report of 1940 does not mention at what date the enquiry was undertaken, or, at what prices the expenditures of the working-class families were calculated. Nor does it give any information about the quantities of the articles purchased. It is reasonable to assume, however, that the average price of the quarter of the year which preceded the publication of the report, determined the consumption-pattern and, therefore, the volume of expenditures given in the Report. Thus we may choose the median prices of April-June of 1940, as the standard price P_0 which determined the volume of expenditure V_0 shown in the Report. Similarly the standard price P_1 —the median price of October-November of 1942—may be assumed to be the determinant of the volume of expenditures V_1 of this period.

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TABLE I

Percentage change in the Physical Volume of Consumption in 1942
(R_{01}) with 1940 as base

<i>Item</i> (1)				P_0 (2)	V_0 (Rs.) (3)	P_1 (4)	V_1 (Rs.) (5)	R_{01} (6)
1.	Rice	..	..	111	11.28	208	2.84	1345
2.	Condiments	..	..	105	1.86	212	4.85	129
3.	Pulses	..	..	128	0.30	250	1.80	307
4.	Onions	..	..	96	0.49	191	0.92	94
5.	Potatoes	..	..	118	0.21	197	5.50	1569
6.	Vegetables	..	..	113	1.66	195	9.73	340
7.	Fish	..	..	97	4.35	227	6.48	64
8.	Meat	..	..	116	1.09	142	1.20	95
9.	Eggs	..	..	91	0.12	218	0.00	0
10.	Tea	..	..	131	0.46	311	2.40	220
11.	Sugar	..	..	127	1.06	220	2.20	120
12.	Milk	..	..	98	1.26	117	1.72	114
13.	Coconut	..	..	107	1.30	200	4.20	173
14.	Coconut Oil	..	..	105	0.45	213	0.72	79
15.	Bread	..	..	103	0.52	142	11.00	1536
16.	Flour	..	..	92	0.01	166	10.27	56918
17.	Fruits	..	..	104	0.17	133	0.00	0
18.	Jam and Butter	..	..	103	0.04	181	0.00	0
19.	Kerosene Oil	..	..	107	1.47	181	1.79	104
20.	Firewood	..	..	99	1.69	305	5.40	104
21.	Matches	..	..	100	0.15	150	0.21	93
22.	Tobacco	..	..	100	1.74	150	2.61	100
23.	Betel	..	..	122	0.81	180	2.27	190
24.	Soap	..	..	107	0.43	125	0.54	107
25.	Liquor	..	..	103	0.76	120	0.92	104
26.	Dhoby	..	..	100	1.48	120	1.78	100
27.	Barber	..	..	100	0.68	144	0.98	100
28.	Transport	..	..	113	0.96	119	1.14	113
29.	Medicine	..	..	112	0.36	198	0.73	115
30.	Utensils	..	..	143	0.15	193	0.29	143
31.	Education	..	..	142	0.66	295	1.95	142
32.	Clothing	..	..	126	4.41	224	0.95	114
33.	Rent	..	..	97	8.42	90	7.20	92

The various items shown in the consumption pattern of the two periods may be classified into four groups according to the change produced in the physical volume of consumption. In the first group are those articles which have disappeared from consumption ; in the second are those which have decreased in consumption ; the third group consists of the articles which have not changed in volume of consumption, and the fourth group is made up of those articles which have increased in consumption. Column (3) of Table 2 shows the percentage increase or decrease in price. It will be noticed that except in the case of rent, in every other case the prices have increased. How far are these consumption changes justifiable ? Decrease in the consumption of Groups I and II may be explained by rise in price and scarcity in supply. Failure of the articles of Group III to decrease, and the increase of Group IV, in spite of a rise in prices may be explained, first, by a rise in real income of the working-class ; and second, by the principle of substitution. A third explanation of change in taste is ruled out because of the shortness of the interval.

Income and Consumption

Unfortunately, we do not have any wage-index or pay-roll index in Ceylon, which would give us an indication of the change in the income of the working-class families. If we are to study the effects of income-change on consumption we must make an " intelligent " guess about the probable change in the worker's income. It is possible to make such a guess if we assume that the wage increase has been in the same proportion as the increase in the national income in the period under review. It is necessary to point out that such an assumption is not strictly true and is made merely to obtain the roughest idea about the change in wage rate. The constituent elements of the national income, namely, profits, wages, salaries, interest, rent, etc., do not all rise or fall at the same time or to the same extent. In times of prosperity and of depression wages lag behind profits, while the other elements lag behind wages. This lag is greater in the earlier phases of prosperity and depression. The year 1939 may be regarded as the starting point of a prosperity cycle in Ceylon. It is reasonable to believe that whatever increment-rate the national income showed in this phase was largely due to rise in the rate of profits and other variable income rates. By 1942, the wage-rate increment must have contributed to some extent to the increment of the national income ; but even then it must have lagged behind profit-rate, since the year was still in the earlier phase of the prosperity cycle. To the extent that the wage-rates lagged behind profits rate and national income increment, the true rise in the wage rate would be less than the rise in the profits rate and the rate of increment

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TABLE II

Percentage Change in Price and Volume of Consumption in 1942
with base in 1940

Group	Item	Percentage increase (+), or, decrease (-) in price	Percentage increase (+), or, decrease (-) in volume of consumption	Percentage increase (+), or, decrease (-), in volume of Imports in 1942 with base in 1940
(1)	(2)	(3)	(4)	(5)
I.	1. Eggs ..	.. + 140	- 100	—
	2. Fruits ..	.. + 28	- 100	—
	3. Jam and Butter ..	.. + 76	- 100	—
II.	4. Rice ..	.. + 87	- 87	—
	5. Onions ..	.. + 98	- 6	- 3.5
	6. Fish ..	.. + 134	- 36	—
	7. Meat ..	.. + 22	- 5	—
	8. Coconut Oil ..	.. + 103	- 21	—
	9. Matches ..	.. + 50	- 7	—
	10. Rent ..	.. - 7	- 8	—
	11. Cereals (as a group) ..	.. + 48	- 19	- 40.5
III.	12. Tobacco ..	.. + 50	0	—
	13. Dhoby ..	.. + 20	0	—
	14. Barber ..	.. + 44	0	—
IV.	15. Condiments ..	.. + 102	+ 29	- 4.5
	16. Pulses ..	.. + 95	+ 207	- 45.2
	17. Potatoes ..	.. + 67	+ 1469	- 5.5
	18. Vegetables ..	.. + 73	+ 240	+ 115.0
	19. Tea ..	.. + 137	+ 120	—
	20. Sugar ..	.. + 73	+ 20	+ 3.0
	21. Milk ..	.. + 19	+ 14	—
	22. Coconut ..	.. + 87	+ 73	—
	23. Bread ..	.. + 37	+ 1435	—
	24. Flour ..	.. + 80	+ 55918	—
	25. Kerosene Oil ..	.. + 13	+ 4	+ 27.0
	26. Firewood ..	.. + 208	+ 4	—
	27. Betel ..	.. + 48	+ 90	—
	28. Soap ..	.. + 17	+ 4	—
	29. Liquor ..	.. + 17	+ 4	—
	30. Transport ..	.. + 5	+ 13	—
	31. Utensils ..	.. + 38	+ 43	—
	32. Medicines ..	.. + 77	+ 15	—
	33. Education ..	.. + 108	+ 42	—
	34. Clothing ..	.. + 8	+ 14	—

of the national income.² Thus our assumption of proportionate increases in the national income rate and the wage-rate gives us an overestimate of the rise in the wage-rate, and the true wage-rate increase would be less than what we assume here.

For measuring the change in the national income, we shall use Dr. Das Gupta's national income estimates (published in the *Social Service Commission Report*), in the absence of any other more comprehensive and accurate data. We shall have to introduce two corrections, however, before we can use these estimates for our purpose.

(a) Correction for factor cost: We need, for our purpose, a measure of the change in the *real income* and not money income which we shall regard to be the same as the real income-change of the working-class. Real income is obtained by deflating money income estimates by a suitable price

2. That the assumption of constant ratio between the percentage rates of increment of the national income and the wage-rate gives an over-estimate of the wage-rate increase, in the rising phase of the national income, can be proved as follows:

Let the national income Y be made of two components Y_1 and Y_2 ; Y_1 representing the component which rises first and shows a lead, e.g., profits; and Y_2 the component which shows a lag, e.g., wages, salaries, etc. Then, $Y = Y_1 + Y_2$.

Let $Y = f(t)$, where t is time. Then the proportional rates of increment of Y , Y_1 and Y_2 are $\frac{1}{Y} \frac{dY}{dt}$, $\frac{1}{Y_1} \frac{dY_1}{dt}$, and $\frac{1}{Y_2} \frac{dY_2}{dt}$ respectively.

Since,

$$Y = Y_1 + Y_2 \dots\dots\dots (1)$$

$$\text{We have, } \frac{dY}{dt} = \frac{dY_1}{dt} + \frac{dY_2}{dt}$$

$$\frac{1}{Y} \frac{dY}{dt} = \frac{\frac{Y_1}{Y_2} \left(\frac{1}{Y_1} \frac{dY_1}{dt} \right) + \frac{1}{Y_2} \frac{dY_2}{dt}}{\frac{Y_1}{Y_2} + 1} \dots\dots\dots (2)$$

$$\text{Now if } \frac{1}{Y_1} \frac{dY_1}{dt} > \frac{1}{Y_2} \frac{dY_2}{dt},$$

$$\text{We have from (2) } \frac{1}{Y} \frac{dY}{dt} > \frac{\frac{Y_1}{Y_2} \left(\frac{1}{Y_2} \frac{dY_2}{dt} \right) + \frac{1}{Y_2} \frac{dY_2}{dt}}{\frac{Y_1}{Y_2} + 1}$$

$$= \frac{\frac{1}{Y_2} \cdot \frac{dY_2}{dt} \left(\frac{Y_1}{Y_2} + 1 \right)}{\frac{Y_1}{Y_2} + 1}$$

$$\therefore \frac{1}{Y} \frac{dY}{dt} > \frac{1}{Y_2} \frac{dY_2}{dt}$$

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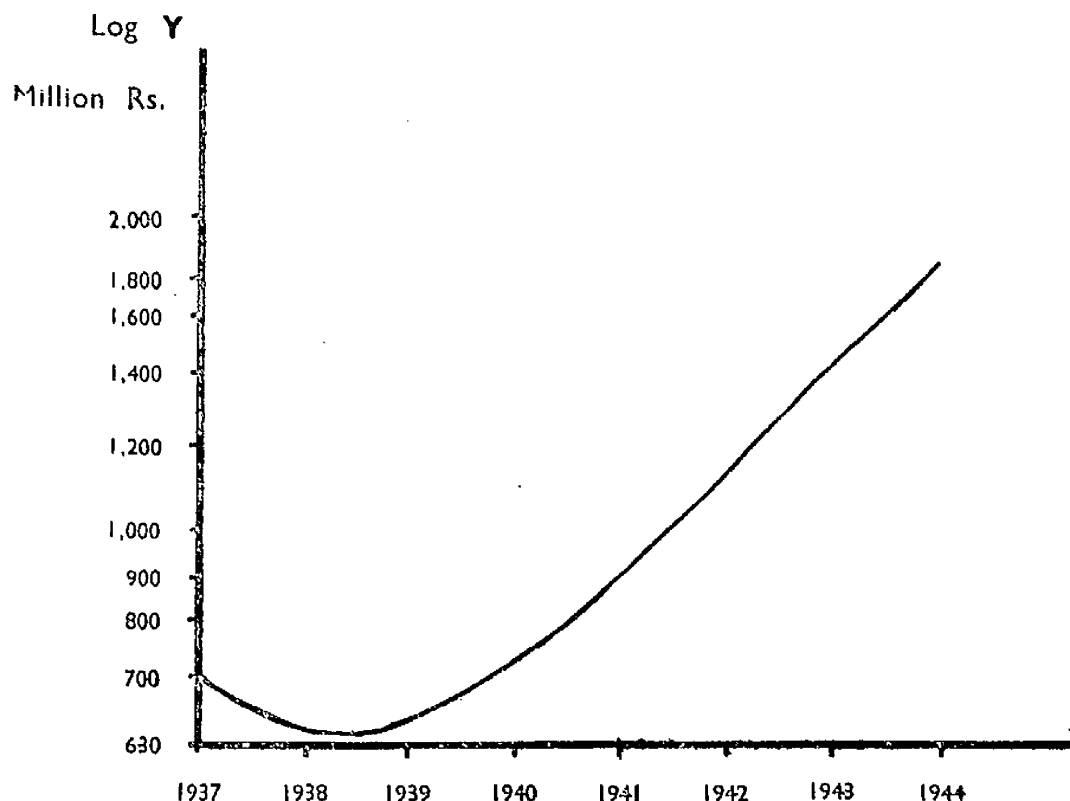


Diagram 1. Nominal National Income at current prices (in semi-logarithmic scale)

index. Dr. Das Gupta's estimates give national incomes at factor cost. But if we are to deflate the money income by a price index, we must obtain the estimates at "current prices". National income estimates at factor cost do not include the effects produced by indirect taxation and subsidies, while the available price indices include such effects. Hence if we are to use any of the available index number of prices, we must not make any correction in the national income estimates for indirect taxes and subsidies. Thus, merely by re-adding the indirect taxation figures to Dr. Das Gupta's estimates, we can obtain national income figures at "current prices".

(b) Correction for price-changes: Money income estimates when corrected for price changes, will give us real income estimates. This is done by dividing the money income of a period, by a suitable index number of that period. There are only three index numbers available in Ceylon at present, namely, (i) the export price index number; (ii) the import price index number; and (iii) the cost of living index number. These indices constructed by the Statistics Department, give us the respective prices from 1939 onwards. In the absence of any index number of the general purchasing power of money, which is the most suitable index for deflating national income estimates, we must use any of these three indices. Which of these three indices will give us the most satisfactory result?

TABLE III—Per Capita Money Income

Year (1)	National Income		Population (in million) (4)	Per capita Income	
	At factor-cost (in million Rs.) (2)	At current prices (in million Rs.) (3)		At factor-cost (Rs.) (5)	At current prices (Rs.) (6)
1937	620.606	694.606	5.780	106	120
1938	583.502	654.165	5.864	96	112
1939	633.232*	684.349*	5.922	107	116
1940	732.265*	781.497*	5.981	122	131
1941	890.492*	946.413*	6.061	147	156
1942	1091.265	1173.085	6.083	179	193
1943	1422.137	1520.085	6.197	229	245
1944	1701.432	1826.992	6.384	267	286

* Interpolated values.

(i) The export price index can make a claim for the purpose on the ground that the major part of our national income is obtained from exports. If we assume that the export prices of the commodities, the major part of which is exported (cf. coconut) determine their domestic prices also, then the export prices would get a weightage of 50 per cent. in 1938 and 48 per cent. in 1942, which were the proportions in which export industries contributed to the total national output during those years. Thus the export price index would correctly deflate about half of the national income and for the other half it would be inappropriate.

(ii) From the point of view of consumption the import price index can make a better claim as a deflator of national income than the export price index. If we regard real per capita income as the amount of goods and services that an individual consumes and saves then the import price index would be a suitable deflator, only so far as imported goods are consumed. In Ceylon we spend most of our income on foreign goods but the exact proportion of this expenditure is not known. To the extent that we buy domestic services and domestic goods, import price index would be unsuitable as a deflator of national income.

(iii) For our purpose however, the cost-of-living index would be the most appropriate index to use. For, what we are concerned here is not money national income but money wage. We have assumed the *rate* of per capita income increment to be valid for wage-rate increment also. Thus by attributing to wages a rate of increment that we notice in the case of national income, we have obtained an upper limit of wage increase in this period. What would be the real worth of the worker's wage level thus obtained? Evidently the best answer would be to deflate the money wage index by the cost-of-living index, the money wage index being assumed to be the same as the national per capita income index.³

3. In so far as the Cost-of-Living Index is an under-estimation, the real-wage obtained by deflating money national income by Cost-of-Living Index would be over-estimated.

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Dr. Das Gupta has not given the figures of national income for the years 1939, 1940 and 1941, which we have interpolated by fitting a second degree polynomial to the estimates of other years. For the factor cost estimates the polynomial—

$$Y = 732.265 + 128.630 X + 29.597 X^2$$

with origin at 1st July, 1940 and units measured in millions, gives a satisfactory fit. For the current price estimates, the polynomial:

$$Y = 855.484 + 82.458 X + 8.471 X^2$$

with origin at 31st December, 1940, and units in millions seems to be suitable. In both cases the fit is satisfactory.

Money Income

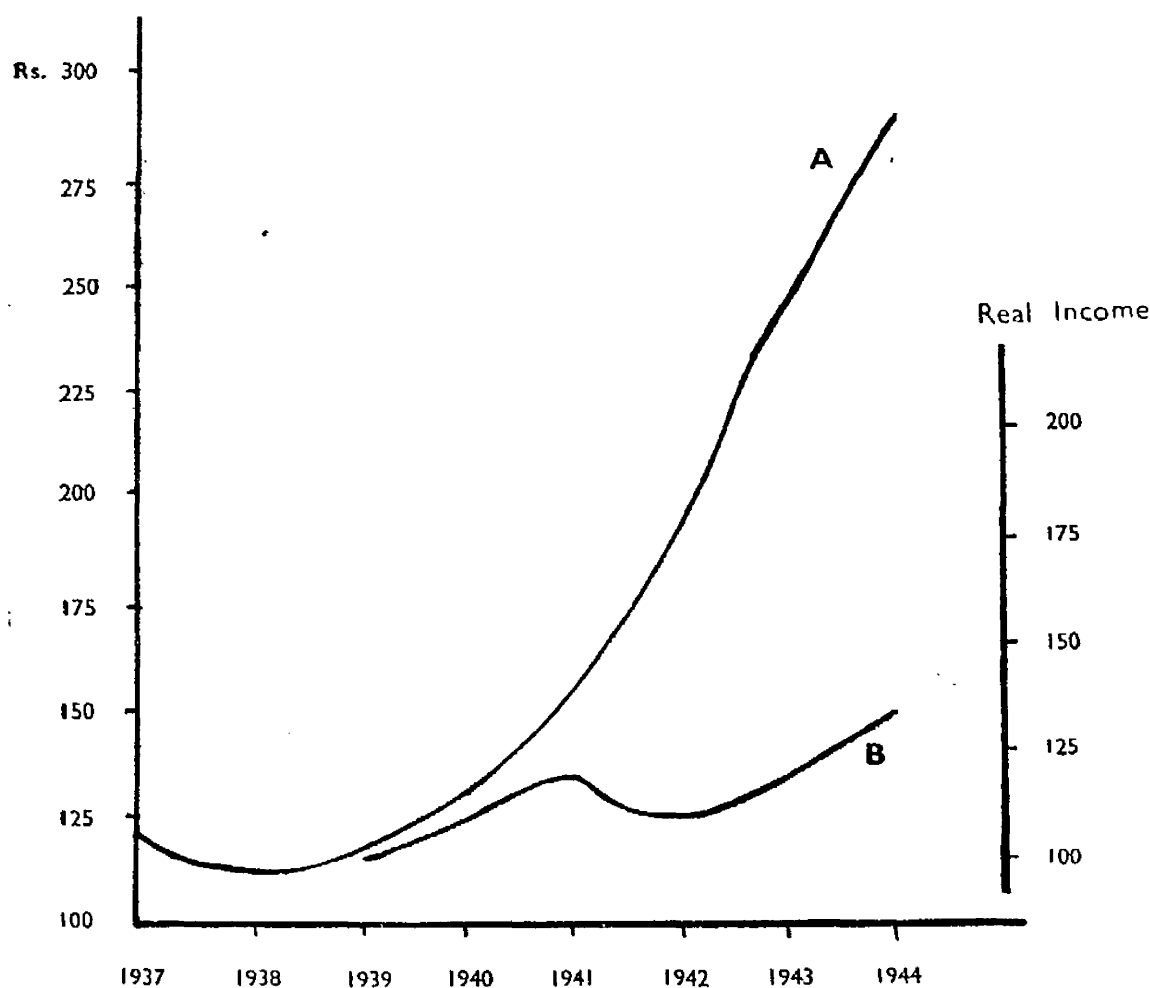


Diagram 2. A = Per-capita money income (at current prices)
B = Per-capita real income index with base at 1939 (cost-of-living index deflated)

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The real wage index (Table 4) at factor cost show a rise from 109.94 in 1940 to 110.16 in 1942—a rise of 0.2 per cent only.

At current prices the increase is from 109.02 in 1940 to 109.89 in 1942—a rise of 0.798 per cent. (See Table 5). In both cases the rise in real income must be regarded as insignificant.

TABLE IV Real Income at Factor-Cost

Year	Per-capita Income of Factor- cost	Price-Index			Real income at factor-cost					
		Export- prices	Import- prices	Cost-of- living	Deflated by			Percentage change with base : at 1939		
					Export- price Index	Import- price Index	Cost-of- living Index	Export- price deflated	Import- price deflated	Cost-of- living Index deflated
(I)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1937	106	—	—	—	—	—	—	—	—	—
1938	96	—	—	—	—	—	—	—	—	—
1939	107	141	102	108	0.7588	1.0490	0.9907	100.00	100.00	100.00
1940	122	147	124	112	0.8299	0.9838	1.0892	109.37	93.78	109.94
1941	147	163	151	122	0.9018	0.9735	1.2049	118.84	92.80	121.62
1942	179	188	239	164	0.9521	0.7489	1.0914	125.47	72.39	110.16
1943	229	202	308	195	1.1336	0.7435	1.1743	149.39	70.87	118.53
1944	267	232	399	200	1.1508	0.6691	1.3350	151.66	63.78	133.94

TABLE V Real Income at Current Prices

Year	Per-capita income at current- prices (Rs.)	Real income at current prices					
		Deflated by			Percentage change with base at 1939		
		Export-price Index	Import-price Index	Cost-of-living Index	Export-price Deflated	Import-price Deflated	Cost-of-living Deflated
(I)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1937	120	—	—	—	—	—	—
1938	112	—	—	—	—	—	—
1939	116	0.8195	1.1329	1.0700	100.00	100.00	100.00
1940	131	0.8889	1.0537	1.1667	108.45	93.01	109.02
1941	156	0.9579	1.0341	1.2799	116.88	91.27	119.61
1942	193	1.0257	0.8069	1.1759	125.16	71.22	109.89
1943	245	1.2143	0.7963	1.2578	148.17	70.28	117.55
1944	286	1.2335	0.7172	1.4304	150.52	63.31	133.72

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Thus the explanation that the increase in the quantity of consumption due to increase in real income is untenable.

Even if we assume that the real wages had increased in this period, how could we explain the fall of consumption in Groups I and II and the failure of Group III to increase? Except rice the other articles were not rationed and there is no reason why they should not be increased in consumption, or at least, retained in their former position.

If we rule out change in taste and temperament, and a rise in real income, then the only explanation that remain to be disposed of is the substitution of relatively cheaper goods for costlier ones. In our example, Group IV has increased in consumption and Groups I and II have decreased, because, it may be asserted, the latter have been substituted by the former. But the assumption behind such substitution must be that Group IV was relatively cheaper than Groups I and II, or, that the rise in price of Groups I and II was greater than in Group IV. The relative prices in both these cases rose about the same amount, namely 66 per cent. in Groups I, II and III and 65 per cent. in Group IV. Thus the substitution cannot be explained by change in relative prices.

It may be argued that the institution of price control did not allow the supply factors to exert their influence on prices and, therefore, relative prices cannot be taken to indicate the relative substitution. Unfortunately we do not have any statistics of supply of commodities except those which are wholly imported. Column (5) in Table 2, show the percentage of quantities of imports of such articles in 1942 as compared to the imports in 1940. A closer study of this column shows that of the imported articles whose statistics are available, the change in the consumption of cereals, onions and vegetables are consistent with rise in price and decrease or increase in supply. In case of sugar and kerosene oil though there was a rise in supply, yet a rise in consumption was not warranted because these articles were rationed and only a part of the entire supply was made available for immediate consumption. In case of other commodities, an increase in consumption is shown, inspite of rise in prices, decrease in supply and non-increase in real income. Moreover the 1942 consumption pattern shows an increase in the consumption of rationed articles except rice, such as sugar, kerosene oil and cloth, which clearly demonstrate its arbitrary character. Thus the tenuous basis of the consumption pattern drawn up in 1942 for the construction of C₂ is evident and can be justified only when it is hedged with numerous assumptions of doubtful validity. This arbitrary character of the consumption pattern of C₂ is one of the major contributing factors responsible for making it unrelated to actual conditions.

Collection of Prices

What makes the index C₂ more unreal is the errors of price collection. The success of an index number depends not only on the methods of averaging

and weighting, but also—and more so—on the correctness of the prices collected for the purpose. If the price quotations are incorrect no statistical refinement can improve the efficiency of the index and it will inevitably fail to reflect correctly the variations in the cost of living. The investigators of the Statistics Department collect prices from approved shops and in cases of doubt are expected to make “test purchases” to verify the information given by the retailers. The method is efficient provided the officers take great care to get the correct prices after proper investigation. With the institution of price control and the appearance of the black market, the collection of the exact prices at which the working classes made their purchases became more difficult. The question arose whether the black market price should be taken cognisance of in constructing the index and if so what weights should be given to the black market price and what to the legal price. From the theoretical point of view the index should be based on the prices actually paid by the workers, whether the prices paid are legal or not. Otherwise the index will fail to measure what it purports to measure and will become unreal and fictitious. The collection of actual prices paid by the workers, however, is not easy and presents grave administrative difficulties. For, information is needed not only about the prices but also about the quantities of the articles purchased, so that the index may be based on the weighted average of the black market and the legal market prices, the weighting being done by the quantities purchased from each of these markets. Evidently information of this nature can be obtained only if a direct and intimate contact is established with a sample of representative working class families. It ought not to be impossible to select such a representative sample as it is done now in case of rent. The workers so chosen may be given the necessary instructions to report the quantities and the prices of their weekly purchases correctly. The Statistics Department did not make any such attempt to solve the problem presented by the appearance of the black market prices, but avoided the issue by ignoring the black market altogether and basing the index on the legal prices alone even when no commodities were available in the legal market. In consequence the index lost all semblance of reality and to the extent the actual prices diverged from the controlled prices the errors of the index increased. In fairness to the Statistics Department it must be mentioned that even if the Department made any such attempt to obtain the real prices, it is doubtful how far it would have succeeded in view of the inadequacy of its equipment and staff. Statistics has never been the strong point of our administration and, till recently, the existence of the Department was regarded as more ornamental than useful.

The method of obtaining information regarding prices and quantities directly from the consumers has its usefulness even when price control is absent. It can be used as a check on the price-quotations supplied by the

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retailers. Secondly, any change in the consumption pattern can easily be detected and the index amended whenever the consumption pattern undergoes radical changes. It can be used to check the system of weighting also. If the costs permit, such a method will improve our cost-of-living index considerably.

In any case, sample surveys of retail prices from alternative sources should be organised from time to time to test the reliability of the approved retailers who supply price data and the efficiency of the price collectors.

Relationship of C1 and C2

It is worth while to point out an error, repeated every month since the revision of the old index. The Report of 1943 says, "In order to ascertain the change in the cost-of-living in the original basic period (November, 1938 to April, 1939), the new index number is multiplied by 1.83". Evidently by multiplying the total by 1.83 we will not get the same result as reconstructing the index with new weights for each constituent element. In order to compare the cost-of-living of pre-1942 period, it is necessary to reconstruct the index either with 1942 weights, or, with 1939 weight, or, to extend both C1 and C2 to the other period.

Economic Consequences of the Errors in the Index

In order to examine the economic consequences of these errors, it is necessary to find out first of all whether these errors have resulted in an over-estimation or an under-estimation of the true cost-of-living.

A. Errors of weighting :

- (a) The weight of cereals in C2 has been reduced. To the extent that the cereal prices were kept low by heavy subsidy, the lowering of weights gave us an over-estimation of the cost-of-living. If the former weights of cereals (as a group) had been retained we would have obtained a lower figure.
- (b) The prices of the most of the other items including the items in the food group, have risen higher than the cereal prices. Their weights also have been increased in the revised index. This must have resulted in an over-estimation of the true cost-of-living.

B. Errors of price quotations : On the other hand so far as the black market prices were ignored and the index was based on the controlled prices only, the index must have resulted in an under-estimation of the true cost-of-living. What the net effect of these two opposite factors has been, cannot be estimated. For, the error due to price quotation depended on the divergence between the control-prices and the black market prices and the quantities purchased from each market. So far as the actual prices diverged from the controlled prices, the index showed an under-estimation of the true cost-of-living.

In order to trace the effects of the index on the economic situation in the country, let us assume that the black market prices and purchases diverged from the legal market prices and purchases to a significant degree, so that the index number gave us an under-estimation. This assumption may be regarded as valid during the war period, when price control was severest and black market thrived most. So far as the cost-of-living index determined partially the money earnings of the workers and the employers, this under-estimation must have resulted in a lower wage than what it would have been, had the black market prices been taken cognisance of. Indirectly this fact along with the rise in prices and inflation must have resulted in transference of wealth from the wage-earner to the profit-earner. And, so far as 85 per cent of the profit earners are foreigners, this under-estimation has benefited them at the cost of the Ceylonese.

A second adverse effect may be traced to the commercial-deals that we had during those days with our foreign buyers. In settling the prices of our products the cost factors—of which the index was one—were taken into consideration. The lower cost-of-living figures, therefore, must have resulted in a lower price for our exports than what we would have obtained had the index figures been higher. The foreign buyers, thus benefited by these errors at our expense, which caused a reduction in our national income.

The beneficial effect of such under-estimation on the economic situation must not be lost sight of in assessing the effects of the index. So far as it kept the purchasing power of the masses at a lower level, it must have contributed to some extent towards counteracting the inflationary pressure during the war.

The conclusions arrived above are valid—it must be remembered—under the strict assumption that the actual prices and quantities purchased by the workers diverged substantially from the controlled prices used in the construction of the index. If we assume, on the contrary, that the actual prices and the index number prices were identical, then the contrary effects could be traced down to the index, *viz.*, that the index benefited the workers and employees at the cost of the profit-earners, and the Ceylonese at the cost of the foreigners. These results would follow because of the weights adopted in the second series as contrasted with the first which gave the former an upward bias compared to the latter.

Working-Class Cost-of-Living Index and Middle-Class Employee's Cost-of-Living

In case of the middle-classes, it can be asserted without reservation, that the index C2 gives a serious under-estimation of their cost-of-living. For, the clothing and the miscellaneous groups in C2 show a much greater rise in prices relative to the food group as shown in Table 6 and Diagram 3. For middle-classes the weight of the former two groups are always higher than

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their weights in case of working-class indices. Thus the higher prices having a higher weight and the lower prices a lower weight, the middle-class cost-of-living must have increased much more than the working-class cost-of-living. C2 therefore gives an under-estimation of the rise in the middle-class cost-of-living.

From the theoretical point of view the middle-class cost-of-living cannot be measured by the cost-of-living index of the working-classes. To obtain a correct estimation of the change in the cost-of-living, it is necessary to

TABLE VI

**Percentage Variation of Clothing and Miscellaneous Groups' Prices
Relative to Food Prices**

<i>Year</i>	<i>Food</i>	<i>Clothing</i>	<i>Miscellaneous Group</i>
(1)	(2)	(3)	(4)
1943	100	134	115
1944	100	153	125
1945	100	150	142
1946	100	159	137
1947	100	166	123

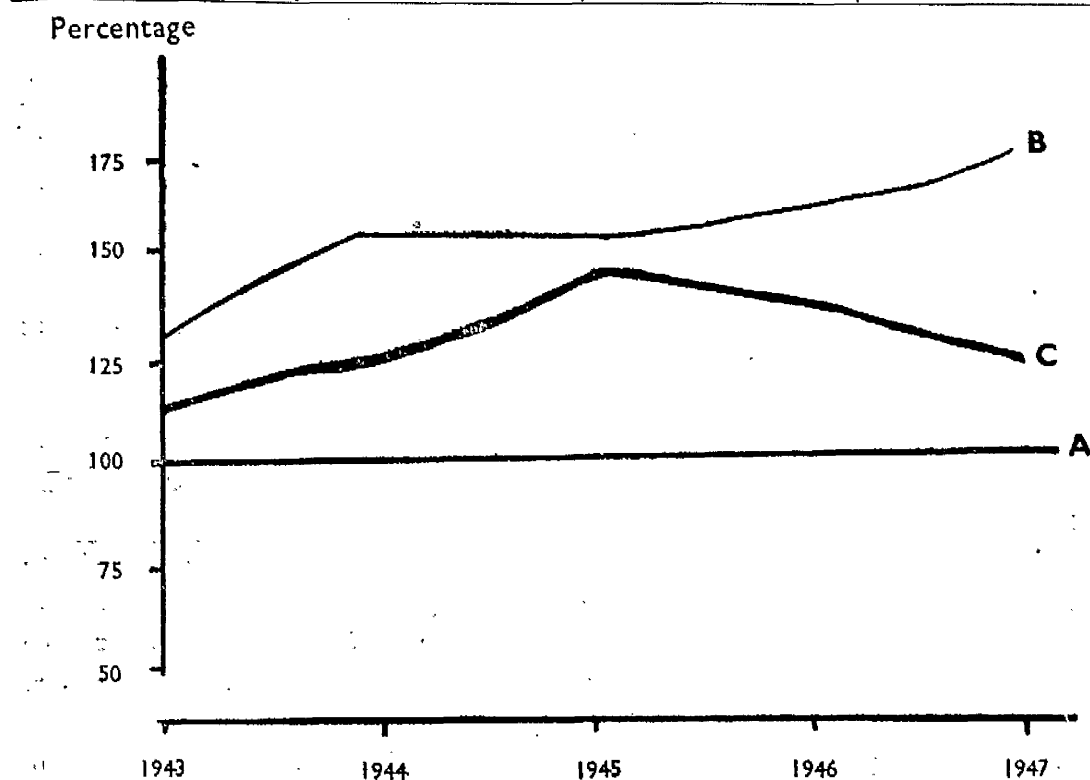


Diagram 3. A = Food-prices
B = Cloth-prices as percentage of food-prices
C = Miscellaneous prices as percentage of food-prices

construct a separate index for each separate group of people. In view of the cost involved, however, few countries ever attempt to achieve such an ideal state of statistics.

Summary of Conclusions

I. *Family Budget Survey :*

- (a) The sample selected for the survey in 1939-40 was rather small. In the next survey, which should be undertaken as soon as prices become more established, efforts should be made to collect family budgets from a larger sample, say, of one thousand families.
- (b) Stratified sub-samples of different areas and industries should be taken, the size of each sub-sample being approximately in proportion to the population in that area or industry from which it is selected. A separate sub-sample may be collected for unorganised industries.
- (c) The frequency distribution of the income-classes and the percentage distribution of expenditure according to income-groups should be given.
- (d) A separate survey of middle-class families may be undertaken.

II. *Selection of Articles :*

A broader selection of articles for inclusion in the index should be attempted. The quantity of each of the articles selected and the units of price quotations should be carefully defined.

III. *Price Collection :*

A system of counter-checks on the reported prices should be developed. This may consist of sample price collection from time to time from alternative sources and direct price reporting by the consumers.

IV. *Publication of the Price Relatives :*

The old system of publishing the individual price relatives suspended during the war years, should be restarted. This will remove, to a large extent, the paucity of the retail price statistics and will at the same time increase public confidence on the index by removing its mysterious character.

V. *Wage and Employment Indices :*

It is necessary to construct a wage index and an employment index, without which real-wage determination becomes difficult and the cost-of-living index loses much of its significance and usefulness.⁴

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4. A popular criticism against the index frequently heard is that it has been consciously manipulated to give an under-estimation of the cost-of-living, in order to reduce the Government's expenditure on war allowances. The validity of such a criticism can be verified only by an officially appointed enquiry committee with the necessary statutory powers. Such an enquiry is beyond the scope of this article which is limited to the theoretical aspects of the index alone. It is difficult to understand, however, why such manipulation should be resorted to, when the necessary saving could be effected by altering the sliding scale of the war allowances.

A CRITICISM

The reader after going through the elaborate analysis made by Mr. Sarkar may wonder what it is all about. As far as I can see the purpose of this laborious research is to prove that the 1942 budget cannot be truly representative of the consumption pattern of the working classes in 1942. In order to do this he first sets out to prove that there has been no appreciable increase in the real national income. He makes use of Dr. Das Gupta's estimate published in the *Social Services Commission Report* which in the first place is incorrect—Dr. Das Gupta himself has corrected this in his book on the *The Ceylon Economy*. He then proceeds to interpolate for the year 1940 using a second degree polynomial; he does not say how many observations he used but apparently they could not have been more than 4 or 5. But still he claims that it gives a satisfactory fit. He then proceeds to deflate this by means of the Cost-of-Living Index number, which by the way is the index which is being criticised in the article. Having done all this he comes to the conclusion that there has been no change in the real National Income and consequently that there could have been no increase in consumption. He gives in group 4 of table 2, a list of items which show an increase in consumption. The principal items are bread, flour, potatoes, vegetables and pulses. There is nothing inconsistent in the increases of these items because—

- (a) bread and flour replaced rice between these years;
- (b) there was a very large production of yams during these years—an item which replaced potatoes. By potatoes Mr. Sarkar really means yams;
- (c) there was a very large increase in the production of vegetables;
- (d) as it is becoming more and more apparent the working classes have been definitely increasing their consumption of a number of items in the food budget.

2. However, I would have been myself extremely surprised if this 1942 budget did really turn out to be an exact representation of the pattern of consumption in 1942. This budget was not worked out on the basis of a family budget inquiry. It was merely an estimate made by a Special Committee as to what was likely to have been the pattern of consumption in 1942. It will be apparent to the reader that it would be absurd to make a statistical analysis to prove that such an artificial budget was not truly representative of the actual pattern of consumption. The reasons for appointing such a Committee to make the changes were as follows:—

It was well known that in 1942 rice practically went out of the market and was replaced by flour and bread. In the 1938-39 budget the largest weight was assigned to rice, which was the principal article of consumption of the working class. The price of rice was controlled at a subsidised level right throughout this period up to 1948. If while the consumption of rice had

decreased so much and the price of rice was controlled at a subsidised level, the cost-of-living index was continued to be computed on the same pre-war basis it would have obviously resulted in the cost-of-living Index remaining almost stationary, while the real cost-of-living was going up. To a large extent this is what happened in the United Kingdom where the basic budget of 1914 was never revised until 1947. The Government did not want this to happen in Ceylon, but it was not possible to conduct a full family budget inquiry in the unsettled conditions in 1942. Therefore the Government wanted only some fundamental changes in the Cereal group and in a few of the other important items to be made by the Special Committee. It would seem even from the analysis made by Mr. Sarkar that the committee had guessed at the real pattern of consumption very accurately. It would be quite unreasonable to expect the committee to have been 100% accurate in its guess. This is what Mr. Sarkar apparently expects it to have done.

3. Referring to the method adopted to link the new index to the old, Mr. Sarkar categorically states that it is an error. The cost-of-living index number is compiled to measure the change in the cost of maintaining a fixed standard of living at the basic period. But when the standard itself changes sharply as in times of war the formula becomes inapplicable and the statistician is faced with the problem of what to do. Is one to take the present pattern of consumption as basis or the basic pattern? They obviously give a different results. Or is one to use a complex mathematical formula whose meaning cannot be explained objectively? This is the problem which has been engaging the attention of international statisticians, for quite some time. As no practicable solution has been found yet one should not categorically state that any particular formula is wrong. It is not possible to say so because one is not sure of what one is trying to measure under the circumstances. But Mr. Sarkar is categorical even about a matter like this.

4. At the beginning of the article Mr. Sarkar says that 0.8% of the population is too small a sample to compile an adequate index of cost-of-living. Towards the end of the article he suggests that in order to obtain a more reliable index a monthly family budget survey should be carried out by the Statistics Department, of a selected number of families. I am not sure whether Mr. Sarkar is really serious about this suggestion and whether he appreciates the volume of work involved. If the monthly survey is to be confined only to a few families what is the purpose of taking a full family budget inquiry consisting of a large percentage of the population. In the very next month when the weights are revised using the weights given by the few selected families all the work done on the comprehensive family budget survey is thrown over board.

5. I am sorry I have had to be so critical about the article, but I considered it my duty to do so in order that the layman may not get an impression

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that the Government had done something quite incorrect in revising the basic family budget in 1942. An article like this from the hands of an important member of the Economics Department of the University is likely to be accepted by the layman at its face value unless the opposite point of view is also put to him.

K. WILLIAMS

Reviews

Outlines of Muhammadan Law. By Asaf A. A. Fyzee. Oxford University Press, 1949. Rs. 16.00.

The expression "Muhammadan Law" is used by the author to mean "that portion of the Muslim Civil Law which is applied in India to Muslims as a personal law". The apparent inconsistency between the title and the body of the work is thus explained.

The book will serve as an excellent introduction to the study of Muhammadan Law. There is much that will interest the general reader in the Introduction to the book, as it describes in outline the historical background of Muslim Law, the principles of Muslim jurisprudence and the development of the law. To the student of law this knowledge is indispensable when it is remembered that Islamic Law became more or less stabilised after a period of rapid development, and that it has spread far beyond the country and race of its origin.

The author is specially qualified for this work, a difficult undertaking, because the principles of Islamic jurisprudence differ in several respects from those of Western jurisprudence, and because Islamic Law and jurisprudence are, in the words of Syad Ameer Ali, "for the most part wrapped in the folds of a language as difficult to acquire as it is copious in its diction. The departure in some cases from the old nomenclature is to be welcomed, such as the dropping of the term "sect" in relation to the schools of Islamic Law, and of the term "sharers" in favour of "Koranic heirs" in the law of inheritance. The style and diction of the book, rarely met with in works of this nature, and the lucid exposition of the law make the book pleasant reading and its attractive get up enhances the pleasure. It might not be amiss to refer to one or two passages in the Introduction, which would appear to be rather obscure; e.g. "It (i.e. Muhammadan Law) consists in the main of the express injunctions of the Koran; of the legislation introduced by the 'practice' (sunna) of the Prophet; and of the opinions of lawyers. In certain cases the opinion of jurists may coincide on a point, and this is known as *ijmā* or consensus; in others, it may not—this is called *qiyas* or analogical deduction" (page 1); and, "In fact, it is only due to political and other causes that they (Muslims) still consider themselves bound by older views, while the letter of the law allows liberty to develop their system of jurisprudence" (p. 26). What is the special significance of the phrase "letter of the law". And would it be quite accurate to state without qualification that "Gift is a wide term applicable to all transfers without consideration" (p. 197) ?

A glance at the contents of the book will show the limited extent of the application of Muhammadan Law—Intestate Succession and wills, marriage and divorce, legitimacy and guardianship, wakfs, gifts and pre-emption cover the field. Muslim Law is administered in Ceylon in much the same way as in India, though its application here is even more limited. To the Ceylon student, a study of the Introduction and the principles underlying the rules of law should be of great use.

B. C. A

Abhidhamma Studies—Researches in Buddhist Psychology. By Bhikkhū Nyanaponika. An Island Hermitage Publication, printed by Frewin & Co., Ltd., Colombo. Price Rs. 3.00.

This is an attempt to give a consistent interpretation to the semi-ethical psychological material embodied in those portions of Pali literature that are collectively called the Abhidhamma. The Abhidhamma is not philosophy in the ordinary sense of the word,

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and it is for this reason, perhaps, that the author decides to call it descriptive philosophy as opposed to speculative philosophy. The term "descriptive philosophy" is, however, vague, and is sometimes used to mean the positive sciences as opposed to "moral philosophy". In fact, the Abhidhamma is neither metaphysics, in the sense in which that word is understood by European philosophers, nor moral philosophy nor logic, and these three exhaust the field of philosophy proper. Why the Abhidhamma is not a metaphysic will be generally understood. Why it cannot be called moral philosophy is that none of the ethical questions such as, of what sort are judgments of value, or what is meant by the words 'good' and 'bad' are ever asked or attempted to be answered. Instead we have a preconceived scheme of good, bad, and ethically neutral mental states, and these mental 'states' include perceptual activities and emotions and also what would now be called mental attitudes. One is familiar with the notion of emotions and mental attitudes as being good and bad, but the classification of ordinary perceptual activities as good and bad is not found in any other literature whether ancient or modern, and deserves some explanation. The Abhidhamma does not attempt to explain the basis of this classification.

The intelligible portions of the Abhidhamma are, in fact, inquiries in the field of introspective psychology, and they emphasise, as the author points out in more than one place, a dynamic concept of mind, in accordance with the tradition attributed to the Buddha. And it is doubtful whether a purely introspective psychology can 'develop' today, although the author expresses hopes regarding the Abhidhamma. The observations that one finds in the Abhidhamma literature regarding perception, attention, imagery, dreams and such mental phenomena are certainly the most significant contributions to psychology in the ancient world, at least our portion of the ancient world, and they illustrate the success of the empirical method demonstrated by the Buddha. They are in far greater advance, for example, of the psychological material one finds in Indian philosophical systems. What would be of interest to modern scholarship would be to extract this material and present it in a language that could be understood today, for the interest they may have to historians. This kind of treatment of the Abhidhamma was begun only by Mrs. Rhys Davids, but she has left a great deal more to be done in this field. It is to be hoped that Bhikkhu Nyanaponika, with the understanding and grasp of the Abhidhamma that he shows in this book, will address himself to a task that will be of more interest to present-day scholars than his *Abhidhamma Studies*.

E. R. S.

Fundamentals of Buddhism—Four lectures. By the Venerable Nyanatiloka Mahā Thera. Published by the Bauddha Sāhitya Sabhā. Price Re. 1.50.

These lectures contain authoritative expositions of certain important doctrines of Hīnayāna Buddhism by an author who is well-known to the Buddhist public both as a translator into European languages and as an able exponent of Buddhist philosophy. The first lecture gives us a clear description of the specifically Buddhist view-point, and emphasises many aspects of Buddhism which would naturally strike foreigners because they come fresh to it, and would escape the notice of people who take Buddhism for granted. He does well to emphasise the fact that reliance upon authority, the practice of rites and rituals, and blind dogma of any sort was rejected by the Buddha, particularly at a time when a great deal that does not belong to Buddhism goes under its name, and the general ignorance on such matters is made use of by politicians for their own ends. The Venerable Mahā Thera gives us an exposition of the doctrine of Karma or rebirth, and attempts to reconcile it with the other characteristic Hīnayāna doctrine of *anattā*. One wonders, however, whether the reconciliation is possible, and whether the theory of *bhavanga sota*, invented later in the time of the Abhidhamma, is a soul in disguise, at

least in some senses of the word 'soul'. These lectures are meant for lay audiences, however, and this perhaps accounts for the fact that the author has not gone into the historical and philosophical aspects of the problem.

An exposition of dependent origination is also given according to the traditional manner, but little light is thrown on either the meaning or the history of this curious formula. If the formula is to be intelligible at all, *viññāṇa* must be taken in an escatological sense, and the question is, how far authentic is this escatological sense of *viññāṇa*? It is certainly not the sense in which the word is used in the Sutta Nipāta and the early gāthās. As it stands, the formula is partly psychological and partly biological. Another question is, is it a formula of cosmic evolution or does it describe the evolution of the individual, or does it, as Oltramare suggested, only describe the origin of sorrow? The latter suggestion is strengthened by the exposition of the origin of sorrow in the Dvayatānupassanā Sutta of the Sutta Nipāta, where most of the links in the chain are severally connected up with *dukkha*. In any case we are up against the difficulty of giving the entire chain a consistent explanation.

Regarding important question of whether, in the Buddhist scheme of rebirth there is room left for free will, the Mahā Thera disposes of the question by stating that since, according to Buddhism, nothing arises without conditions, the will is no exception. It would be interesting to know how this would be different from determinism.

E. R. S.

The English-Pali Dictionary. By the Venerable Paṇḍita Wīdurupola Piyatissa Mahā Nāyaka Thera The Colombo Apothecaries' Company Ltd., Colombo, B.E. 2493 (1949).

The Venerable Paṇḍita Wīdurupola Piyatissa Mahā Nāyaka Thera's English-Pali Dictionary has supplied a long-felt need of students of Pali. It contains nearly 27,000 English words for which three times as many Pali equivalents have been given. Pali ceased to be a spoken language nearly two millenniums ago. The living tradition handed down to the present day by successive generations of scholars in monastic centres of learning has however merited an intensive study of the language. The literary efforts of writers of Pali from post-Canonical times up to the present day testify to the skill of handling a language which had long ceased to be a spoken tongue. A correct study of a language necessarily involves composition, both original and in translation, and this is the main concern of students whether in schools or in the university. It was the practice of student-translators to resort to the help of English-Sanskrit Dictionaries to get their difficulties solved. As there is a wide disparity between the semantic development of Sanskrit and that of Pali, even though they are sister-languages, students were seldom able to get at the Pali word which expressed the precise shade of meaning required. This work therefore is a boon to students.

There were not in vogue Pali terms which were the exact equivalents of English terms for modern concepts and scientific names. The Venerable Thera has coined a large number of Pali words to supply this need. It should be mentioned that he has given a very large number of words which, as Prof. G. P. Malalasekera in his Foreword states, a less conscientious compiler would have readily left out. There does not appear to be, however, a fixed principle on which he has selected the terms for inclusion in the Dictionary. Some of the commoner minerals, plants and animals have been omitted while those that are less known have been included. There should be little difficulty in coining Pali equivalents of words and phrases to express ideas which the original Pali speakers had never even thought of. The numerous explanations paraphrasing English words in this Dictionary do seem

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to overcome the paucity of such terms in the original Pali. On the other hand, however, the attempt made to translate a large number of English words which in themselves are incongruous with Pali has not met with the desired results. At the same time the compiler has weeded out terms of a highly technical nature and those one comes across in very narrow universes of discourse.

The Dictionary would not have suffered in any way if more such words had been left out. The inclusion of more terms connected with philosophy, metaphysics and psychology, etc. would however, have been a great advantage. It is worth noting that almost all English words in common usage have been included. His choice of Pali is generally good and the shades of meaning required in Pali has been one of the guiding factors. Even so there are instances where this choice has been made at random. The work as a whole suffers from a general lack of precision as a result of the compiler resorting to paraphrases in his eagerness to explain the English word rather than pick out the nearest equivalent occurring in Canonical or non-Canonical literature. These paraphrases mar the general tone of the work, which as it is, is generally high for a work of this nature.

This naturally leads to the question of the method used in compiling this Dictionary. The author has followed closely the Handy English-Sanskrit Dictionary for the selection of English words to be put into Pali. Besides this he has resorted to a whole heap of English Dictionaries in addition to an antiquated English-Sinhalese Dictionary. He could have dispensed with all this, with the exception of a standard shorter English Dictionary (e.g. the Oxford Concise) if he had made the Pali language the starting point of his work. An easier alternative would be to make a good Pali-English Dictionary (e.g. P.T.S., Copenhagen—incomplete—or Childers') the basis of the work. If he had resorted to this method he would have been able to add many more words in use in Pali than be content with mere paraphrases.

This is the first work of its kind in the field of English-Pali Dictionaries, and as a pioneer work it has attained a high standard. Hitherto students of Pali in schools, universities and monasteries (*pirivenas*) had to depend on glossaries and vocabularies appended to text-book editions of Pali works and books on Pali composition. The former are too few in number while the latter are of such poor quality and full of inaccuracies that they tend to mislead students. This Dictionary is a valuable guide to all students from the advance school stage up to the final examinations at universities.

Students often use in their composition words and phrases which they themselves feel are not too happy. In the absence of a suitable Dictionary they were compelled to do so. They were content to use Sanskrit expressions even though they lacked the softness of Pali. The Venerable Thera's experience as a teacher of the language has given him an insight into the usual pitfalls students are subject to. Wherever possible he has explained the words in lucid Pali. The paraphrases and words of his own coinage, though not always accurate have the ring of good Pali. There is no indiscriminate use of Sanskrit words. Where he has resorted to Sanskrit, only those meanings which fit in with Pali have been picked out.

Mingled with his paraphrases are explanations in Pali e.g. gargoyle : *pāsādesu sīha-mukhādīsaṇṭhānena katā udakaniggamanappaṇālī*, linoleum : *bhūmmattharaṇaviseso*, malapropism : *susaddavohārappayatane dussaddavohāro*, etc. This however, does not enhance the quality of the work. He has included several phrases in current use e.g. make-believe, make-shift, make-peace, long-run, long-shore, long-sighted, long-tongued, long-winded, etc. These are very helpful to students and many more such phrases would have been welcomed by students. He has made full use of the lists of nouns in Pali lexicons (*Nighaṇḍu*) e.g. king : *rājā*, etc., man : *manusso*, etc., etc. He has employed the highly productive Pali suffixes -*ñu*, -*ja*, -*gu*, etc. to coin new words and to translate English words ending with suffixes -ist, -er, etc. The supplementary explanations in Sinhala are

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helpful to Ceylonese students but more explanations in Sanskrit would have been appreciated by all students of Pali. Some of his paraphrases are not quite apt e.g. *brunette* : *kālavāṇṇa-piṅgalakesī-nārī*, when the Canonical Pali word *maṅguracchavī* would have been more suitable. He explains maize as *dhañṇaviseso*, but if he had gone into the long lists of grains in Canonical Pali he would have been able to select the correct name. He has included the names of important chemicals and metals, scientific instruments, and modern ideas as suffrage (*anumatidānabalaṃ*) and even colloquialisms as cop (*daṇḍadhavo*, *rajaपुरiso*). The gender of each word has been indicated by using the appropriate nominative singular form.

In spite of the few short-comings in the Dictionary, it is on the whole, an admirable work, the result of patient toil and deep erudition. Though it is priced rather high (Rs. 20.00) all students should benefit by it.

N. A. J.

The Concise Pali-English Dictionary. By the Venerable A. P. Buddhadatta Mahāthera. The Colombo Apothecaries' Co. Ltd., 1949.

At long last a shorter Pali Dictionary has become available for use in schools. The Venerable A. P. Buddhadatta has to be commended for devoting some of his valuable time to writing books for school-use, in the midst of his researches. His New Pali Course which is widely used by beginners is fully supplemented by this Dictionary, as the technique and method adopted in both works are identical. It is quite clear that the learned Mahāthera does not wish to burden young minds with complex problems and grammatical intricacies which involve scientific precision and an altogether different outlook to solve. As in the New Pali Course, he has modified the classical method adopted by traditional grammarians and evolved a system of his own which might serve as a foundation to a student's scientific study of the language later on. This explains the elementary nature of the Dictionary in contrast to the stamp of scholarship seen in his researches.

The Dictionary contains about 12,000 entries which cover most of the words in frequent use in Pali. Though he has been successful in condensing the extant Pali lexicons, there are numerous places where improvements are desirable. One such instance, is the stating of the etymology of one word only when the same sound represents another word whose meaning alone is mentioned, e.g. *khata*, *tarati*, etc. It is needless to remark on the question of historical grammar as it does not come within the scope of a work like this. However, a question he has raised in the preface should not pass unnoticed. *Anabhāva* is decidedly not *anu-abhāva*, but contains the 'popular' negative prefix *ana* which is derived analogically from instances like *anaḍhigata* and *anavajja* (*vide*, Morris, *J.P.T.S.*, 1884, p. 70 on *anamha*); further examples are : *anamatagga*, *anavaya*, etc.

He has given the Sinhala meanings of trees and plants which is quite useful to students as botanical names convey nothing to them. The Dictionary is of value to students in building up a working knowledge of the language and provides as Prof. O. H. de A. Wijesekara states in his Foreword, "a basis on which to build up a more scientific knowledge as the study advances".

N. A. J.

Pricing in Planned Economy. By B. V. Krishnamurti, Oxford University Press. Rs. 7.00, pp. 135.

Since the inauguration of the Soviet First Five Year Plan, there has not been any dearth of criticism of the planned system of economy. During the first few years the inevitable collapse of the Russian economy was predicted. Later these false prophets along

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with hosts of new recruits who had been conditioned on the Marshallian School, changed their angle of attack and began to find fault with the planned system vis-a-vis the *laissez-faire* capitalistic system. One of their chief burdens was that the planned economy is dictatorial and antithetical to free-institutions. Planning was serfdom and slavery. Capitalistic economy on the other hand guarantees the sovereignty of the consumers and subordinates the entire capitalistic class along with their productive-system to the wishes of the consumer.

Since the 1931-33 depression, however, the defenders of the planned-economic system have grown in number and have added to their armoury powerful weapons of offence and defence. In this little book of 135 pages, the author has succeeded in presenting weighty arguments which convinces the reader about the superiority of the planned system and at the same time acquaints him with some of the intricate problems of planning. The author believes that the maximisation of social welfare is the criterion of judging an economic system. Under perfect competition this *social* criterion is realised through the realisation of the *private* criterion of maximisation of profit via price-fixing at minimum average cost. Since perfect competition is an *ideal* construction without a real basis in present day capitalistic society, the *social* criterion is never fulfilled under actual conditions. Under planning, by fixing the price at marginal cost, however, this criterion can easily be realised. The author discusses the implications of this price-fixing rule (viz. price to be equated to marginal cost) under planned economy, not only in case of consumption (Ch. II) but also in case of the more complicated problem of allocation of resources (Ch. III), and the various problems of the firm (Chs. IV and V). There is a chapter on large-scale production in which the author further strengthens the armoury of the planners by a natural extension of the logic of large-scale production.

The problems discussed in the book are abstruse in character and the style of writing is heavy, nonetheless, the reviewer can promise to its readers a rich intellectual repast—to a few because of its mathematics—to others in spite of it.

N. K. S.

The Economics of Disturbance. By Prof. David McCord Wright. Macmillan. New York, 1947, pp. 115.

Professor McCord Wright's thoughtful essay in economic dynamics is welcome for a number of reasons. As indicated in the preface, its writing was begun as early as 1941. The mere size of the book is, therefore, no index to the quality of the argument which Professor Wright presents.

Apart, however, from its clearness of exposition, Professor Wright's book possesses another feature which is not frequently to be found in economic writings at the present time. This is the tendency to flaunt a knowledge of mathematical symbols and formulae, however irrelevant for the purpose in hand. In the state of suspended animation in which the social sciences have survived during the past half century a variety of spurious and doubtful claimants to the coveted title of scientific disciplines have made their appearance. Some have already fallen by the wayside, while still others keep putting forward new and more pretentious claims. Among these newcomers must be included the science of Econometrics, which has been unusually fertile in discovering ever newer formulae and increasingly ingenious symbolical presentations of economic data, as well as more weird diagrammatic representations of consumption and investment patterns. While these developments may not be without considerable uses of their own, their importance for the development of economic theory has, I think, been vastly exaggerated. For, in the last resort, all this variety of mathematical constructions, as applied to the social sciences, can have value and meaning only in so far as their assumptions and simplifications of

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the human factors involved in given situations have been, themselves, correctly evaluated. And this evaluation can be achieved only by bringing the logical, imaginative and creative elements of thought to bear on the problem in hand, and not by the simple application of a mathematical formula. As Browning wrote :—

“ Mankind are not pieces ; there’s your fault !
You cannot push them and the first move made
Lean back and study what the next will be ;
Men go on moving while your hand’s away ! ”

Whatever, then, may be the final judgment on the success of Professor Wright in proving the thesis he seeks to establish, there can be little doubt about the value of his attempt to re-examine the foundations upon which the economic theorists are endeavouring to build their conclusions. Briefly, that thesis is the defence of capitalism as a principle of the organisation of economic activity, against attacks from a growing and impatient body of economic theorists who question the need for its continuance even a day longer. In this respect Professor Wright finds himself opposed not only by the economic theoreticians but, with even greater unanimity, by practical administrators. For it is hardly possible today to think of a single country outside the United States of America, where the Governments and official spokesmen are not emphatic in affirming that their ideal of economic and political organisation is a socialistic society. And even in the United States the champions of unadulterated laissez-faire are fighting a losing battle. Indeed one might almost claim that the issue of capitalism versus socialism has already in practice been settled overwhelmingly in favour of the latter. In other words, the issue at the present time is no longer whether the major industries and business activities of a country should be nationalised or not, but who is to run the nationalised industries ; that is to say, the problem centres round workers’ control of industry. In Britain which today provides the best example of State Socialism, the protest is growing in volume against management of nationalised industries by highly paid administrators selected not infrequently from among leading trade union executives and former managers of large industrial concerns.

But there is also another side to this question of State Socialism as it affects efficiency of production. How far is socialist planning able to achieve full employment and progressively rising standards of living ? On this matter Professor Wright has much to say that is both pertinent and valuable. And yet, granted the truth of all that he urges ; granted all the temptations to slackness and lack of initiative in socialised industry as compared with capitalism, Professor Wright has still to prove that capitalism as it exists today provides a more satisfactory alternative. Indeed he ridicules and condemns in no uncertain terms the growing monopolistic organisation and the socially obnoxious monopolistic practices to which capitalism increasingly resorts in the effort to survive. But Professor Wright’s disapprobation of Monopoly Capitalism can give little comfort to the millions who periodically stand face to face with growing squalor, poverty, and death, as part of the evil legacy of an outdated capitalism.

If then the question at issue is no longer that of Capitalism versus Socialism, but of State Socialism versus a more truly Democratic Socialism in which workers play an effective part is making the crucial decisions both as regards wages and management, the present crisis in British industry provides some useful evidence. In a recent issue of the British *Economist* the editor dwelt at length on the inefficiency which had overtaken British industry during a decade or more of gradually increasing state control and which, in his view, had rendered it incapable of competing in world markets particularly against “ Dollar goods ”. What is especially significant in this comment is the point made by the writer that in that large sector of British industry which still remains outside nationalisation, the capitalist

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entrepreneur no less than the workers are enthusiastic in their support of the present state patronage. For by this means they are able to enjoy the best of both worlds. The entrepreneurs are assured of stable prices and steady markets as a result of the bilateral agreements and long terms contracts negotiated by the government, while the workers receive higher wages than they would under competition. What then is the solution, "more or less competition" asks the writer, and decisively answers, "more"; which is also Professor Wright's answer. Others would equally emphatically reply, "less". Is it not the half-heartedness and the lack of confidence of planners under the existing forms of state socialism, in the efficacy of their own measures, rather than any intrinsic weakness in the principle of planning, which has hitherto been at fault? Does effective planning involve so serious an interference with the freedom of consumers to buy what they please, when they please, as to constitute a violation of the sacred principle of personal liberty? To argue thus is to find ourselves back in the days of the New Poor Law and the moral hesitations of the early Utilitarians, the confusion of values which held that income tax and the Shops Acts were likewise an infringement of personal liberty! And just as John Stuart Mill was driven by the logic of facts and democratic theory to acknowledge conversion to socialism, so also the latter day liberal economists as exemplified by Lord Keynes, have provided reformist socialism with an escape from an insoluble dilemma by enunciating the principle of State intervention in various phases of the business cycle as a necessary and integral part of capitalist organisation of economic activity! And yet almost as if to satisfy himself that he had not transgressed his liberal faith in making this supreme gift to socialist-Liberal reformers, Keynes concluded that "it is better that a man should tyrannise over his bank balance than over his fellow men"! But Professor McCord Wright is harried by no such doubts and perplexities. With cold logic he passes in review some of the important contributions made in recent years both for and against socialist planning as a solution to the economic chaos which capitalism has apparently produced. And throwing his weight on the side of capitalism he decides to go down fighting for a cause which he half realises is doomed.

Nevertheless, it is well to have had this brilliantly clear and lucid statement of the arguments on the two sides stated in the language of orthodox bourgeois economic theory. Professor Wright is at great pains to be fair to his opponent's case, although one cannot agree that he has really understood its real significance. The whole debate is conducted in a style of quiet and sober dignity. Perhaps what we have to be most thankful to the author for is the scrupulous care with which he defines the terms he uses. It is a virtue all too rare in these days of exciting and excited controversy, and is not infrequently the source of much irritating confusion in discussions even among acknowledgedly distinguished writers and thinkers.

F. R. J.

Indian Hill Birds. By Sálim Ali. Oxford University Press, 1949.

Rs. 20.00.

In this book Sálim Ali describes "the commoner birds—such as anyone could hope to come across at one time or another in the Indian Hills". He says that "to the ornithologist, the Indian Empire connotes the territory of the Indian Union, Pakistan, Burma and Ceylon". The author emphasizes the general interest which lies in the study of hill birds from the point of view of geographical distribution of animals and plants. The field characters and habits of more than eighty birds found in the central hill zone tract of Ceylon are lucidly dealt with and the colour plates enhance the value of the book.

W. F.

UNIVERSITY OF CEYLON REVIEW

Island Story. By J. Vijayatunga. Oxford University Press, Rs. 5.00. Illustrated by Ivan Peries.

What could one say? Mr. Vijayatunga sets the tone of his agreeable saunter through the history, geography and folk customs of Ceylon by the *Song of Lanka* which prefaces it. Composed on or for, "Ceylon Independence Day" it has all the qualities of the event it celebrates.

As the intention seems to be to tap a pastoral vein, and dilute it with unaffected cheerfulness and intimacy, one cannot quarrel with the result. Of course if Mr. Vijayatunga's attention had been restricted to particularities he knew and felt, the result might have been happier. But the range is so much widened that the effect is one of blurring, both in material and in style. One would have preferred a different kind of book, a book which might have engaged Mr. Vijayatunga's talents.

Mr. Ivan Peries' drawings show a variety of styles, some extremely interesting, some slap-dash. Where he attempts illustrating the text the work is least satisfactory.

Despite one's general dissatisfaction with the book, the type of subject and the possibility of compelling the interest of the reading public in Ceylon in it are to be commended. If one could judge from the evidence of films alone (which are much more popular than novels), the attempt to handle the background of the country in which we live in a medium which is both readily understandable and does not distort, has still to be made. The poverty and jejuneness of the film can, one supposes, be traced back to the deficiencies of the language. *Island Story* shows us some of the difficulties of that task.

E. F. C. L.

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UNIVERSITY OF CEYLON REVIEW

The University of Ceylon was established on the 1st July, 1942, by the fusion of the Ceylon Medical College (founded 1870) and the Ceylon University College (founded 1921). It has at present Faculties of Oriental Studies, Arts, Science and Medicine. Its seat is temporarily in Colombo, but it will be moved to Peradeniya, near Kandy, as soon as its new buildings are ready for occupation. The University has taken over from the Government of Ceylon the publication of the *Ceylon Journal of Science*, which will be developed as its chief means of contact with Scientists elsewhere. The *University of Ceylon Review* has been founded in order to make similar contact with scholars in literary subjects, to provide a medium of publication for the research in those subjects conducted in the University, and to provide a learned review for Ceylon. The *Review* is now published four times a year, in January, April, July and October. The Annual Subscription is Rs. 5, and a single copy Rs. 2.50.

University of Ceylon Review

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October, 1950

The General Report on the Census

THE practice of producing a General Report on the Census is an admirable one, since it enables the reader to appreciate the conclusions to be drawn from the detailed figures published in the remainder of the report. The Census of 1946 was taken after the publication of the Soulbury Report and while the Constitution of 1946 was in preparation. Mr. A. G. Ranasingha, C.M.G., C.B.E., who was Superintendent of Census, has therefore chosen to give a historical background. The first Chapter is an Epitome of History and the second a description of Ceylon on the eve of the census. Some may think that insufficient attention has been paid to the economic situation, but the tendency to exaggerate racial and political influences and to underemphasise economic forces is a correct characterisation of the environment created by the Donoughmore Constitution.

The Census Report is a quarry in which scholars will be able to mine for many years. In this review it is possible to pick out only a few of the features to which Mr. Ranasingha draws attention.

The population on March 19, 1946, was 6,657,339, excluding the non-resident population (Services and Shipping). This shows an increase of 1,350,468 or 25.4 per cent. since February 26, 1931. On the assumption that the present rate of increase will continue—an assumption which, as Mr. Ranasingha points out, is fallacious—there will be a population of 10,784,000 in 1981. We may note in passing that the crude birth-rate is tending to fall. For the decade 1921-1930 the mean was 39.8 per thousand. In spite of a sudden increase in 1943, for the period 1931 to 1945 the mean was 36.8 per thousand. On the other hand, the crude death-rate has fallen even more. For the decade 1921 to 1930 it was 26.5 per thousand and, in spite of the heavy mortality of the epidemic year of 1934, for the period 1931 to 1945 the mean was 22.2 per thousand. It follows that not only is the population increasing, but also the rate of increase is itself increasing.

Mr. Ranasingha is more optimistic about this phenomenon than most observers are likely to be. It is of course true that nobody can foresee what measures will be employed in thirty years' time to sustain a population

approaching ten millions. The resources of science have not been exhausted. The density of the population would be 399 per square mile, which is lower than that of England and Wales, Belgium, the Netherlands and Japan at present. No doubt as the population grows the Island's present one-sided economy will be diversified. Even so, there are few present signs of an increase of productivity. In spite of the colonisation schemes, the increase of population in the North-Central Province has been only 42,169 in fifteen years and the increase in the Eastern Province has been only 66,691. The increase in the Western Province, on the other hand, was 431,870.

Mr. Ranasinha's optimism is perhaps due to his belief that "there must have been in the Island at the height of its prosperity under the ancient kings a population exceeding by many times that found in Ceylon when the British first began to make their enumerations". The census directed by Governor Barnes in 1827 gave a population of 889,584. There can hardly be any doubt that wars, civil wars and malaria caused the population to begin to decline after 1000 A.D. if not before. It is also possible that the climate has changed—a point not mentioned by Mr. Ranasinha—and that the present dry zone had a much heavier rainfall than it has now. Even so, the evidence of ruins is quite inconclusive. The ruins of Anuradhapura bear evident signs of a wealthy civilisation; but its buildings were erected over at least 1300 years; there is apparently no evidence that they were all in use at the same time; and it costs little to maintain a temple once it has been erected. Indeed, it costs little to erect a temple if slave labour, labour employed under service tenure, or voluntary labour is employed. Nor is there any evidence about the proportion of the national income devoted to religion. The *Mahavamsa* and other religious documents are not good evidence about the condition of the people, for they necessarily tell a one-sided story. The tanks supply much better evidence; but as Mr. R. L. Brohier has pointed out, they were not all in use at the same time. As the larger tanks were erected the smaller tanks were deprived of their water supply and were allowed to silt up. It must have been as true a thousand years ago as it is today that adequate subsistence for one family requires five acres of land, of which two acres are paddy lands. There is no evidence that the wet zone or the hill country was occupied by a large population. It follows that the total population of the Island must have been comparatively small and that Sir Edward Denham's guess of four millions is more likely to be accurate than Sir Ponnambalam Arunachalam's estimate of ten millions.

Tea, rubber, coconuts, tobacco and plumbago have added to the resources of the Island and enabled a larger population to be maintained on imported food. They are incapable of much extension and the work of the Irrigation Department seems not to be keeping pace with the increase of the population.

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The problem, therefore, is to secure new sources of productivity which will enable a rapidly rising population to be maintained. The commonly accepted theory that the social services can be expanded for the working classes without lowering the standard of living of the middle classes is tenable only if productivity increases faster than the population. Otherwise the middle classes must pay for the improvement of educational, medical and other social services by a lower standard of living.

Though in the short term the increase in the population is determined by births, deaths and migration—the last of which is now comparatively unimportant—the potential increase is determined by the number and the fertility of women of child-bearing age. Attempts to find a formula which would enable future population to be forecast have invariably failed because fertility, unlike fecundity, depends not only on the facts of nature but also on social conventions. Even as the social conventions are being investigated they are changing. In the University we cannot fail to be aware of the change, at least in the classes from which we draw students, for the ratio of male to female students has fallen every year. While the number of boys in English schools rose from 48,302 in 1937 to 107,445 in 1947, the number of girls rose from 20,532 to 56,824. In vernacular schools in the same period the number of boys rose from 375,919 in 1937 to 462,346 in 1947 and the number of girls from 259,166 to 380,594. Thus the number of boys at school rose by 34 per cent. and the number of girls by 56 per cent., indicating a change in social convention which is bound to affect the birth-rate in the next generation.

There is, however, still an excess of males and in fact it has increased slightly since 1921. My tentative conclusion in *The Economy of Ceylon* was that this excess was due to excessive child-bearing. Mr. Ranasinha shows that this cannot be true. In most countries there is an excess of males at birth, but this excess of males is turned into an excess of females through the heavy mortality of males before puberty. In Ceylon, however, there is an excess of female deaths at nearly all ages, so that the excess of males is actually increased before puberty. It is true that the excess is highest during the reproductive years 15 to 49, so that the high rate of maternal mortality and excessive child-bearing have some influence. It may be noted, though, that the maternal mortality rate has diminished rapidly in recent years. Mr. Ranasinha gives the figures from 1937 to 1945, but since 1945 there has been a rapid fall.

To a person who has presumably been classed as a "European", the emphasis given by the General Report to "race" is an interesting social phenomenon, for it clearly reflects prevailing opinion. In fact, the Report very properly uses the term "race-conscious". It is, however, equally interesting that there are few references to caste, for the Sinhalese and the

Tamils are as "caste-conscious" as they are "race-conscious". In fact, race-consciousness is clearly influenced by caste-consciousness. Unfortunately caste is the subject of a tabu, so that we cannot obtain adequate information about it except by a costly sampling method. Mr. Ranasinha wanted a census item relating to caste, but the Executive Committee of Labour, Industry and Commerce refused to break the tabu. It would seem, however, that "racial" endogamy is really caste endogamy, for social pressure in all normal cases compels marriage within the caste and inevitably this causes marriage within the "race" also. "Race", on the other hand, is not tabu. On the contrary the infiltration of nationalist ideas from the West and the competing claims of politicians have given the emphasis to "race" which is very properly exhibited in the Report. Inter-racial marriages are few. On the average there are only 450 a year, or 650 if marriages between Ceylon Tamils and Indian Tamils are included. These figures relate to marriages in Ceylon, and they would probably be slightly increased if the census test were domicile and not residence, for some Ceylonese marry in Europe or India. The number of marriages between Sinhalese and Ceylon Tamils is, however, only about 150 to 170 a year; and this figure is probably accurate. The significant fact is, that, in spite of colour-consciousness, the Europeans and the Burghers show a much higher inter-marriage rate than the Sinhalese and the Tamils. Separate figures for Moors and Malays are not given, but in the Registrar-General's reports the number of "Other inter-racial marriages" is shown to be about 100 a year. It would seem, therefore, that the most strictly endogamous groups are the Sinhalese and the Tamils, the only groups which have caste distinctions.

The tabu on caste—which is to some extent broken by this Report, especially in Dr. N. D. Wijesekara's Chapter on ethnic groups—is itself a feature of great interest. The fact that it does not extend to India may suggest that it is due in the first instance to Buddhist influences. Among the Ceylon Tamils, too, the Brahmans have never been either numerous or powerful, and it is reasonably clear that in India the Brahmans, who stood to gain from emphasising caste, have been in large measure responsible for its survival. Western influences have also played a considerable part in Ceylon. Though Christians maintain caste and there are even, in some parts of the country, separate churches for separate castes, it is clearly inconsistent with Christianity, and Christianity has been a more powerful influence in Ceylon than in India. The problem of *Rajakariya* in the early British period is of great interest in their connection; for the Governors welcomed free labour and yet disliked caste. Governor Barnes alone was sufficiently ruthless to enforce *Rajakariya* and yet ignore caste, a fact which the Benthamite Colebrooke disliked intensely.

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The instruction for filling up the cage relating to "race" is an interesting example of the problem which this unscientific classification has created: "Enter the race of each person as Low-country Sinhalese, Kandyan Sinhalese, Ceylon Tamil, Indian Tamil, Ceylon Moor, Indian Moor, Malay, English, Scotch, Irish, etc. Do not use general terms such as British, Ceylonese, etc. As a general rule the offspring of parents of different races will follow the father's race, but Burghers and Eurasians or Euro-Ceylonese should be treated as separate races and described as Burghers and Eurasians or Euro-Ceylonese according to the statement of the persons themselves. In the case of a Sinhalese, you must state whether the person is a Kandyan Sinhalese or a Low-country Sinhalese. In the case of a Tamil or Moor you must state whether the person is a Ceylon Tamil or Moor, or Indian Tamil or Moor. In the case of an Indian, who is neither Indian Tamil nor Indian Moor, state the particular race, such as Malayali, Borah, Parsee. Similarly, in the case of an European the particular race should be stated, whether English, French, German, Russian, etc. A person from the Dominions or from the United States may be allowed to describe himself as a Canadian, and (sic) Australian, a New Zealander, a South African, or an American, as the case may be, if he prefers this to giving his original racial stock. Where a foreigner has been naturalized as a British subject, note to add in brackets after his race the letters N.B.S. thus: German (N.B.S.)"

What a pretty kettle of fish this lands us into may best be examined by beginning with the so-called "races" which are not endogamous, those generally classed as "European". By way of example, take the case of a lady whose "race" I had to determine for the purposes of this census. The late Herr Hitler would have called her "Aryan", but an anthropologist would probably have called her "Caucasian". Since she was born in England Mr. Ranasinha's minions would probably have called her "English", though nobody in England has yet discovered an "English" race. Since on Mr. Ranasinha's definition her father and mother were of different "races" (like the parents of most of the so-called "English"), we must examine the "race" of her father. Now this is a bit complicated. His surname suggests that several centuries ago his forebears were Spaniards, but that it has gradually been converted into a Polish name. He was born on the banks of the Oder in a place which was Polish until the partition, German when he was born, Polish again at the date of the census and appears now to be Russian. He spoke Polish with a German accent, German with a Polish accent, French with an English accent, and English with an accent of his own. He had not lived in Poland (or Germany) for 56 years.

Apparently an "American" who had one "English" ancestor in the direct line ten generations ago ought to call himself "English" though his "Englishry" (a perfectly good word known to Anglo-Norman Law) might

be less than one-thousandth of his personality. Actually, most Americans are Irish, for "Irishism" is known to be a dominant characteristic which causes the multitude of other characteristics which make up an "American" to be bred out.

The whole theory of "race" is, of course, nonsense; but Mr. Ranasinha must be forgiven because "race" is a popular fiction. It works very simply. Caste endogamy having prevailed for several generations, every person thinks he belongs to a "race" and so it is very simple to ask him to what "race" he thinks he belongs and take his word for it. The fact that most of the "Low-country Sinhalese" are of mixed Vedda-Sinhalese-Tamil-Portuguese descent does not matter, provided that they think they are "Sinhalese". If one works out the number of descendants that one rather promiscuous Portuguese soldier might have had, one soon reaches the conclusion that all the people of Ceylon might be, in Mr. Ranasinha's sense, "Portuguese". We know, in fact, that nearly all the "Portuguese" of the second generation might have called themselves, for census purposes, "Eurasians" or "Euro-Ceylonese". It is clear enough, though, that most of the descendants of the Portuguese have called themselves neither "Portuguese" nor "Eurasians", but "Sinhalese" or "Tamils". The number of persons actually returned as Eurasians or Euro-Ceylonese was 3,123, but some people with Portuguese or English ancestors call themselves Burghers, the number of whom was 38,803. If this figure were taken at its face value the conclusion to be drawn would be that the Dutch were the only promiscuous "Europeans" to stay in the Island. We know however that social conventions have changed, partly through the exaggeration by the northern social groups of that colour-consciousness which seems to be shared by all the Aryan-speaking peoples (including the Sinhalese), and partly through the Puritanism which affected both the Dutch and the British. We know from extrinsic evidence that the Portuguese had no inhibitions, and they must have affected the stock from which a large proportion of the people of the western coastal belt are drawn.

Dr. N. D. Wijesekera gives a useful chapter on the Ethnology of the peoples of Ceylon. The definition of "race" which he takes from Sir Alexander Carr-Saunders is less useful than the definition of an elephant as an animal with four legs. It would be very easy to select from the students of the University of Ceylon "a group of people showing similar tendencies, features and mental make-up"; but they would be drawn from several "races" as defined for census purposes. Nobody denies that there are in Ceylon different social groups with socially inherited—not biologically inherited—characteristics such as religion, language, costume, food, methods of cultivation, marriage customs, etc. These groups are not necessarily "racial" in the Ceylon sense, for they may be based on caste, occupation or education. Nobody denies, either, that caste endogamy, which has prevailed with few exceptions for

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several generations at least, has bred physical differences. I should guess that I could distinguish a Sinhalese from a Tamil in sixty or seventy per cent. of the cases, but when Sir Alexander Carr-Saunders—who could see no distinction whatever—asked how it was done, I had to reply that it was a general impression only, for though I could give some indications, none of them was conclusive. It is significant that I am almost invariably wrong about a Sinhalese from the North-Central or North-Western Province, for in those areas there must have been greater inter-breeding than in the south or the north.

The emphasis on “race” has affected the chapter on literacy. As is well-known, the Special Committee on Education, having for a large part of its discussions avoided the problem by talking about a national language called “Sinhalese-or-Tamil”, was at last brought to define “mother tongue”. This was :

- “(a) Where both parents are Sinhalese or Tamil then Sinhalese or Tamil, as the case may be ;
- (b) Where the parents belong to different communities, the home language, i.e. the language commonly spoken by the parents and the children ;
- (c) In the case of all others, English, Sinhalese, Tamil or Malay whichever the parents desire to adopt”.

Mr. Ranasinha, in the Executive Committee, or both, adopted a different definition :

- “Enter in this cage the language of the race to which his father belongs under each person who can read to write it. In the case of Ceylon Moors, Burghers and Eurasians or Euro-Ceylonese, the mother tongue should be regarded as the normal language of the home, whatever it be”.

It will be seen that, for the Special Committee, the “mother tongue” of an English-speaking Sinhalese-Burgher family would be English, whereas for the census it would be Sinhalese. Both definitions are, however, infected with racialism, and it may be noted that the 1950 White Paper quietly drops “mother tongue” and substitutes “the language of the home”. The racialism was, in fact, primarily nationalism. Though it is true that the Special Committee deliberately ignored the Tamil-speaking Sinhalese for communal reasons, the majority decision was really aimed at the English-speaking groups among the Sinhalese and the Tamils. Its primary purpose was to force a child to speak “Sinhalese-or-Tamil”, and only its secondary purpose was to force a Sinhalese to speak Sinhalese.

The census would have been more useful if there had been separate questions giving the following information :

1. Mother tongue ;
2. Languages spoken ;

3. Literacy in Mother tongue ;
4. Literacy in other languages.

Unfortunately the questions asked related only to literacy in the mother tongue and literacy in English so that the size of the English-speaking population is unknown. One realises, of course, that the answers to the question about languages spoken would have been highly subjective. I should myself have had the greatest difficulty in giving a correct answer.

The choice of the ages of 5 upwards for testing the proportion of literacy was no doubt dictated by previous census reports, but it is very arguable. The compulsory age for school attendance is 6, but it is well-known that many children start much later. Also, the change-over to mother tongue medium with English as a second language will affect the situation in future censuses, for very few children in the age group 5 to 11 will be literate in English. It would really be much simpler to ask the literacy questions only of those aged 15 and upwards.

We shall probably learn more about literacy when the detailed figures are available, for the chapter on literacy fails to answer some of the questions that one would like to ask. It does not show, for instance, that the *number* of illiterates has increased, while the *percentage* has decreased. The figures given in Table 13 of the Statistical Abstract of Ceylon, allowance being made for children under 5 years of age, are as follows :—

	<i>Literates</i>		<i>Illiterates</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
1921	1,156,100	381,500	897,200	1,420,300
1946	2,170,700	1,182,000	926,700	1,520,300
Difference	+1,014,600	+800,500	+29,500	+100,000

These figures are encouraging, but they do not produce quite so complacent a state of mind as the percentages given by the General Report, which show that male literacy has increased from 56.4 to 70.1 per cent. and female literacy from 21.2 to 43.6 per cent. Also, one would like to have figures showing literacy by age groups. Though some countries, like Soviet Russia, have made vast claims for schemes of mass education, the experience of countries which do not regard statistics as instruments of propaganda is that little can be done to increase literacy among adults. The real question is whether the children are being taught at school. Unfortunately, the children at school have never (apparently) been classified according to age and in any case the ages given in the census returns are subject to a large margin of error.

The result is given in the General Report. There were 826,452 boys in the age-group of 5 to 14 years, while the number on school registers in 1945

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was 492,317, or 59.6 per cent.; there were 790,553 girls in the same age-group; and the number on school registers was 372,240 or 47.1 per cent. Since 1921 the number of children of school age at school has increased from 36.3 per cent. to 53.5 per cent. These figures are, however, misleading; for they ignore the general exodus from the vernacular schools at the age of 11+. The proportion of children receiving *some* education is much higher; the proportion of children receiving the *minimum* of eight years' schooling is very much lower. Experience in England, where there are no language difficulties, has suggested that in the present generation, born to parents of whom 98 per cent. were literate, 2 per cent. of the young men and women are really illiterate notwithstanding *nine* years of schooling. Though a person who has been at school for four or five years may be treated a literate for census purposes—the test is to be able to write a short letter and to read it, but it is unlikely that the test was imposed very frequently—the chances are high that he cannot read or write fluently. Unfortunately the figures showing the number of children of each age-group at school—which are published every year for England and Wales—have not been collected for Ceylon. In 1947 the figures for each class (without reference to age) were collected, and they produce the results given below. The ages given are not the true ages, but what ought to be the ages. Many of them will in fact be “over-age”.

School	Age	Number of Children			At School		
		Boys	Girls	Total	Boys	Girls	Total
Infants	5 + to 7 +	256,359	244,568	500,927	319,536	256,266	575,802
Junior	8 + to 10 +	243,166	241,906	485,072	158,926	115,212	274,138
Primary	5 + to 10 +	499,525	486,474	985,999	478,462	371,378	849,940
Middle	11 + to 13 +	243,666	232,156	475,822	73,578	50,750	124,328
Upper	14 + to 17 +	302,375	255,104	557,479	16,789	13,529	30,318

It will be seen that the number of children in the infants' classes is larger than the number of children of the age-group 5 to 7, indicating that many children who are over-age for those classes are in fact in them. Since there are not similar figures for an earlier year, we cannot say offhand whether this is due to a sudden enthusiasm for education or the provision of new schools or whether it is a normal phenomenon. Probably all three explanations are partially correct. If we take the Sinhalese and Tamil schools alone for the years 1944 and 1947 we get the following comparison:

	1944	1947	% Increase
Schools	5,269	5,414	2.7
Pupils	722,426	842,940	16.8
Teachers	19,216	19,269	0.3

Since the number of pupils has increased much more than the number of schools, the most important explanation must be a change in social conventions. The number of boys has increased by about 52,000 and the

number of girls by about 68,000. Evidently female education is spreading all along the line from primary school to University. We must therefore assume that the distribution is not static, but that the proportion at school at all ages is on the rise.

If we could assume that there were no over-age pupils in the primary school, we should find that in 1947 there were at school nearly 96 per cent. of the boys and nearly 80 per cent. of the girls of the primary school age : but we should get very different figures for the 11 + to 13 + age group, for they would fall to 30 per cent. of the boys and 22 per cent. of the girls.

These considerations suggest a considerable modification of the census figures. On the one hand the census grossly exaggerates the degree of literacy because most of those who are classed as "literate" have not had more than six years' schooling and therefore cannot be genuinely literate. On the other hand a vast change is taking place which may result in an enormous increase in genuine literacy among the young men and women in ten years' time and will at least result in a larger increase of literacy at the census level. The most impressive change of all is the revolution in the education of girls. Whether this will go beyond the age of puberty has yet to be seen, but the indications from the English schools and the University are that it will. The effect on the general standard of education of the next generation, most of whom can hope to have mothers who can read and write, will be incalculable.

We must, however, revert to the irrelevant and rather stupid question about literacy in the mother tongue. We may note in passing that while there were only 178 "Arabs", no less than 1,391 persons, of whom 54 were females, could read and write Arabic as their mother tongue. Since the mother tongue of a Ceylon Moor is his home language, there must be a remarkable number of families in which Arabic is spoken at home. It is a pity that the Special Committee on Education could not find any. Under the White Paper it will now be necessary for the Department of Education to provide schools using Arabic as medium of instruction.

For the rest, information is given only about Sinhalese, Tamil and English. The population over 4 is not classed according to "race", so one must take the whole racial population. The following are the figures :

<i>Race</i>	<i>No. of Race</i>	<i>No. Literate in Mother Tongue</i>	<i>Percentage (Pop. over 4)</i>
Sinhalese	4,620,507	2,442,418	60.8
Tamils	1,514,320	815,436	48.0
Burghers } Europeans }	47,344	36,252	85.7

The figure for "Burghers and Europeans" may be inaccurate, for it may not take into account those "Europeans" whose mother tongue is Scots,

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Gaelic, Welsh, American, Manx, Cornish, Australian, and what not. I had myself to declare that a "European" in my household was illiterate in her mother tongue, as defined for census purposes, though she was literate in her mother tongue as defined by the Special Committee on Education.

The absurdity of taking mother tongue is, however, indicated by the figure for the Tamils. To suggest that 52 per cent. of the Tamils are illiterate seems ridiculous until one realises that the figure includes the Indian Tamils, who have the same mother tongue as the Ceylon Tamils but quite distinct standards of education. Literacy in the Jaffna District is in fact 70.6 per cent. while on the Estates it is 32.3 per cent. The fact that they have a common "mother tongue" is quite irrelevant. If the estate population be excluded and my arithmetic is correct, the literacy rate rises from 57.8 per cent. to 61.6 per cent. This is a truer measure of the efficiency of the educational system, for nobody has bothered much about the education of the estate population.

The number of people literate in English is probably the most accurate of the literacy figures. It was 367,622, of whom 107,757 were females. Male literacy in English was 8.4 per cent. and female literacy in English was 4 per cent. Assuming that 36,252 were "Burghers and Europeans", the other "races" have 331,370 persons literate in English. These figures may be compared with our assumption in the University—based on income and not on language—that we drew students from a population of 350,000. Our "constituency" has, however, increased lately because many of our poorer students came from Sinhalese-speaking or Tamil-speaking families.

Mr. Ranasinha says that "the growing demand for an English education" had not been appreciably met. Oddly enough, the Special Committee's insistence on "mother tongue" seems likely to result in a substantial increase in English education. The following figure indicate the change since the census :

		1945	1949
Children in English Schools			
Male	..	66,152	150,494
Female	..	34,164	87,184
Total	..	<u>100,316</u>	<u>237,678</u>

The employment figures cannot be compared with those for previous censuses, since new and better definitions have been used. The only figures now available relate to the *principal* occupations of those who earned money or money equivalent. The number of persons "gainfully employed" in this sense was 2,611,524 or 38.9 per cent. There is, as might be expected, a

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comparatively high level of employment among women. Among males the proportion was 57.2 per cent. and among females 18.1 per cent. The principal women's occupations are given as follows :

Tea	..	221,141
Rubber	..	64,468
Coconuts	..	13,483
Domestic Service	..	50,067
Cooks	5,515	
Ayahs	3,257	
General Labourers	..	36,513
Coir yarn makers	..	12,192
Rope makers	..	9,509
Lace makers	..	2,278
Mat weavers	..	10,880
Kadjan makers	..	2,619
Basket makers	..	1,357
Teachers	..	11,911
Vegetable sellers	..	5,225
Dhobies	..	7,815
Nurses	..	1,304
Midwives	..	1,657
Hospital attendants	..	1,877

Agriculture is still the Island's greatest industry, though trade and transportation (not industry) is beginning to make some impression. In agriculture the largest figures were :

Tea	..	467,713
Paddy	..	282,854
Rubber	..	204,210
Coconuts	..	69,683
Chenas	..	37,689
Vegetables	..	30,871
Tobacco	..	21,114

It should, of course, be remembered that only the "principal occupation" is given. Of the 282,854 persons engaged in paddy cultivation, only 82,014 were owners of paddy lands. Evidently Ceylon is far from being a country of "peasant proprietors".

Among the industrial occupations, the only large groups seem to be :

Goldsmiths	..	11,798
Coir yarn makers	..	13,024
Rope makers	..	10,425
Tailors, etc.	..	12,948

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Toddy drawers	..	15,105
Wood workers	..	61,006
Mat weavers	..	11,517
Builders	..	30,675

In the trade and transport occupations the largest groups were :

Carters	..	15,700
Motor car and bus employees		15,754
Railway transport workers		16,154
Food dealers	..	43,166
Small shopkeepers	..	83,388

On the whole, these figures confirm the impression that one gets by driving about the country. The importance of tea and rubber is emphasised, while the importance of paddy and coconuts has to be written down. Large-scale industry is of no importance, while the cottage industries still play a large part. The fishermen, who number 38,066, are not in the above list, nor is Government service as such, for many in the Government service are classed under other heads. The boutiques, village fairs and motor transport provide a substantial measure of employment, usually self-employment.

Finally, there is an interesting analysis of wage rates :

	<i>Males</i>	<i>Females</i>
	<i>Per cent.</i>	<i>Per cent.</i>
Under Rs. 40 per mensem	64.2	91.5
Rs. 40-120 per mensem	32.7	7.5
Rs. 120-400 per mensem	2.8	1.0
Above Rs. 400 per mensem	0.3	0.03

Presumably, though the point is not made clear, these figures relate to wages not to incomes. A self-employed boutique-keeper or hiring-car owner would not appear in it.

W. IVOR JENNINGS

Development of the Sinhalese Script from 8th Century A.D. to 15th Century A.D.

THE chief factor that led to the appearance in Ceylon of what may be described as the Sinhalese Script was the influence of the Pallava Grantha Script of South India on the Brāhmī Script which was prevalent in Ceylon upto almost the seventh century. In my paper on the Palaeographical Development of the Brāhmī Script in Ceylon from the 3rd century B.C. to the seventh century A.D.¹ an attempt was made to indicate the circumstances that led to the contact between the Pallavas and the Sinhalese. Table I attached to this paper shows the extent to which the Pallava Script has brought about the transformation of the later Brāhmī Script of Ceylon into what came to be called the Sinhalese Script.

This table has been compiled from the characters in the following inscriptions² :—

- A. 1. Nāgirikanda inscription of Kumāradāsa, (c. 570-579 A.D.).
2. Inscriptions near Burrow's Pavilion, (c. 7th century).
3. Nilagama inscription of Moggallāna II, (c. 603-622).

1. *University of Ceylon Review*, Vol. VII, No. 4.

2. The alphabet used in each of the records of the period covered is not represented in Table II, which is intended to give in broad outline the development of the script during the period 8th to 15th century.

The Tables I and II and Fig. 1 were drawn by Mr. L. Prematilaka, an undergraduate member of the Sinhalese Department of the University. My thanks are also due to Mr. F. H. Gunasekara, Assistant Superintendent of Surveys (Map Publications), Surveyor General's Office—who supervised the printing of Tables I and II.

In addition to the facsimiles printed in the *Epigraphia Zeylanica*, the following records were consulted in the compilation of Table II :—

1. Copper Plate Grant of Vijayabāhu I (12th century).
2. Waharakgoda Inscription, (13th century), Bell, *Kegalla Report*, plate facing p. 74.
3. *Cullavagga*, Ola Leaf Manuscript (13th century), Museum Library, Colombo.
4. *Visuddhimārga Tīkā* (13th century), University of Ceylon Library.
5. *Visuddhimagga Tīkā*, Arattana Purāṇa Rajamahavihāraya, Haṅguranketa.
6. Petigammana Inscription, (14th century), Bell, *Kegalla Report*, plate facing p. 80.
7. *Samyutta Nikāya*, Ola Leaf Manuscript, (15th century), Vidyālaṅkāra Pirivena, Kālaṇiyya.
8. Beligala Sannasa, (15th century), Bell, *Kegalla Report*, plate facing p. 94.
9. Dādigama Inscription of Bhuvanekabāhu VI, (15th century), Bell, *Kegalla Report*, plate facing p. 80.

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- B. 1. Early Pallava Grantha Alphabet, 7th century A.D., *Travancore Archaeological Series*, Vol. I, p. 220.
2. Grantha Alphabet of the time of Nandivarman Pallavamalla, (last quarter of the 8th century), *Travancore Archaeological Series*, Vol. I, p. 223.
- C. 1. Gāraṇḍigala inscription of Kassapa III, (c. 710-717).
2. Inscription at Ambasthala, Mihintale, 8th century.
3. Tammannāva inscription, 8th century³.

A study of Table I together with the chart illustrating the Palaeographical Development of the Brāhmī Script in Ceylon from 3rd century B.C. to 7th century A.D. in the *University of Ceylon Review*, Vol. VII, No. 1, shows that the Pallava Grantha has contributed towards the transformation of the Sinhalese Script during the seventh and the eighth century in two ways: 1. Modification of Sinhalese characters already in use, 2. The provision of characters which did not exist in the Sinhalese alphabet or had long become obsolete owing to desuetude. Letters which existed in the alphabet but have been modified by Pallava influence seem to be: *a, u, ka, ga, ca, ja, ḍa, na, ba, ya, ra, la, va, ha* and *ḷa*. It has, however, to be noted that side by side with letters modified by the Pallava Script, there exist also letters that were directly developed in Ceylon from early Brāhmī origins.

The characters that were not available in the current Sinhalese alphabet of the period immediately preceding the eighth century, but provided by the Pallava Grantha alphabet are: *i, o, kha, gha, cha, ṇa, tha, pha, bha, ṣa* and *śa*. From about the 3rd century A.D. upto about the eighth century the Sinhalese language had so developed phonetically that most of the letters indicated above, particularly the aspirates and the cerebral and the palatal sibilants, were seldom or never used. These letters, though often used in the early Brāhmī records of Ceylon, had no opportunity for development and had long become obsolete when in the seventh, eighth and ninth centuries, opportunities presented themselves for the use of these letters in lithic and other records. Owing to Mahayānist influences prevalent in the country at the time, the Sanskrit language was used for religious purposes and scribes could do no better than borrow from the Pallava alphabet, the characters that they needed to make the Sinhalese alphabet meet their new requirements, i.e. the letters mentioned above and some conjunct consonants.

The script used in the Iṇḍikaṭusāya Copper Plaques assigned to the 8th or the 9th century illustrates the extent to which the Pallava Grantha alphabet met the requirements of the Sinhalese scribes when they used Sinhalese characters to write Sanskrit.

3. Sections A and C are taken from *E.Z.*, Vol. IV, plate 15.

Medial vowel signs too were subject to considerable modification and development and the main features of this development are indicated below.

MEDIAL Ā: In the early Brāhmī stage long vowels, particularly medial *ā*, were not represented graphically. In the centuries following the Christian era long vowels did not find a place in the Sinhalese alphabet and consequently symbols to represent medial long vowels were not used in the records of this period. But towards the eighth century long vowels found a place in the language and had to be graphically represented in inscriptions. Thus Sinhalese scribes had to take over from South India the forms that were current there.

MEDIAL I: In the early Brāhmī stage the medial *i* was indicated by a vertical stroke attached to the top of the main letter by a short horizontal stroke. Later this symbol developed into a curve turned towards the left. In the documents of the eighth century the medial *i* has developed into a very pronounced hair-spring-like curve. Some of the symbols, e.g. in *mi*, *pi*, *ri*, *si*, *hi* in the inscriptions Nos. IV and V, *E.Z.* IV, plate 14 suggest Pallava influence.

MEDIAL Ī: This symbol takes the form of a semi-circular stroke with a loop at the right or the left extremity, *mī* and *vī* in the Rock Inscription at Rāssahela, *E.Z.* IV, plate 18, II, l. 4 and III, l. 10 respectively. The former context demands that *mī* should be read as *mī*. In many instances there does not seem to be any distinction between the short and the long medial vowel.

MEDIAL U: In the early Brāhmī stage two symbols were used to indicate the medial *u*. In letters of which the lower portion terminated in one or two vertical or diagonal strokes the symbol took the form of a short horizontal stroke attached to the vertical stroke of the letter (Fig. 1, No. 1) or to the right limb if it had more than one such limb (Fig. 1, Nos. 2 and 3). In all other letters the medial *u* was indicated by a short vertical stroke attached to the bottom of the main letter (Fig. 1, Nos. 4, 5 and 6). This distinction with certain modifications has been preserved upto the present day.

The medial *u* is indicated in the eighth century records by one of two symbols. The first consists of two short vertical strokes connected at the lower extremity (Fig. 1, No. 7). This is a development from the single vertical stroke used in the Brāhmī stage and may be traced to the Pallava script—for in this script the practice was to use two vertical strokes in places where only a single vertical stroke was used in the Brāhmī stage. This symbol was used to mark the medial *u* in all letters except *ka*, *ga*, *ta*, *bha* and *śa*. Sometimes the two extremities of the vertical strokes of the medial *u* are left unconnected, this form probably being the later type; medial vowel symbols in *ru*, *vu* and *qu* in the Rock Inscription at Rāssahela, *E.Z.* IV, plate 18, I,

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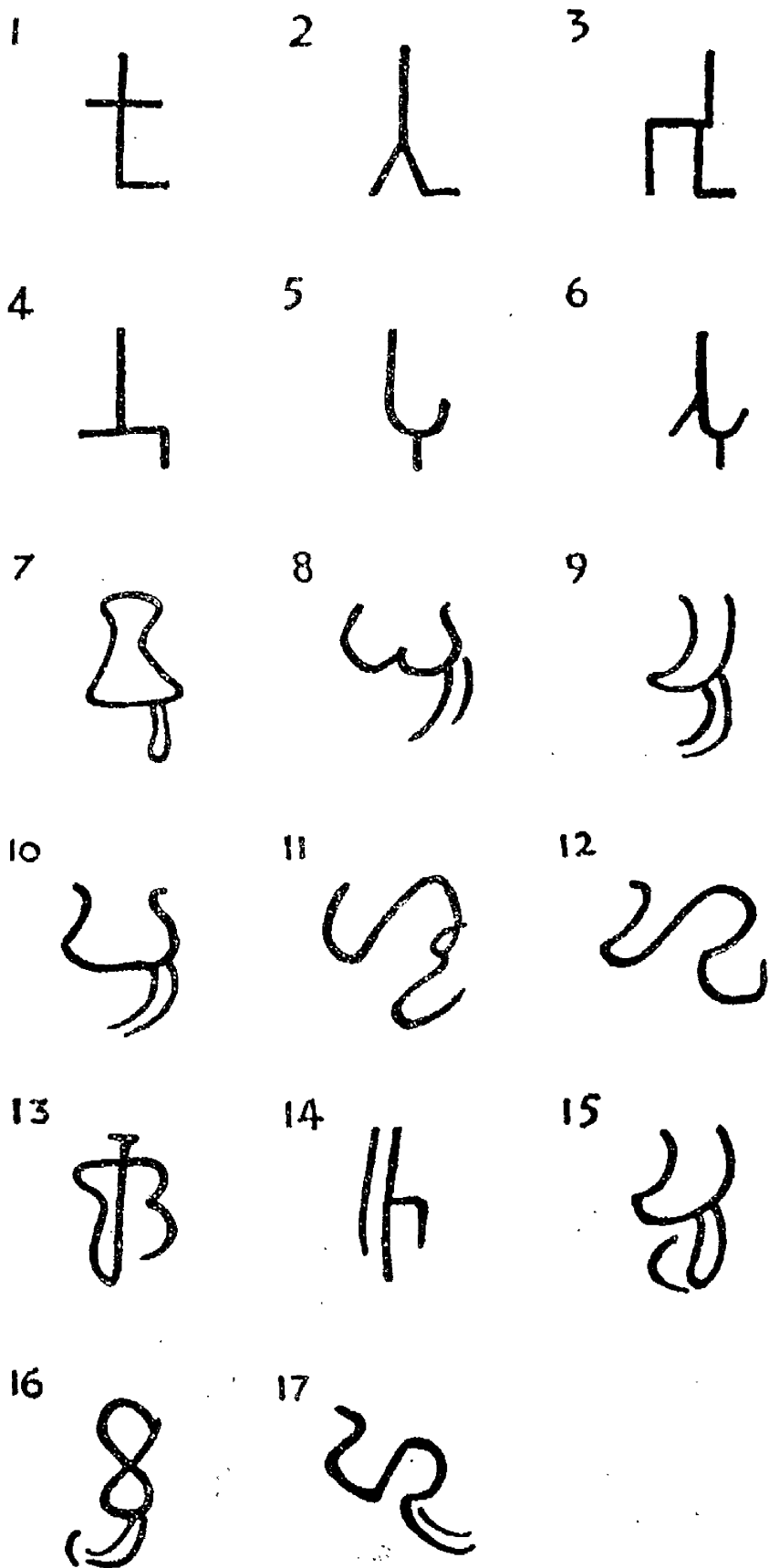


FIG. 1

illustrate this type. In the *Iṇḍikaṭusāya* Copper Plaques, *E.Z.* III, plates 17, 18 and 19, the medial *u* consists of two downward strokes and are curved towards the left, (Fig. 1, Nos. 8, 9 and 10). Occasionally the two vertical strokes are curved towards the left and also connected at the lower extremities.

The second type of medial *u* is used only in conjunction with the letters *ka*, *ga*, *ta*, *bha* and *śa*. It consists of a curved stroke opening upwards and attached to the right limb of the main letter, (Fig. 1, Nos. 11 and 12). It is however noteworthy that sometimes the medial *u* is marked in the letter *ka* with a small semi-circular stroke turned towards the left (Fig. 1, No. 13). In the letter *ra* this medial vowel is marked by adding to the right-hand side of the main letter, a short horizontal stroke which curves downwards (Fig. 1, No. 14).

MEDIAL Ū: Corresponding to the two types of medial *u* there are two types of symbols to indicate the long medial *u*. The first type consists of the two vertical strokes, curving to the left with an additional curve turned to the right (Fig. 1, Nos. 15 and 16). The second type is associated with the consonants *ka*, *ga*, *ta*, *bha* and *śa* and consists of the curved stroke used to indicate the short medial *u* with an additional curved stroke placed above it (Fig. 1, No. 17).

MEDIAL Ṛ: The medial *r* is indicated by a curved stroke, opening upwards placed below the consonant, see *kr*, *ḍr* and *mr* in the *Iṇḍikaṭusāya* Copper Plaques, Nos. 67, 72, 85.

MEDIAL Ā: The earliest instances of the medial *ā* occur in some 8th century records, namely:

1. A lithic record preserved at the Archaeological Museum, Anuradhapura, *E.Z.* IV, plate 14, No. IV.
2. Gāraṇḍigala Rock Inscription, *E.Z.* III, plate 16.
3. Tammānnāgala Vihāra Inscription, *E.Z.* IV, plate 14, No. VI.
4. Rock Inscription at Rāssahela, *E.Z.* IV, plate 18, I, II and III.

In these records the medial *ā* is represented by a small curved stroke opening upwards, placed at the right-hand top corner of the main letter. In the Gāraṇḍigala Rock Inscription, however, the curved stroke opens towards the right and is placed at the right-hand side of the main letter. (Cf. *gā* in *E.Z.* IV, plate 14, No. IV, line 2 and *bā* in *E.Z.* III, plate 16 B, line 6). Perhaps the origin of this medial *ā* may be traced to a symbol consisting of a small semi-circle opening upwards and placed above the main letter⁴. This symbol occurs in a few records of the eighth century⁵ and in the graffiti at Sīgiriya.

4. *E.Z.* IV, p. 146.

5. Mādagama Vihāra Rock Inscription, *E.Z.* IV, plate 14 and the Inscription found at Ambasthala, Mihintale, *E.Z.* IV, plate 14, No. V. Veherakema Inscription, *E.Z.* IV, plate 14, No. 1.

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THE VIRĀMA. The *virāma* sign occurs in Ceylon for the first time in the records of the eighth century, e.g. Gāraṇḍigala Rock Inscription, *E.Z.* III, plate 16; the Ambasthala Inscription, *E.Z.* IV, plate 14, No. V; Tammānnāgala Vihāra Inscription, *E.Z.* IV, plate 14, No. VI; Rock Inscription at Rāssahela, *E.Z.* IV, plate 18; Inscription near the stone canopy, Anuradhapura, *E.Z.* IV, plate 14, No. VII; Iṇḍikaṭusāya Copper plaques, *E.Z.* III, plates 17, 18 and 19. In these records the *virāma* is indicated by a short stroke placed above the main letter on the right-hand side, the exact position of the symbol depending on the fancy of the scribe. It may be mentioned that the *virāma* symbol occurs in South India in records written in the Pallava Grantha Script as early as the seventh century,⁶ and that the symbol used in these records is the same as was used in Ceylon.

The *antsvāra* and the *visarga* occur in the Iṇḍikaṭusāya Copper plaques and call for no remarks except to point out that the symbol for the former is sometimes placed inside the symbol indicating the preceding sound, as in plaque No. 18,⁷ and not after the symbol for the main consonant as in plaque No. 62.⁸

Conjunct Consonants and Ligatures

Except in one or two instances conjunct consonants and ligatures were not employed in the Brāhmī records of Ceylon.⁹ This feature, due no doubt to the peculiar structure of the Sinhalese language, is noticeable in the records of even the later period upto the end of the seventh century, when conjunct consonants begin to make their appearance. In India from the earliest times when Brāhmī records came to be set up, letters were generally placed one above the other in conjunct consonants, except in ligatures such as *pra*, *kra*, etc. where the *ra* was incorporated into one of the arms of the letter and in conjunct consonants such as *mha* where the peculiar shape of the component consonants permitted them to be placed side by side on the same plane. When the structure of the Sinhalese language changed in such a manner as to necessitate the use of conjunct consonants, the Indian practice seems to have prevailed on the Sinhalese scribes in Ceylon. Thus in the inscriptions of the eighth century most of the conjunct consonants have the components placed one above the other, e.g. *nda*, *sva*, *sta*, in the Ambasthala Inscription, *E.Z.* IV, plate 14, No. V, and *tta*, *tva*, *ndha*, *pta*, *ṛṇṇa*, *spa* and *hva* in the Iṇḍikaṭusāya Copper Plaques Nos. 1, 6, 8, 2, 58, 33 and 7 respectively. Side by side with these are also found conjunct consonants where the component letters are placed on

6. Kurram Pallava Grant, *Epigraphia Indica*, Vol. XVII, plate facing p. 340.

7. *E.Z.* III, plate 17.

8. *E.Z.* III, plate 19.

9. *University of Ceylon Review*, Vol. VII, No. 4, p. 286.

the same plane, e.g. *dlha*, *nda*, *nma* and *mba* in the Gāraṇḍigala Rock Inscription, *E.Z.* III, plate 16 and *kṣ*, *dda*, *rśśa* and *śśa*, *ṣṭa* in the Iṇḍikaṭusāya Copper Plaques Nos. 55, 77, 36, 91 and 72 respectively. The occurrence of these two types of conjunct consonants seems to indicate that the script was in a transitional state in the eighth century as far as the conjunct consonants were concerned.

In Sinhalese inscriptions the three ligatures, the *repha*, (*r* preceding a consonant) the *rakārūṃśaya* (*r* combined with a preceding consonant), and the *yanśaya* (*ya* combined with a preceding consonant) appear for the first time in the eighth century. These conjunct consonants are found in India in Brāhmī records of an earlier period, including the inscriptions of Asoka. In them the individual letters could be identified whereas in later records both in India and in Ceylon these sounds were represented by symbols quite different from the letters used to represent these sounds normally.

The *repha* is represented in Sinhalese documents by a curved stroke placed above the main letter. Sometimes this curved stroke opens towards the left and sometimes to the right, Iṇḍikaṭusāya Copper Plaques Nos. 21, 26, 37 and 54. It is the same as the symbol used in contemporary Pallava Grantha inscriptions of South India¹⁰. In plaque No. 73 the symbol takes the form of a semi-circle opening downwards almost like the symbol used in the present day. When the *repha* occurs in conjunction with sounds such as *ṇ*, *t*, *n*, *m*, *y*, *v* and *ś*, the latter character is doubled—Plaques Nos. 58, 61, 21, 59, 79, 54 and 36 respectively. When it is used in conjunction with *dha*, *d* precedes the latter as in plaque No. 53. In other instances the character that follows the *r* is not doubled as shown in plaques Nos. 37 and 73.

The two ligatures *ñca* and *jña*, occurring in the Iṇḍikaṭusāya Copper Plaques Nos. 36 and 23 respectively, indicate once again that their origin is to be traced to South India¹¹. The ligature *ñca* seems to be a combination of *na* and *ca* while the *jña* seems to be composed of *na* or *ṇa* and *ja*. The loop intended to represent *na* or *ṇa* in *jña* may have, in fact, indicated merely the nasalization of the *ja*. Thus the *jña* in the Iṇḍikaṭusāya Copper Plaques and in contemporary Indian records has the graphical value of *ñja*. In earlier Indian records *jña* was represented by a conjunct consonant incorporating the *ja* and the *ña*¹².

10. See e.g. the *repha* used in the Kurram Plates of the Pallava King Paramēśvaravarman I, *E.I.* Vol. XII, plates facing pp. 340 and 341.

11. Bühler, *Indian Palaeography* (Plates) Tafel VII, Col. XX, line 16 for *ñca* and Col. XXIV, line 16 for *jña*.

12. G. H. Ojha, *The Palaeography of India*, Plate XXVI.

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The letter *ra* when combined with another consonant takes the form of a curve opening upwards and attached to the latter on the right. In the Iṇḍikaṭusāya Copper Plaques this symbol seems to have been written with a sweeping flourish as in the contemporary Pallava Inscriptions cf. *kra*, *ndra*, *pra* and *śra* in Iṇḍikaṭusāya Copper Plaques Nos. 3, 2, 1 and 79 respectively with *pri*, *śri* and *trai* in plates IIIa, l. 20 ; IIIb, l. 31 and IVa, l. 37 respectively, of the Kurram Grant of Parameśvaravarman I¹³. The above remarks are equally applicable to the *ya* in combination with any other consonant. Both in contemporary Pallava records and in Sinhalese inscriptions the symbol takes the form of a sweeping curve drawn downwards and attached to the bottom of the right limb of the consonant ; the end of the curve is retraced upwards. Two other noteworthy ligatures that occur in the 8th century are *ddha* in the Iṇḍikaṭusāya Copper Plaques Nos. 53, 59 and *dva* Iṇḍikaṭusāya Copper Plaque No. 73 and Gāraṇḍigala Rock Inscription B, which may be compared with the corresponding ligatures occurring in contemporary Pallava records¹⁴.

The foregoing account of the Sinhalese script of the eighth century would show that it was still in a formative stage. The old Brāhmī forms had become obsolete during this period and new forms had been evolved or taken over from the Pallava Grantha Alphabet used in South India. The alphabet was striving to become a full-fledged alphabet that would be adequate even to meet the demands of the Sanskrit language. Mahayānist teachings introduced to the country at different periods seem to have played an important part in the development of the Sinhalese script at this time, as is shown by the variety of forms used in the Iṇḍikaṭusāya Copper Plaques.

9-10th Century A.D.

During the 9th and 10th centuries the Sinhalese script continued its course of development, marked changes being noticeable in a number of characters. The influence the Grantha alphabet used in South India can still be noticed—though to a very limited extent, in the Sinhalese script. This is as it should have been, for by this time the Sinhalese script had developed its own character and had marked for itself a particular course of development, and an individuality of its own in which a foreign script could play only a very minor role. Thus though an occasional *ka* or *ya* may show traces of the influence of the Grantha, most of the letters of this period can be considered to be natural developments of the forms used in the eighth century.

13. *E.I.* Vol. XVII plates facing pp. 340 and 341.

14. Velvikudi Grant of Nedunjadaiyan, *E.I.* Vol. XVII, plate facing p. 298 ; for *ddha* see plate I, l. 2 and for *dva* plate IIa, line 9 and IIb, l. 18.

The letters that seem to have undergone a considerable measure of development are *a*, *i*, *ka*, *ca*, *ṇa*, *ba*, *ma*, *ra* and *ḷa*, while the rest retain almost the same forms as they had in the eighth century.

A: The right component of this letter now takes the form of a rectangle, the single vertical stroke that formed this limb having been doubled as in the corresponding Grantha letter, Table II, cols. 7, 8 and 9; letters with a right component consisting of a single vertical stroke are also met with sporadically as in l. 6 in the inscription of Sena I at Kivulekaḍa, *E.Z.* III, plate 34 (II). The right component of *a* develops into a curved or triangular loop towards the tenth century, as in the Fragmentary Pillar Inscription in the Colombo Museum, *E.Z.* IV, plate 23, Sect. A, l. 13; the Slab Inscription of Kassapa V, *E.Z.* I, plate 12, and the Vessagiri Slab Inscription of Dappula V, *E.Z.* I, plate 8. An *a* with a right component consisting of a pair of parallel vertical strokes, left unconnected at the bottom, similar to letter No. 8 in Table II is noticeable in the Giritale Pillar Inscription, *E.Z.* III, plate 10, the Badulla Pillar Inscription of Udaya III, *E.Z.* III, plate 5, the Fragmentary Slab Inscription at the Buddhist Railing, *E.Z.* III, plate 25, the Stone Canoe Inscription at Anuradhapura, *E.Z.* III, plate 9, the Polonnaruva Pillar Inscription of Mahinda V, *E.Z.* IV, plate 7. Grantha influence can be traced in some of the *a* symbols in the Pillar Inscription of Kassapa IV, *E.Z.* III, plate 32 A, l. 12. A freak form of the letter occurs in the same record at line 29, section A. It can generally be said that during this period there was no standard form of the letter *a*: there were a number of forms which were used according to the tradition or even the fancy of the scribe.

I: This character was formed by placing two hair-spring-like spirals one below the other. But the letter took several different forms, owing to the shape of the spirals and the manner in which they were connected, as for example the *i* in the Īrippiniyāva Pillar Inscription, *E.Z.* I, plate 21 B, l. 12, D, ll. 2, 14 and 23. Cursive forms of the letter are found in the Kiribat Vehera Pillar Inscription, *E.Z.* I, plate 20 A, ll. 13 and 15 and B, l. 12, etc. The form that was to be common in the Polonnaruva Period, i.e. a form with a loop in the middle of the letter appears as early as the beginning of the tenth century, *E.Z.* IV, plate 23 B, l. 6 side by side with earlier forms, A, l. 4. These developed forms occur in the Badulla Pillar Inscription of Udaya III, the two inscriptions from Eppāvala, *E.Z.* III, plate 15, the Fragmentary Slab Inscription at the Buddhist Railing, *E.Z.* III, plate 25 and the Vessagiriya Inscription of Mahinda IV, *E.Z.* I, plate 29. Two forms Nos. 8 and 11 occur in the Giritale Pillar Inscription of Udaya II, *E.Z.* III, plate 10 C, l. 2 and ll. 15 and 18. An uncommon form of the letter *i* consisting of two flat curves opening downwards and placed one above the other, which perhaps can be traced to South Indian influence, occurs in the same record side C, l. 32.

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Ka: This letter occurs in the records of this period in a variety of forms ranging from the simple outline of a cross through a dagger shaped symbol to almost the full-fledged form of the present-day letter. In the ninth century the forms that were commonly used are those represented in columns 7, 8, 10 and 11 of Table II, while in the 10th century the more developed form represented by the character in column 9 is the standard type. In the period between the end of the 9th century and the beginning of the 10th century, both the earlier form and the more developed form of the letter seem to have been used without distinction by the Sinhalese scribes, e.g. the *ka* occurring in the Pillar Inscription of Kassapa IV, *E.Z.* III, plate 32 A, ll. 17 and 21 and in the Īrippinniyāva Pillar Inscription, *E.Z.* I, plate 21 A, ll. 5 and 9. The Badulla Pillar Inscription of Udaya III contains two varieties of *ka* but the divergence between the two forms is not very marked. It is noteworthy that the *ka* represented in col. 2 of Table II is used in the Grantha inscriptions of South India in the seventh and the eighth centuries¹⁵.

Ca: There is a marked difference between the *ca* used in the Īṇḍikaṭusāya Copper Plaques and that used during the 9th and the 10th centuries, which is quite similar to the form used in the contemporary Grantha records.

Na: The form of this letter used in the different records of this period remains substantially the same, though when compared with the eighth century forms it seems to have gained in height.

Ba: The general tendency of this letter during this period is to develop into the almost modern form with a flat bottom but without the right arm being brought towards the left. Nevertheless there seems to be some uncertainty as to a standard form and consequently there are divergent forms appearing in one and the same record, as for example in the Viyaulpota Pillar Inscription, *E.Z.* IV, plate 18 A, l. 1 and B, l. 5, Pillar Inscription of Kassapa IV, *E.Z.* III, plate 32 A, l. 25 and l. 32. Cf. also the *ba* occurring in the Velmilla Slab Inscription of Sena III, *E.Z.* III, plate 35 A, l. 4 with that in D, l. 8. Notice also the variety of forms of *ba* occurring in the Badulla Pillar Inscription, A, ll. 1, 3, 6; C, l. 11 and D, l. 25.

Ma: The *ma* used during the earlier part of the period—i.e. during the 9th century and the early part of the 10th century is the closed *ma* which is a direct development of the symbol used as far back as the second half of the second century A.D.¹⁶, the only difference being the circular form of the two loops of the letter. The "open" form of the letter represented by the symbol

15. Sanskrit Inscription of Narendra Śatrumalla, *Epigraphia Indica*, Vol. XII, p. 225; Kurram Pallava Grant, *E.I.*, Vol. XVII, plate facing p. 340; Atiracāṇḍeśvara Cave-Temple Inscription, *E.I.*, Vol. X, plate 1, facing p. 12.

16. C. W. Nicholas, *Palaeographical Development of the Brāhmī Script*, col. 7, second letter, *University of Ceylon Review*, Vol. VII, No. I.

in col. 9 of Table II begins to appear towards the end of the first quarter of the 10th century. "Closed" forms however, are occasionally used side by side with the 'open' form, Giritale Pillar Inscriptions A, ll. 14 and 33 and C, l. 31. The more developed form of the *ma* that was to be the standard type in the Polonnaruva Period is noticed in some of the records of the latter half of the 10th century, such as the Fragmentary Slab Inscription at the Buddhist Railing at Anuradhapura and the Vessagiriya Inscription of Mahinda IV. The persistent appearance of the earlier closed type of *ma* is seen in the Stone Canoe Inscription No. I, *E.Z.* III, plate 9, where this type of *ma* appears alongside of forms that were to become the common type in the twelfth century, *cf.* *ma* occurring in line 1, with those at ll. 10 and 12.

Ra: The doubling of the single line of *ra*, resulted in this letter assuming a number of forms in the 9th and the 10th centuries. In some of the records of the earlier half of the 9th century, the left vertical line meets the main vertical somewhere in the middle, cols. 7 and 8 in Table II. Later this letter assumed an angular form as in the Pillar Inscription of Kassapa IV, col. 9, Table II. A form of *ra* where the two verticals are not connected at the bottom is also occasionally noticed in the records throughout the period, Kiribat Vehera Pillar Inscription, *E.Z.* I, plate 20 A, 3, 6, 9, etc., Giritale Pillar Inscription, *E.Z.* III, plate 10 A, ll. 19, 23; Velmilla Slab Inscription of Sena III, *E.Z.* III, plate 35 A, ll. 1, 4, 10; Badulla Pillar Inscription, *E.Z.* III, plate 5 A, l. 20, C, l. 47, etc., Kaludiya Pokuna Inscription, *E.Z.* III, plate 31, ll. 1, 4, etc., Fragmentary Slab Inscription on the Buddhist Railing, *E.Z.* III, plate 25, ll. 9, 13, 16, etc. and the Polonnaruva Pillar Inscription, *E.Z.* IV, plate 7 A, ll. 3, 14, etc. A fatter form of *ra* with a curved bottom occurs in the Fragmentary Pillar Inscription in the Colombo Museum; Vessagiri Slab No. 1, *E.Z.* I, plate 8, the Giritale Pillar Inscription, *E.Z.* III, plate 10, the Vessagiriya Inscription of Mahinda IV, *E.Z.* I, plates 9 and 10.

La: The more developed form of the *la* beginning with a dot and a curve turned towards the right as indicated in col. II of Table II occurs as early as the middle of the 9th century, e.g. the Viyaulpota Pillar Inscription. A serif occasionally replaced the dot as in B, l. 4 of the same inscription.

Medial Vowels

The system of marking the medial vowels in consonants seems to have become varied in the ninth and tenth centuries, probably because of the multitude of lithic documents set up during the period. Occasional traces of influences from South India can be seen in some of the signs, particularly of the ninth century. The practice of attaching the medial *ā* and the medial *e*, to the body of the consonant is still met with and seems to continue upto

the end of the ninth century with sporadic instances occurring even in later records. For example a considerable number of instances where the medial \bar{a} or the medial e is attached to the consonant can be noticed in the Kiribat Vehera Pillar Inscription of the reign of Kassapa IV. The long medial o occurs in Sinhalese inscriptions for the first time in this period.

\bar{A} : During the period under consideration the medial \bar{a} was represented by a short stroke, slightly curved and opening towards the left. Owing to want of space, sometimes, scribes were obliged to insert the medial \bar{a} above the consonant, the curved stroke facing downwards, as in $k\bar{a}$ in the Viyaulpota Pillar Inscription, *E.Z.* IV, plate 18 D, l. 10. In an inscription of Sena I at Kiulekaḍa, N.C.P., there is an instance of a medial \bar{a} represented by a short horizontal stroke bent downwards forming a right angle, see last letter $k\bar{a}$ in line 1 and $l\bar{a}$ in *E.Z.* III, plate 32 C, l. 7.

I : In letters with two arms stretching upwards such as $\mathfrak{ṭa}$, \mathfrak{pa} and \mathfrak{va} , there seems to have been some uncertainty as to the exact position where the symbol for the medial i should be placed, the symbol being sometimes placed above or attached to the left limb and sometimes to the right limb according to the fancy of the scribe, e.g. \mathfrak{vi} in l. 7 of the inscription at the Vaṭadāge Polonnaruva, *E.Z.* III, plate 34, III.; $\mathfrak{ṭi}$ in l. 1 of the Inscription of Sena I, *E.Z.* III, plate 34, II; \mathfrak{pi} in l. 4 of the Pillar Inscription of Kassapa IV, *E.Z.* III, plate 32 A. Rarely it is found that the medial i sign is placed right above the consonant as in the $\mathfrak{ṭi}$ in the Fragmentary Pillar Inscription in the Colombo Museum, *E.Z.* IV, plate 23 B, line 19. Occasionally the symbol for this medial vowel is written cursorily as a continuation of the consonant, as in the $\mathfrak{ṭi}$ in the Vessagiriya Inscription of Mahinda IV, *E.Z.* I, plate 9, l. 2 and the Stone Canoe Inscription at Anuradhapura, *E.Z.* III, plate 9, l. 11; and \mathfrak{bi} in the Badulla Pillar Inscription D, l. 22.

\bar{I} : The remarks made in connection with the short medial i apply *mutatis mutandis* to the long medial i . It is important to note that the small loop at the right-hand end is not always found in some medial vowels and one has to often depend on the context to decipher such a symbol as the medial \bar{i} .

U : The general remarks made on the medial vowel symbols u and \bar{u} of the 8th century are true of the symbols used during the 9th and the 10th centuries. To denote the medial u sometimes two independent vertical strokes are used instead of two vertical strokes connected at the bottom. This type of medial u is well illustrated in the Kiribat Vehera Pillar Inscription, *E.Z.* I, plate 20 and the Kaludiyapokuna Slab Inscription, *E.Z.* III, plate 31. The Pallava form of the medial u sign is used in some records occasionally as in the Īrippinniyāva Pillar Inscription, D, l. 21 and the Mannār Kacceri Pillar Inscription, *E.Z.* III, plate 6 C, l. 10. In consonants such as \mathfrak{du} , \mathfrak{mu} , \mathfrak{lu} and

hu, the medial sign is inscribed cursively, but sometimes it is inscribed as a separate or semi-detached limb, see *du* in *E.Z.* III, plate 32 B, l. 28; *E.Z.* I, plate 12, l. 13; *E.Z.* I, plate 8, l. 14 and *E.Z.* I, plate 20 A, l. 4; *nu* in *E.Z.* IV, plate 23 B, l. 2 and *E.Z.* I, plate 20 D, l. 9; *hu* in *E.Z.* IV, plate 23 A, l. 5 and *E.Z.* III, plate 10 A, l. 19. In the *lu* occurring in l. 10 of the Stone Canoe Inscription of Anuradhapura, *E.Z.* III, plate 9, the medial vowel sign is attached in the same way as in the case of the other consonants such as *nu* or *pu*. In all other instances the medial *u* sign is marked in a *la* by adding a loop at the bottom.

Ū: The medial *ū* is indicated by the addition of a short vertical stroke to the short medial *u* on the right-hand side. Where in the medial *u* sign the vertical strokes are detached, the medial *ū* sign takes the form of three short strokes. Sometimes, particularly in the 10th century, the additional vertical stroke is attached to the consonant on the left-hand side of the medial *u* sign as in *vū* and *yū* in the Vessagiriya Inscription of Mahinda IV, *E.Z.* I, plate 9, l. 13 and l. 5 respectively. A medial *ū* of a more developed type approaching that used in the next period occurs in the Pillar Inscription of Kassapa IV, *E.Z.* III, plate 32 B, l. 9.

E: In the early stages of this period, as was pointed out earlier, the medial *e* was attached to the consonant. But later, towards the latter half of the 10th century it was inscribed separated from the main letter. In letters such as *ge*, *ne*, *me* and *he* the medial *e* was usually attached to the main letter.

O: The medial *o* does not call for any comments, except to point out that the remarks on medial *ā* and *e* would apply equally well to this medial sign. In the letter *lo* occurring in the Polonnaruva Vaṭadāge Inscription, *E.Z.* III, plate 34, III, A, l. 4, the medial *ē* sign and the *ā* sign are attached to each other and the conjunct sign is placed above the consonant *la*.

Ō: The earliest occurrence of the medial *ō* in a Sinhalese Inscription, is in the Vēvālkāṭiya Inscription of Mahinda IV, *E.Z.* I, plate 29, l. 3.

According to Wickremasinghe the upward stroke attached to the sign of the medial vowel to lengthen it is no other than the final circular stroke used to indicate the medial *ō* in Telugu. "In Sinhalese", says Dr. Wickremasinghe, "the curved stroke seems to have been confounded with the vertical *virāma* sign, owing perhaps to their resemblance to each other. Otherwise it is difficult to account for the use of the *virāma* signs . . . in modern Sinhalese to indicate the long vowels *ē* and *ō*"¹⁷.

Ā, Ā̄: The medial *ā* and *ā̄* occur more frequently during this period than it was in the eighth century when the symbol came into existence. The long *ā* is indicated by employing two small curved strokes opening towards the

17. *E.Z.* I, p. 242.

right. When written cursively this sign takes the form of the modern medial \tilde{a} without the short horizontal stroke.

Conjunct Consonants and Ligatures

By the beginning of the ninth century the practice of writing conjunct consonants in the same plane, i.e. alongside each other, had become well established. Yet, the auspicious word *Svasti*, placed at the commencement of inscriptions of the period, continued to be written in the old way, with the component letters of each conjunct consonant placed one below the other, upto even beyond the beginning of the 10th century. The survival of this practice only in the inscription of this auspicious word *svasti* can well be understood, if it is imagined that the scribes of those times regarded the letters forming this word not as individual letters to be inscribed but as a symbol to be drawn or copied, in the same manner as earlier scribes had done.

The conjunct consonants commonly found in the inscriptions of this period are: *jña*, *ṭṭa*, *ṭṭha*, *ṇḍa*, *ṭta*, *tra*, *ddha*, *ṇga*, *ṇḍa*, *ṇna*, *mba*, *rya*, *ṣṭa*, *ṣṭa*, *sta*, *stha*, and *sva*.

The ligature *nga* seems to be formed of the two letters *ṇ* and *ga*, as is shown in the *ṇga* occurring in the Vessagiriya Slab Inscription of Dappula V, No. I, E.Z. I, plate 8, l. 5. The hook attached to the top of the left arm of *ga* is quite similar to the *ṇ* used in *ṇka* of Iṇḍikaṭusāya Copper Plaque, No. 16. This symbol, it appears, has been extended later to the so-called *saññāka* letters such as *ddha*, *ṇḍa*, *ṇca*, etc.

In the conjunct consonant *ṇḍa*, occurring in the Mannār Kacceri Pillar Inscription, E.Z. III, plate 6 B, l. 2, a trace of the component *ṇa* has been preserved.

The *anunāsika* sign has been used in the word *Vīrāṅkura* in l. 12 of the Vessagiri Slab, No. I, E.Z. I, plate 8.

Virāma: The *virāma* sign comes into more frequent use during the ninth and the tenth centuries owing to certain developments that took place in the Sinhalese language during this period. It is represented by a stroke slanting towards the right and placed above the consonant. But where a letter has a limb moving upwards on the right-hand side such as *ṭa*, the *virāma* is sometimes, particularly in the tenth century, represented by this limb being continued upwards, e.g. *ṭ* in the Kataragama Pillar Inscription, B, ll. 14 and 16. Occasionally the *virāma* takes the form of a curve opening towards the right and attached to the consonant, as in the Giritalē Pillar Inscription, E.Z. III, plate 10 A, l. 10. In letters such as *ṭa*, *pa*, *va* and even *ba* the *virāma* is let

down in the middle of the letter, as in *t*, *d* and *p* in the Irippinniyāva Pillar Inscription, A, l. 18, B, l. 1, D, l. 15, respectively, *v* in *E.Z.* III, plate 28 A, l. 3 and *b* in *E.Z.* III, plate 24 A, l. 7.

The above survey should show that the Sinhalese Script of the ninth and tenth centuries occupies an important place in the history of Sinhalese palaeography. The new symbols such as the *virāma* and the medial *ā* were put to great use during this period and on the whole the script was afforded opportunities to be used in the writing of records as it had never been earlier. The short dedications and grants of the earlier period were replaced and supplemented by long land grants with details of immunities associated with the grant and consequently a large number of Pillar Inscriptions was set up in different parts of Ceylon at this time. Consequent to the general deterioration of the Sangha and the corruption that existed on the monasteries regulations in the form of Tablets had to be set up in monasteries for the guidance of the monks. Two of the earliest extant works, namely the *Siyabaslakara* and the *Dhamṭīyā Aṭṭvā Gūṭapadaya* in Sinhalese, were probably written during this period and perhaps other works too, now lost to us, were produced during these two centuries.

Kassapa V is said to have caused the Abhidhamma discourses to be transcribed on plates of gold and in various ways to have promoted the growth of the Sāsana and the pursuit of learning¹⁸. Original Pali works, such as the Khemappakarāṇa and the Mahābodhivaṃsa are also said to have been composed during the tenth century¹⁹. In monasteries that existed during this period, wardens and custodians were required to keep accounts of income and expenditure in books²⁰.

Thus the social and economic conditions of the time were such as to help the development of a system of writing that would satisfy the demands made on it. As the Sinhalese Script was on the way to becoming a full fledged system of writing, the influence wielded on this script by scripts existing in South India was not so great as it had been in the eighth century when the Sinhalese alphabet was incomplete in many respects. All the influence that the South Indian scripts wielded on the Sinhalese Script can be seen in such letters as *ka*, *ga*, *na*, *ya*, *la* and in some medial vowel signs.

11-13th Century

This period of three hundred years can be generally described as a period of intense religious and scholastic activity. It is indeed undeniable that the occupation of Ceylon by the Coḷas from South India for over (1017-1070) half

18. *E.Z.* I, p. 43.

19. Malalasekera, *The Pali Literature of Ceylon*, pp. 155-157.

20. *E.Z.* I, p. 240.

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a century must have hindered such activities for a time, but energetic and enlightened rulers such as Vijayabāhu I and later Parakramabāhu the Great, Niśsaṅkamalla and Parakramabāhu II did, indeed, their best to make up for all the losses sustained by Ceylon at the hands of South Indian invaders. Moreover each of these rulers was surrounded by a galaxy of pious and learned men like Diṃbulāgala Mahā Kassapa and Sāriputta, who were ever zealous in the promotion of learning. Among themselves these monks were responsible for the writing of a number of commentaries and grammars and original works both in Sinhalese and Pali. Then there were also laymen who were well versed in Sinhalese, Pali and Sanskrit, scholars and men of letters such as Guruḷugomi, Anavamadarśi and Vidyācakravarti by whom were written some of the most cherished literary works of the Sinhalese²¹. Some of the rulers themselves were men of great learning, who amidst arduous affairs of State found sufficient leisure to indulge in literary pursuits. Vijayabāhu I is said to have been the author of a number of books, while Parakramabāhu II is credited with the Sinhalese Epic Poem, the *Kaṣṣiḷuṃṇiṇa* and several other works. The activities of these scholars and writers must undoubtedly have contributed their own share towards the development of the script they used in their writings.

Many of the scholars who lived during this period, particularly during the Polonnaruva period were well versed in Sanskrit, and Sanskrit loanwords began to be used increasingly in Sinhalese writings. Not only the Sinhalese literary works of this period such as the *Dharmapradīpikā* and the *Daham-sāraṇa*, but also the lithic records set up by kings such as Parakramabāhu, Niśsaṅkamalla and Sāhasamalla show the extent to which Sinhalese writers were indebted to the Sanskrit language during this period.

Practical steps were also taken by kings and nobles to popularise the teachings of the Buddha. Various books of the Tripiṭaka and commentaries on important treatises dealing with Buddhist teaching, such as the *Visuddhimagga Tīkā* were copied on ola leaves and distributed throughout the country. Copies of such texts made during the reign of Parakramabāhu II and of later periods have been discovered in temple libraries of Ceylon²².

The considerable volume of writing—resulting from the copying of existing books and the compilation of original works and setting up of a large number of lithic inscriptions together with the preponderance of Sanskrit words in the

21. For an account of the literary activity of this period, see Malalasekera, *The Pali Literature of Ceylon*, pp. 175-237.

22. In addition to the copy of the *Cullavagga* in the Colombo Museum Library, the writer has come across the following :—

Visuddhimagga Tīkā : (1) of the Dambadeniya Period, at the Library of the University of Ceylon, (2) of a period slightly later than the Dambadeniya Period, Arattana Purana Rajamaha vihara, Hanguranketa; *Mahavagga*, Dambadeniya Period (13th century). Vidyālankāra Pirivena, Peliyagoda.

Sinhalese language provided sufficient exercise to the script, in which process it underwent a certain measure of development. But this development did not result in radical changes in the form of the individual letters--it was rather a development that was to be expected as a result of constant use of the script during a course of three centuries. A few letters such as the long initial vowel *i* and *jha* and *ña* made their appearance together with the sign for the medial *au*. Attention may, however, be drawn to the peculiar forms of the *i*, *ka*, *ta*, *na* and *ra* occurring in the Ambagamuva Rock Inscription of Vijayabāhu I.²³

The general tendency of this period seems to be that the letters continue to be rounder and fuller, a tendency that was inevitable when writing had to be done with speed and clarity.

Some letters, however, call for a few remarks.

A: The angular form of the *a* has given place to a round form, almost the same as that used in the present day.

I: In the Ambagamuva Rock Inscription it is like the *ta* of the 10th century. In other records of the period the *i* has developed a loop in the middle, Nos. 14, 15, 16 in Table II.

ī: The first occurrence of the long initial *i* in Ceylon appears to be in the Pritidānakamaṇḍapa Rock Inscription of Niśsaṅkamalla, *E.Z.* II, plate 28, l. 26. This sign seems to have been adapted from the South Indian Scripts. In the Coḷa Grantha Script, the long *i* is represented by a short vertical stroke with two dots on either side²⁴. The Karaḍi Script had a long *ī* represented by an oval shaped symbol with two dots²⁵ on either side, similar to the symbol *ī* in Table II. A symbol for long *i* seems to have been in the Sinhalese alphabet before the time of Niśsaṅkamalla, for the long initial *ī* occurs in a few words in the *Dhampiyā Aṭuvā Gāṭapādaya* of the tenth century.²⁶

U, *E* and *O*: These initial vowel signs have become rounder and fuller, though occasionally archaic forms occur side by side with later forms, as in the Devanagala Rock Inscription of Parakramabāhu I, *E.Z.* III, plate 37. The initial *o* is common in the inscriptions of the ninth and the tenth centuries though it is not represented in Table II²⁷.

Jha and *Ña*: In the Pillar Inscription of Kassapa IV, A, l. 8 occurs a *jña*, which has been adopted in the records of the 11th-13th century to represent *ña*. *Jña*, on the other hand, was represented by a letter similar to the *ja*,

23. *E.Z.* II, p. 203.

24. Ojha, *The Palaeography of India*, plate LXII.

25. *Ibid*, Plate LXXXIII.

26. *Dhampiyā aṭuvā gāṭapādaya*, ed. D. B. Jayatilaka, 1932, pp. 3 and 13.

27. The *gha* is also found in the 10th century, though not represented in Table II.

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Polonnaruwa Slab Inscription of Niśsaṅkamalla at the North Gate of the Citadel, *E.Z.* II, plate 27 A, ll. 24 and 30, and also Polonnaruwa Slab Inscription of Sāhasamalla, *E.Z.* II, plate 32 B, l. 28. As the *ṇa* was represented by a ligature consisting of a *ka* and what appears to be a *da*, the Sinhalese scribes seem to have formed the *jha*—an aspirate, by combining the *ka* and the *dha*, another aspirate. In later times the *ja*—which was used to represent *jṇa* seem to have been transformed by being combined with *da*, on the analogy of *ṇa*.

Ṇa: After the tenth century *na* develops a small circle in the first of its three loops. Another characteristic of the *na* of this period is that generally the middle loop is raised higher than the two others on either side of it, see *na* in the Devanagala Rock Inscription, *E.Z.* III, plate 37 and the Batalagoda-vāva Slab Inscription of Kalyānavatī, *E.Z.* IV, plate 8. But some characters in the Laṅkātilaka Guard Stone Inscription, *E.Z.* III, plate 1, are more akin to the earlier forms of this character.

The *na* occurring in the Waharakgoda Inscription, seems to be more developed than forms occurring in contemporary records²⁸.

Na: The dental *na* has a triangular formation instead of the loop or the thin wedge shaped formation that was common in the eighth, ninth and tenth centuries. Unusual forms occur in the Polonnaruwa Fragmentary Slab Inscription of Sundara Mahādevi, *E.Z.* IV, plate 8 and the Laṅkātilaka Guard Stone of Vijayabāhu IV.

Ma: This is one of the test letters in Sinhalese palaeography. A number of stages in the development of this letter can be traced during the three centuries under review. In the Ambagamuwa Rock Inscription of Vijayabāhu I three distinct types of *ma* can be noticed, A, ll. 1, 8, B, ll. 2, 44; also cols. 12 and 13 of Table II. More advanced forms, as being proper to the thirteenth century, are found in the Cullavagga Manuscript of the Colombo Museum Library and the Visuddhimaggaṭīkā Manuscript of the University of Ceylon Library—both of which belong to the Dambadeniya period. The *ma* illustrated in cols. 15 and 16 of Table II are typical of this period.

Ra: From about the beginning of the twelfth century *ra* tends to become fatter and in the manuscripts of the Dambadeniya period it has a short curved stroke on the top left. Scribes seem to have commenced writing the letter with this stroke as a kind of flourish, which persists even upto the Kottē period, see *ra* in cols. 16 and 19 of Table II.

28. H. C. P. Bell, *Report on the Kegalla District*, plate facing p. 74. Bell assigned this record to the reign of Parakramabāhu VI, but later suggested that it may go as far back as the reign of Parakramabāhu I. Dr. Paranavitana is inclined to assign it to the reign of Parakramabāhu II.

La: During this period *la* has become round, from an elongated form which was the standard type during the preceding three centuries.

Medial Vowels

Ā, E: As a general rule, unlike in the preceding period, the medial vowel signs *ā* and *e* are separated from the consonant, though in very rare instances they may be found attached to the consonant as in *to* of the Polonnaruva Fragmentary Slab Inscription of Sundara Mahādevi, *E.Z.* IV, plate 8, l. 1.

I, Ī: These medial vowel signs are written generally separated from the consonant. But in letters like *ṭi*, *dhī*, *ṇi*, *bi*, *mī*, *ri*, *lī*, *vī* and *ḷi* the vowel sign is often inserted as a continuation of the consonant or attached to it. This feature is to a considerable extent found in the records of the twelfth and the thirteenth century, see, for *ṭi* Batalagoḍa Slab Inscription, *E.Z.* IV, plate 8, line 9; for *dhī* and *dhī*, Batalagoḍa Slab Inscription, l. 4 and Polonnaruva Fragmentary Inscription of Sundara Mahādevi, *E.Z.* IV, plate 8, l. 2; *ṇi* Koṭṭange Pillar Inscription, *E.Z.* IV, plate 9, l. 1; *bi* Devanagala Rock Inscription, *E.Z.* III, plate 37, l. 4; *mī* Koṭṭange Rock Inscription, No. 1, l. 3 and Waharakgoda Inscription, Bell, *Kegalla Report*, plate facing p. 74; *vī*, Saṅgamu Vihāra Rock Inscription, l. 4, Batalagoda Slab, l. 3, Kevulgama Inscription, *E.Z.* III, plate 26 A, l. 3; *lī* Devanagala Rock Inscription, l. 2, Kevulgama Inscription, A, l. 2; *ḷi* Devanagala Rock Inscription, l. 1.

U: The medial *u* sign has become broader than in the ninth or the tenth century; in fact, it has almost become a semi-circle in some instances. The sign is usually attached to the bottom of the consonant, but in letters such as *ju*, *du*, *lu*, it is often detached from the consonant, see *du* in Devanagala Rock Inscription, l. 8 and Batalagoda-vāva Slab Inscription, *E.Z.* IV, plate 8, l. 13 and *lu* in Batalagoda-vāva Slab Inscription, l. 13 and Waharakgoda Inscription, l. 1. Different ways of attaching the medial sign to the consonant are illustrated in *mu* in l. 3 of the Polonnaruva Fragmentary Inscription of Sundara Mahādevi, *du* in l. 4, *mu* and *ṇu* in l. 5 of the Koṭṭange Rock Inscription. The cerebral *ḷu* has assumed a form quite similar to the form used today. It contains though concealed, the medial *u* sign added onto *la*. The medial signs of the preceding period have survived in the Ambagamuva Rock Inscription of Vijayabāhu.

Ū: During the period under review the medial *ū* sign of the earlier period was simplified by adding a loop or a notch in the bottom curve of the medial *u* sign. The sign of the preceding period is noticed in the *dū* in l. 8 of the Devanagala Rock Inscription and *vū* in the Kevulgama Inscription, *E.Z.* III, plate 26 A, l. 16.

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Ē, Ō, Ū: These medial signs call for no comments. The *virāma* sign used in medial *ē* and *ō* is represented by a short vertical stroke even in connection with letters like *ma* and *va* etc., see *dē, mē* and *sē* in the Inscription of Niśsaṅkamalla near the Vān Āḷa, *E.Z.* III, plate 11 A, ll. 8, 15 and 7. The *virāma* sign in letters like *ma* sometimes is formed by continuing the right arm upwards, e.g. *m* in Galpota Slab Inscription, *E.Z.* II, plate 20 C, l. 13.

R: The medial *r* is represented by a sign similar to the sign denoting the *ra* combined with a preceding consonant, but with a pronounced curve or loop at the left end, see *kr* in Slab Inscription of Sāhasamalla, *E.Z.* II, plate 32 A, l. 4, *vr* in the Slab Inscription at the North Gate of the Citadel, *E.Z.* II, plate 27 A, l. 14. In the Grantha Inscriptions of South India the medial *r* was represented by a sign different from the sign used to denote a *ra* preceded by another consonant. In Ceylon, it would appear, the two sounds were not distinguished and therefore there was no difference between the two signs.

An: This medial sign appears for the first time during the Polonnaruva Period, see for example *gan* in the Galpota Slab Inscription, Section B, l. 18.

Ā, Ā̄: These medial signs call for no remarks.

Conjunct Consonants and Ligatures

Conjunct consonants and ligatures are of frequent occurrence as the Sinhalese language had by this time become highly sanskritized. A peculiar formation worthy of note is the ligature *ṃśa* in the Slab Inscription of Sāhasamalla, *E.Z.* II, plate 32 A, ll. 1 and 25.

14-15th Century A.D.

The fourteenth and fifteenth centuries roughly cover what historians call the Gampola Period and perhaps the most important portion of the Kottē Period. During the Gampola Period efforts were made to arrest the decline of Buddhism that set in after the reign of Parakramabāhu II. Important centres of religious and scholastic activity were set up at the Gaḍalādeniya and Laṅkātilaka Vihāras. In the Kottē Period—particularly during its first half, vigorous steps were taken to restore and sustain the *sāsaṇa*. Monastic establishments and centres of learning were newly established, old ones revived and rich endowments were made by Parākramabāhu VI, who surrounded himself with a galaxy of learned men well versed in the Dhamma and languages such as Pali, Sanskrit and even Tamil. Hindu influence from South India was also noticeable in the Court of Parākrama. His patronage was extended to scribes from South India and faint traces of the South Indian Script can be occasionally traced in the documents of the period.

During this period the Sinhalese Script has developed to such an extent as to present no difficulties to any one who can read the Sinhalese Script of the present day. It was precisely for this reason, that it happened that most of the earliest manuscripts that we have in Ceylon today go only as far back as the Kottē Period. The script used in earlier periods is not readily intelligible to the layman, who is not acquainted with the peculiar forms of the old Sinhalese characters, and manuscripts where such a script is found were left discarded to be eaten by moths and white ants.

Fortunately Stone inscriptions and Copper plates, however neglected they may be, have survived truly placing their valuable contents at the disposal of those who are devoted to their study. Palaeographical changes in the Sinhalese Script, much more than the holocausts of books made by Māgha, Rājāsīnha and others have been responsible for the loss forever, of a large number of books written in the Sinhalese Script.

As stated earlier, the Sinhalese Script of the fourteenth and the fifteenth centuries is quite modern in appearance. The letters are round and full, and some letters such as the initial *e*, *ca*, *ḍa*, *ḍha*, *bha* and *sa* have even developed the horizontal stroke so characteristic of the present day script, from an original loop, *cf. sa* in cols. 17 and 20 in Table II with that in col. 19.

A few letters, however, are different from those used in the present day. The cerebral *ṇa* has as yet not developed the diagonal straight stroke found in the modern *ṇa*. In the fourteenth century documents the *ṇa* is hardly different from the forms used a century or two earlier, *cf. ṇa* in cols. 17 and 18 with *ṇa* in cols. 13 and 16 in Table II. The *ṇa* occurring in documents such as the Oruvala Sannasa, *E.Z.* III, plate 2 and the Maḍaval Rock Inscription, *E.Z.* III, plate 27 are more developed, the former being the most developed type of *ṇa* used in the fifteenth century.

The letter *ma* is represented by a variety of forms during these two centuries; the fourteenth century types, occurring in records such as the Gaḍalādeniya Rock Inscription, *E.Z.* IV, plate 10, are represented in cols. 17 and 18 of Table II. There is also a more developed type—cols. 19 and 20 occurring in the Oruvala Sannasa and the Beligala Sannasa, Bell, *Kegalla Report*, plate facing p. 94, and the Saṃyutta Nikāya manuscript of the Kottē period, belonging to the Vidyālaṅkāra Pirivena and the Dādigama Inscription of Bhuvanekabāhu VI, Bell, *Kegalla Report*, plate facing p. 80.

The letter *ra* is represented during this period by four distinct types: 1. a form not dissimilar to a pear, col. 17. 2. a triangular form, col. 18, Table II. 3. the so-called tadpole shaped *ra*, with the right arm continued beyond the point at which it meets the main arm, cols. 19 and 20. 4. the modern form of *ra*, col. 21.

TABLE 1.

	A			B		C		
	1	2	3	1	2	1	2	3
අ a	ඡ	ඡ	ඡ	ඡ ඡ	ඡ	ඡ	ඡ	
ඉ i				ඞ	ඞ	ඞ		
උ u					ෂ			
එ e		ඌ ඌ			ඌ			
ඔ o					ඔ			
ක ka	ඤ	ඤ	ඤ	ඤ	ඤ	ඤ ඤ	ඤ	
ග ga	ඟ	ඟ ඟ	ඟ	ඟ ඟ ඟ	ඟ	ඟ	ඟ	ඟ
ච ca	ච	ච	ච	ච	ච			
ඡ ja	ඡ ඡ	ඡ	ඡ	ඡ ඡ ඡ	ඡ		ඡ	ඡ
ට ta	ඟ	ඟ ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ ඟ
ඩ da	ඟ ඟ	ඟ		ඟ	ඟ	ඟ		
ඳ dha		ඟ						
ණ na	ඟ	ඟ ඟ		ඟ ඟ ඟ	ඟ	ඟ ඟ		
ත ta	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	
ඵ tha				ඟ	ඟ			
ද da	ඟ	ඟ ඟ ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	
ධ dha				ඟ	ඟ	ඟ		
න na	ඟ	ඟ	ඟ	ඟ ඟ ඟ	ඟ	ඟ	ඟ	ඟ
ප pa	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ
ඵ pha								
බ ba	ඟ		ඟ	ඟ	ඟ	ඟ	ඟ	
ම ma	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	
ය ya	ඟ	ඟ	ඟ	ඟ ඟ ඟ	ඟ	ඟ ඟ	ඟ	ඟ
ර ra	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ ඟ	ඟ	
ල la	ඟ	ඟ ඟ	ඟ	ඟ	ඟ ඟ	ඟ	ඟ	ඟ
ව va	ඟ	ඟ ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ
ස sa	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ
හ ha	ඟ	ඟ	ඟ	ඟ ඟ	ඟ	ඟ	ඟ	
ළ la		ඟ	ඟ	ඟ	ඟ	ඟ	ඟ	ඟ

	8 TH CENTURY A.C.						9 TH - 10 TH CENTURY A.C.					11 TH - 13 TH CENTURY A.C.					14 TH - 15 TH C		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ka	𑀓	𑀔	𑀕	𑀖			𑀗	𑀘	𑀙	𑀚	𑀛	𑀜	𑀝	𑀞	𑀟	𑀠	𑀡	𑀢	𑀣
ki	𑀤	𑀥					𑀦	𑀧	𑀨	𑀩	𑀪	𑀫	𑀬	𑀭	𑀮	𑀯	𑀰	𑀱	𑀲
ko		𑀳										𑀴	𑀵	𑀶	𑀷	𑀸	𑀹	𑀺	𑀻
ku	𑀼						𑀽	𑀾	𑀿	𑁀	𑁁	𑁂	𑁃	𑁄	𑁅	𑁆	𑁇	𑁈	𑁉
ka	𑁊	𑁋	𑁌	𑁍			𑁎	𑁏	𑁐	𑁑	𑁒	𑁓	𑁔	𑁕	𑁖	𑁗	𑁘	𑁙	𑁚
ka	𑁛	𑁜	𑁝	𑁞			𑁟	𑁠	𑁡	𑁢	𑁣	𑁤	𑁥	𑁦	𑁧	𑁨	𑁩	𑁪	𑁫
ga	𑁬	𑁭	𑁮	𑁯			𑁰	𑁱	𑁲	𑁳		𑁴	𑁵	𑁶	𑁷	𑁸	𑁹	𑁺	𑁻
gha	𑁼	𑁽					𑁾	𑁿	𑂀	𑂁		𑂂	𑂃	𑂄	𑂅	𑂆	𑂇	𑂈	𑂉
na												𑂊	𑂋	𑂌	𑂍	𑂎	𑂏	𑂐	𑂑
ca	𑂒	𑂓	𑂔				𑂕	𑂖				𑂗	𑂘	𑂙	𑂚	𑂛	𑂜	𑂝	𑂞
cha	𑂟						𑂠	𑂡	𑂢	𑂣	𑂤	𑂥	𑂦	𑂧	𑂨	𑂩	𑂪	𑂫	𑂬
ja	𑂭	𑂮	𑂯	𑂰			𑂱	𑂲	𑂳	𑂴	𑂵	𑂶	𑂷	𑂸	𑂹	𑂺	𑂻	𑂼	𑂽
ha												𑂾	𑂿	𑃀	𑃁	𑃂	𑃃	𑃄	𑃅
na												𑃆	𑃇	𑃈	𑃉	𑃊	𑃋	𑃌	𑃍
ta	𑃎	𑃏	𑃐				𑃑	𑃒	𑃓	𑃔	𑃕	𑃖	𑃗	𑃘	𑃙	𑃚	𑃛	𑃜	𑃝
tha	𑃞	𑃟					𑃠	𑃡	𑃢	𑃣	𑃤	𑃥	𑃦	𑃧	𑃨	𑃩	𑃪	𑃫	𑃬
da	𑃭	𑃮					𑃯	𑃰	𑃱	𑃲	𑃳	𑃴	𑃵	𑃶	𑃷	𑃸	𑃹	𑃺	𑃻
gha	𑃼	𑃽					𑃾	𑃿	𑄀	𑄁	𑄂	𑄃	𑄄	𑄅	𑄆	𑄇	𑄈	𑄉	𑄊
na	𑄋	𑄌					𑄍	𑄎	𑄏	𑄐	𑄑	𑄒	𑄓	𑄔	𑄕	𑄖	𑄗	𑄘	𑄙
pa	𑄚	𑄛	𑄜	𑄝			𑄞	𑄟	𑄠	𑄡	𑄢	𑄣	𑄤	𑄥	𑄦	𑄧	𑄨	𑄩	𑄪
pha	𑄬	𑄭					𑄮	𑄯	𑄰	𑄱	𑄲	𑄳	𑄴	𑄵	𑄶	𑄷	𑄸	𑄹	𑄺
ba	𑄼	𑄽	𑄾	𑄿	𑅀		𑅁	𑅂	𑅃	𑅄	𑅅	𑅆	𑅇	𑅈	𑅉	𑅊	𑅋	𑅌	𑅍
bha	𑅎						𑅏	𑅐	𑅑	𑅒	𑅓	𑅔	𑅕	𑅖	𑅗	𑅘	𑅙	𑅚	𑅛
ma	𑅜	𑅝	𑅞	𑅟			𑅠	𑅡	𑅢	𑅣	𑅤	𑅥	𑅦	𑅧	𑅨	𑅩	𑅪	𑅫	𑅬
ya	𑅭	𑅮	𑅯	𑅰	𑅱	𑅲	𑅳	𑅴	𑅵	𑅶	𑅷	𑅸	𑅹	𑅺	𑅻	𑅼	𑅽	𑅾	𑅿
ra	𑆁	𑆂	𑆃	𑆄	𑆅		𑆆	𑆇	𑆈	𑆉	𑆊	𑆋	𑆌	𑆍	𑆎	𑆏	𑆐	𑆑	𑆒
la	𑆓	𑆔	𑆕				𑆖	𑆗	𑆘	𑆙	𑆚	𑆛	𑆜	𑆝	𑆞	𑆟	𑆠	𑆡	𑆢
va	𑆣	𑆤	𑆥	𑆦	𑆧	𑆨	𑆩	𑆪	𑆫	𑆬	𑆭	𑆮	𑆯	𑆰	𑆱	𑆲	𑆳	𑆴	𑆵
sa	𑆷						𑆸					𑆹	𑆺	𑆻	𑆼		𑆽	𑆾	𑆿
ssa	𑇁						𑇂					𑇃					𑇄	𑇅	𑇆
sa	𑇇	𑇈	𑇉	𑇊			𑇋	𑇌	𑇍	𑇎	𑇏	𑇐	𑇑	𑇒	𑇓	𑇔	𑇕	𑇖	𑇗
ha	𑇙	𑇚	𑇛				𑇜	𑇝	𑇞	𑇟	𑇠	𑇡	𑇢	𑇣	𑇤	𑇥	𑇦	𑇧	𑇨
la	𑇩	𑇪	𑇫				𑇬	𑇭	𑇮	𑇯	𑇰	𑇱	𑇲	𑇳	𑇴	𑇵	𑇶	𑇷	𑇸

DEVELOPMENT OF THE SINHALESE SCRIPT

Medial Vowels

Ā: In letters such as *khā*, *mā* and *vā* the medial *ā* is marked by retracing downwards the right arm of the letter. In other letters, such as *kā*, *nā*, *hā*, the right-hand curve is interrupted at the top and thence medial *ā* sign is drawn downwards. The modern form of the medial *ā* occurs in the Dādigama Inscription of Bhuvanekabāhu VI, Bell, *Kegalla Report*, plate facing p. 80.

I and *Ī*: Unlike in the preceding period the medial signs *i* and *ī* are marked as a continuation of the main letter.

U and *Ū*: The medial signs for *u* and *ū* are like the signs used at the present day, but in *mu*, sometimes the *ū* sign and the *ū* sign are retraced from right arm of the letter. This type of medial is to be found in the Saṃyutta Nikāya manuscript belonging to the Vidyālaṅkāra Pirivena. In letters such as *du*, *nu*, *pu*, *su*, *hu* and *lu*, the medial sign attached to the right flank of the letter somewhere half way up its height. This type of medial *u* is found in the Gaḍalādeṇiya Rock Inscription, *E.Z.* IV, plate 10 and in the Oruvala Sannasa, *E.Z.* III, plate 2.

E and *O*: These medial signs call for no special comments.

Ā and *Ā̃*: In these two signs the short horizontal stroke of present day is missing, otherwise they are quite similar to the signs used in the present day.

R: The *rakāvāṇśaya* is used to indicate the medial vowel *r* probably because there was no distinction made in the pronunciation of medial *r* and *r* preceded by another consonant.

The importance of this period in the palaeographical history of the Sinhalese Script lies in the fact that the earlier Kottē Period, that is the fifteenth century, witnessed the last stage of the development of the Sinhalese alphabet. In the beginning of the next century Ceylon came into contact with Europeans and before long printing was introduced to the country. Schools in the modern sense of the word, were established and the ola leaf and the stylus were replaced by more efficient writing materials and instruments. The consequence of all these was final fixing of the letters of the Sinhalese alphabet, which has not undergone any substantial changes for the last five hundred years.

P. E. E. FERNANDO

Sutta Nipāta : Some Suttas from the Aṭṭhaka Vagga

§ 1. KĀMA SUTTA

THE Kāma Sutta which appears at the head of the Aṭṭhaka Vagga presents many problems. The four suttas consisting of eight stanzas each and called Aṭṭhakas by the compilers follow the Kāma Sutta. Judging from the evidence furnished by Pāli sources alone, the natural inference is that these are the *true* Aṭṭhakas and the vagga including the rest of the suttas was named after them. The possibility of an alternative explanation has been suggested earlier (U.C.R. VI, 4).

As said above (ibid.), these four Aṭṭhakas form one group and the rest of the suttas form the other group (or groups). It is not possible to say whether these four suttas formed the foundation on which the superstructure of the rest of the vagga was built, or whether they formed an ornamental carving on the already existing edifice of the vagga, finally providing those characteristics which supplied the name to the vagga which it now bears. Linguistic evidence may perhaps furnish a clue to its solution.

The stanzas are examined individually below:—

Sn. 766 ; the cognate use in *kāmaṃ kāmayaṃānassa* (v. l. *kāmayaṃānassa*) is old and poetic and is of restricted usage in subsequent literature ; *ce* as a conditional conjunctive as in 767^a is restricted to *gāthā*. The ellipsis in *pāda b* is *metri causa*. The *pāda c* has the ring of an old *gāthā*, specially the emphatic particle used.

Sn. 767 ; The medial ppr. *kāmayaṃānassa* is old *gāthā* from Vedic origin. The gender of *kāma* is uncertain in this sutta : *kāmā* alternates with *kāmāni* (771^b). Of the 5 instances the word occurs in the sutta it is decidedly masc. at 768^a and 769^c and probably masc. in this stanza (though traditional grammarians recognise an *-ā* form in the neut. pl.). It may be either masc. or neut. at Sn. 766^a (acc. sg.), but is neuter at 771^b though the pronoun referring to it seems to recognize it as masc. (but *te* is occasionally used as neut. pl. nom. and acc.). The verb *ruppati* dates back to an " r-dialect " in Vedic. (Cl. Sk. has *l-√lup*, *lump-*). It is most frequently used in this phrase (cp. S. I, 198 ; Thī, 967 ; Sn. 331, etc.) and is not met with in later literature except in grammatical works in which a fanciful etymology is suggested for *rūpa*.

Sn. 768 ; *padā* is a shorter Vedic inst. sg. and *sīro* is the Vedic acc. sg. (historical) as opposed to Pāli *siraṣaṃ* or *siraṃ*. The only term, with a doubtful exception of *abalā* (770^a), to which a technical significance could be

attached is *visattikam*.¹ It occurs 8 times in Sn. viz. Sn. 333^c, 768^c, 857^d, 1053^d = 1054^d = 1067^d = 1085^d = 1087^d. Where the evolution of the idea is concerned this line appears the oldest of them all, for, its use here is non-technical.

Sn. 769; The collective *dvandva* cpds. are old. The word *porisaṃ* belongs to an old stratum (v. l. *parisaṃ*, cp. Sk. *pauruṣaṃ*). It appears as a collective neuter. The contracted form *thiyo* is historical; and the word *puṭhū* is met with in the old language (cp. Jātaka verse).

Sn. 770; According to the Comy. the word *abalā* is technical (*taṇhā*), but its use in any technical sense elsewhere is not met with. The phrase *abalā va naṃ balīyanti* could best be translated as, "being weak themselves (i.e. *kāmā*) they overpower him" (cp. Chalmers' translation). A similar phrase is seen at J. IV, 84 (verse), *vātā balīyanti* (cp. Pv. II, 61). Line c, cp. Dh. 1, Th1, 735. The simile of the ship is continued in 771^d. The v. l. *sivā* may be compared with Dh. 369 (*√śri* ? to depend on). All these instances show that the language of the Kāma Sutta is necessarily very old.

The **metre** of the poem is different from that of many other parts of the vagga (including the four Aṭṭhakas). It is in the Śloka metre like Nos. 7, 10, 15 and part of 16, i.e. (Sn. 814-823, 848-861, 935-954, 955-962). The majority of the suttas is in Triṣṭubh viz. Nos. 2-5, 8, 9, 11, 12, 13, and part of 16 of the vagga (i.e. Sn. 772-779, 780-787, 788-795, 796-803, 824-833, 835-847, 862-877, 878-894, 895-914, 963-975). The Jarā Sutta (Sn. 804-813) and Sn. 834 are in Vaitālīya. It has been emphasised earlier (U.C.R. VI, 1) that metre is no safe guide to the date of a poem in Pāli, for, not all Triṣṭubhs in Pāli date back to a pre-Śloka period. The lack of uniformity in metre in the whole vagga and the fact that essentially most of its suttas are linguistically old lead to the hypothesis that it was formed from already existing older material. Kāma Sutta is one such instance, and the only conclusion that could be drawn (from the analogy of the Ratana Sutta) is that it was one of the last suttas to enter the vagga. On this account it cannot be proved late, for, it may have had an independent existence prior to its introduction here, which itself had taken place at a very early date.

The **theme** of this sutta is a very popular one in Pāli. Instances where monks and laymen are advised to give up *kāma* are too numerous and therefore need not be mentioned here. Although there are many passages in the Canon dwelling on this topic, there is hardly any section which bears a resemblance to this sutta. J. IV, 167-172 contains a set of 9 *gāthās* of which the first is identical with the first *gāthā* here, but the other 8 are different—though in tone and theme they are similar. Again DhA. III, 284 commenting on Dh. 216,² contains a passage similar to this sutta but the words and the

1. cp. Ardhamāgadhi (Jaina) *visottiya* = Sk *viśrotasika*.

2. *Taṇhāya jāyatī soko, taṇhāya jāyatī bhayaṃ,*
taṇhāya vippannuttassa natthi soko kuto bhayaṃ.

tone are quite different. (Also *vide* P.T.S. s.v. *kāma*). The other instances where *gāthās* of this sutta are found repeated are either quotations or examples for commenting viz. Sn. 766-768 are commented at Nett. 69, Sn. 766^{ab} quoted at PsA. 50, Vism. 378 ; Sn. 767-771 commented at Nett. 6 ; Sn. 767 quoted at SA. I, 32, Vism. 576 ; and Sn. 769 quoted at UdA. 120. Sn. 768 is common with Th1, 457, 769^{ab} with J. IV, 240, 771^b with Dh. 123, J. IV, 173, and 771^d with Dh. 369. The lines and *pādas* that are common to Sn. and other works cannot be established as borrowings.

§ 2. THE AṬṬHAKAS

The four suttas following the Kāma Sutta consist of eight stanzas each and hence are called Aṭṭhakas in Pāli. It has already been shown that this fact has led Pāli compilers to designate these suttas by this name and take a further step to extend the name to the whole vagga (U.C.R. VI, 4). The theme of the first of these "octaves" is closely related to that of the Kāma Sutta. In fact the Guhaṭṭhaka Sutta appears as a continuation of it and deals with the same question more comprehensively on a psycho ethical basis. The psychological concepts such as *guhā* and *mohana* (Sn. 772) are common to other schools of contemporary Indian thought. The term *satto* has a special significance, i.e. attached to the *guhā*. The psychological basis of this sutta is further seen in terms like *manāyita*, *amama* (Sn. 777), *ubhosu antesu* (778), *ditṭhasutesu* (778), and *saññāṃ* (779). As parallelisms with the previous sutta Sn. 779^a may be compared with Sn. 771^c, *pariggāhesu* (779^b) with Sn. 769, and Sn. 779^c with Sn. 770 while *appamatta* may be said to refer to the yogic ideal.

On account of the similarity of the themes of Kāma and Guhaṭṭhaka Suttas it may be argued that the Kāma Sutta was placed in front of the Guhaṭṭhaka aiming at an arrangement in accordance with subject matter. This, however, has not met with much success, for suttas 6 and 7 of this vagga bear an appreciable resemblance to suttas 1 and 2 in this respect. If these two were placed immediately after the Guhaṭṭhaka the four Aṭṭhakas would not have remained as a group. In the same way the subject matter of suttas 3, 4 and 5 resembles that of 8, 12, 13 and the discourse in 9. Instead of these suttas following one after the other they occur in three separate groups showing on the one hand the incompleteness of the classification, and the partial adherence to a method of arrangement according to external form, on the other.

The three suttas following Guhaṭṭhaka deal with the various aspects of one and the same theme. They indicate the Buddha's attitude to philosophical speculation. The Duṭṭhaṭṭhaka points out the position of a *muni* who is beyond all censure and has become steadfast by casting off (*√dhu*) all

philosophical views (*ditṭhi*). The Suddhaṭṭhaka ridicules the notion of attaining purity (*suddhi*) through metaphysical speculation and emphasises the importance of remaining aloof from biases and limitations. The Paramaṭṭhaka declares that philosophical disputation should be given up and that a true and steadfast sage needs no philosophical views to lean on.

In all these suttas, as well as in Nos. 8, 9, 12 and 13 and numerous other old Suttas of the Canon the futility of metaphysical speculation is emphasised. The Buddha's attitude towards the subject is made evident in them. From a historical examination of the dominant ideas in them it could be inferred that they represent a very early stratum in Buddhist thought. The excessive indulgence in metaphysical subtleties of later Buddhism, specially that of Mahāyānic schools affords a clear contrast to the ideas and sentiments of these suttas. The main theme is the relinquishment of philosophical dogmas but other references to fundamental tenets of early Buddhism (e.g. Sn. 790^c, 792^{cd}, 793^a, 794^{cd}, 800^c, 801^{ab}, 803^{bd}, etc.) are clearly indicative of the spirit of early Buddhism that these suttas breathe. Disputation is condemned. It is not a knowledge of metaphysics that is sought after, but a life of selfless wandering free from attachments to the states of being (777^{cd}) and unmeasured by sense-impressions (778^d). The essentials on which early emphasis lay are summarised in Sn. 779. The *muni* is not sullied by "graspings" (*pariggaha*), he crosses the "flood" by the realisation of *saññā* (SnA. 518 *nāmarūpa*), has uprooted the dart, wanders diligently and yearns for neither world. Again, the *muni* has no *khila* (stubbornness—Sn. 780^c), he is serene and released and does not proclaim his attainments (783^{ab}). He has no theories which he has evolved and fabricated (784^a) and is not one whose peace is dependent on mutability (784^d). He is a *dhona* (he who has cast off everything) and is independent in every way (Sn. 786). He has reached that state when he has no views either to approve of or disprove any dogmas Sn. 787^{cd}.

Many of the **terms** used in this section to describe the *muni* (both epithets and phrases) have a philosophical tone. They are in some instances technical, but the majority of them were yet to develop into technical expressions with definite values. The Commentary attempts to explain *khila* as *rāgādi khila* which shows a definite development of the term by the time of the compilation of SnA. (cp. Sn. 973^b, 212^c, 477^c 540^d, 1059^d and 1147^d). The only instances where it has a technical significance are Sn. 540 and 1147. A gradual process of crystallisation is to be seen in *ussadā* at Sn. 783^d. Its philosophical import is evident in all the occurrences of the term in Sn. viz. 515^d, 855^d, 624^b and 920^d. The usual seven *ussadā* are given at Nd1, 72. The term *dhona* in the Aṭṭhaka Vagga is used with reference to the shaking off of *ditṭhi* (Sn. 786^c, 813^a and 834^c); but at Sn. 351^b it is an epithet of the Buddha. Nd1, 77

3. SnA. 523 comments on *attaṃ nirattaṃ* as: *attaditṭhi vā ucchedaditṭhi vā natthi*.

explains it as *paññā* while the Commentator gives the interpretation of his day. The wider application seen usually in Commentaries (viz. SnA. 542, J. III, 160) is not to be met with in Sn. for it is solely used to signify the abandonment of *diṭṭhi*. Equally abstract and semi-technical in use is the term *upaya* (also *anūpaya*—Sn. 787^{ab}, 797^c, 786^d) but it has not found much favour in subsequent literature. One of its cpds. *rūpūpaya* occurs at S. III, 53, etc. cp. SnA. 522, *taṇhāditiṭṭhi upayānaṃ dvinnam abhāvena anūpayo . . .* *csaṃ dvinnam bhāvena upayo*. cp. SnA. 558 *upagantabbatṭhena upayaṃ rūpādisu ekaṃ pi dhammaṃ upēyya*. In both these instances the Commentator interprets from the level of his day, and the context does not justify the inclusion of *taṇhā* in SnA. and NdI, 82.

The two phrases *kuppa-paṭicca-santiṃ* (Sn. 784^d) and *attaṃ nirattaṃ* are also interesting. The Commentator has seen too deep into the meaning of *kuppa-paṭicca-santi* when after a long comment he explains it as ; *tañ ca ānisaṃsaṃ tañ ca kuppatāya ca paṭiccasamuppannatāya ca sammutisantatāya ca k.p.s. saṅkhātāṃ diṭṭhiṃ nissito va hoti* (cp. NdI, 74-75). The phrase "characterising the peace which is dependent on mutability" describes the *santi* of him who sees virtues in himself on account of his speculative theories. E. M. Hare translates it as "Calm on quaking built". It is in fact no technical term. The Comy. is again seen giving the interpretation of its day to *attaṃ nirattaṃ* where it speaks of *attadiṭṭhi* and *ucchedadiṭṭhi* (SnA. 523 and NdI, 82) taking *atta* to mean *ātman* and *nirattaṃ* the BSk. *nairātmyaṃ* which is a later development. (*attaṃ* < *āttam*). The universe of discourse here is *diṭṭhi* (philosophical views); and hence *attaṃ* and *nirattaṃ* cannot refer to anything else but the acceptance or rejection of *diṭṭhi*. In the light of the subsequent elaboration of the *anatta* doctrine which was a *sine qua non* in the earlier teaching, this word has undergone a complete transformation.

That the term *upadhi* (*sopadhika* Sn. 789^c) has a definite connotation even in Sn. can be seen from the various instances in which it occurs. Sn. 728 makes it quite clear.⁴ Also cp. Sn. 1050^{cd} 1051, 33^c, 34^c, 546^a, 572^a, 364^a, 33^d, 34^d, 642^b, 374^c, 1057^b, 1083^b and 992^f. All these occurrences show that the term has undergone a definite crystallisation, and there is no doubt that the concept belonged to the earliest stratum of Buddhist thought.

4. *Upadhīnidānā pabhavanti dukkhā*
ye ke ci lokasmiṃ anekarūpā ;
yo ve avidvā upadhiṃ karoti
punaḥpunaṃ dukkhaṃ upeti mando ;
tasmiṃ pajānaṃ upadhiṃ na kayirā
dukkhassa jātipabhavānupassī.

(Those diverse forms of sorrow which prevail in the world arise basing their origin on the material substratum. Indeed, the indolent fool who nurtures his material substratum repeatedly brings himself to sorrow. Therefore should he who discerns and comprehends the origin of the arising of sorrow not accumulate his substratum).

SUTTA NIPĀTA: SOME SUTTAS FROM THE ATTHAKA VAGGA

The phrase, *ditṭhe sute sīlavate mūte vā* (in what is seen and heard, in ascetic practices and holy vows and in what is cognised—Sn. 790^b) is a curious combination of functions of the senses on the one hand and external practices on the other. In this context *ditṭha*, *suta* and *mūta* (*mūta* from $\sqrt{\text{man}}$, I.E.* $\sqrt{\text{mā}}$) imply the sights, sounds and other undefined sense impressions respectively which are considered auspicious and pure (cp. Sn. 790^a *aññāto suddhim āha* : and NdI, 87ff. ; SnA. 527 comments, *mūte ca upphavvāna micchāññāna*). Both Nd. and SnA. are not clear about *mūta*. This idea occurs no less than 20 times in Sn. in similar words viz. Sn. 790^{ab} (= 797^b = 887^a), 793^{ab} = 914^{ab} (793^b = A. II, 25), 798^{cd} (c = S. I, 203), 797^{ab} (^b = 790^b, 887^a), 887^{ab}, 910^{ab}, 1079^{bc} (= 1080^{bc} = 1081^{bc}), 1082^{cd} (= 1083^{cd}), 788^b (= 789^a), 802^{ab}, 897^d, 778^d (= 250^d). In all these instances the psychological basis of the reference to sense-impressions is hidden by the nature of the context which either introduces or implies *sīlabbata* along with it. It is clear that all these references do not merely speak of the functions of the sense organs which produce the result but mention the result itself. Yet, Sn. 1086^a and 1122^{cd} seem to bring out the psychological aspect clearly viz. *idha ditṭha-suta-mūta-viññātesu* (in things that are seen, heard, sensed and perceived), and

*na tuyhaṃ aditṭham asutam-mutam vā
atho aviññātam kiñcanam atthi loke*

(there is nothing that is not seen, heard or sensed or else not perceived—cognised—by you in this world) as at D. III, 134, 232, It. 121. In Sn. 897, *ditṭha* and *suta* the functions of the two primary senses only are mentioned as at Sn. 778^d, 250^d, 1079^b, 1080^b and 1081^b, although they are intrinsically connected with *sīlabbata*. The same idea is expressed at Sn. 839^a and 1078^a as well as Sn. 84^c // 839^{ab}. Although these references are similar to each other in meaning, *ditṭha* and *suta* (and *mūta*) in combination with *sīlavatāni* mentioned or implied, are essentially different from *ditṭha-suta-mūta-viññāta* in their fundamentals. The latter has a more universal application and is primarily meant to describe the functions of the senses (*mūta* representing those of the three senses not mentioned under sight and sound, and *viññāta* that of *manas*).

The early Buddhist emphasis on the detachment from both *puñña* and *pāpa* is seen at Sn. 790^c. It is aptly described as *attañjaho* in line *d* i.e. abandoning whatever is “grasped” (*ātta* cp. 800^a, 787^c not as at NdI, 90 *attaditṭhiyaho* nor SnA. 527 *attaditṭhiyā yassakassaci vā gahaṇassa pahīṇattā attañjaho*, both of which being interpretations of a later level). The idea of “crossing over” which is so frequent in the early Pāli literature (*oghaṃ* $\sqrt{\text{tr}}$ or *pāraṃ* $\sqrt{\text{gam}}$; vide the introduction to the Pārāyana, U.C.R. VI, 4) is found here as at Dh. 412, 370, ThI, 633 Sn. 212, 473, etc. in its special reference to *saṅgam* (attachment). A *saññasatto* (Sn. 792) is one who is

led by his senses; lit. "attached to percepts". Both SnA. 527 and NdI. 93 speak of him as the opposite of *vidvā*. The idea of a *śīmātiga brāhmaṇa* is common to all stages of Buddhism cp. also *tādi*, etc.

A comparison and analysis of all these ideas shows that they belong to the earliest strata of Buddhism. As pointed out earlier, some of them are in an early stage of development while others have undergone a certain degree of crystallisation. It is also noteworthy that some of these concepts as *upayo* which have not undergone any development here are scarcely found in later works or other works which may claim equal antiquity with Sn. On the other hand, elaborate theories and extensive treatises are to be found in later literature with regard to the more important of these concepts which developed fully under favourable conditions. A mere study of the ideology of these "Aṭṭhakas" and a careful examination of where the emphasis is laid in the poems reveal their very antiquity.

Linguistic data which form a very important factor for the determination of the age of the ballads confirms what has been arrived at by means of other criteria. In fact, in the case of these poems, linguistic data conclusively establish their antiquity. It is very significant that all the old forms in these suttas point to some Vedic dialect of Pāli rather than to the standard Canonical Pāli. The language in general reflects a form of early Pāli. It is not proposed to examine every stanza individually. However, a brief survey will make the position clear. In this short section of 32 stanzas there are four full Vedic double forms with a dialectical (perhaps Māgadhī) influence viz. *cutāse* Sn. 774^d, *avītataṇhāse* 776^d, *sitāse* 791^a, and *paṭicchitāse* 803^b. There are 9 ppr. forms ending in -am and -āna viz. *tiṭṭham* 772^b, *jappam* 773^d, *caram* 779^c, *abhiḥjānam* 788^c, *vadānam* 789^d, *pamuñcam* 791^d, *paribbasāno* 796^a, *anupādiyāno* 800^a, and *anūdiyānam* 802^c. There are some words which are restricted to the Aṭṭhaka Vagga only e.g. *paribbasāno* at Sn. 796, 878, 880, and 895, three of which occur at the beginning of a sutta (i.e. except 880). There are archaic verbal forms as *jaññū* Sn. 775^b, *pāvā* 782^{bd}, and *pāva* 789^d. The middle base *kubba*-is preferred to *kar*-; *kubba* occurs at Sn. 777^d, 778^c, 781^c, 790^d, and 794^d; *kur*-at 796^b and *kar*-at 800^b and in *purekkharonti* at 803^a, 794^a and *purakkhata* 784^b. There are a few other unusual verbal or secondary forms as *suppahāyā* 772^d, *duppamuñcā*, *aññamokkhā* 773^b, *avadāniyā* 774^b, *pariññū*, *accayeyya* 781^a, *svātivattā* 785^a, *niccheyya* 785^b, 801^d, *vikappayeyya* 793^d, 802^d, *nissayeyya* 798^d, *kappayeyya* 799^a and *anūḥaneyya* 799^c. There are also two medial Optative 3 sg. forms, *sikkhetha* 775^a, and *maññetha* 799^d which are characteristically *gāthā* forms.

The syntax too points to an old idiom. There are at least 10 instances of the construction with the historical locative of relation in varying shades of meaning viz. at Sn. 772^a, 774^a, 776^{cd}, 777^d, 779^b, 783^b, 785^{bc}, 786^b, 787^a,

and 793^a. All these are sufficient data to prove the antiquity of this section of the Aṭṭhaka Vagga.

§ 3. JARĀ SUTTA

This sutta consists of 10 stanzas in Vaitāliya metre. The only other Vaitāliya verse in the vagga is Sn. 834. The theme of the poem is the transiency and impermanence of life. One is advised to leave the household life "seeing that no worldly possessions are eternal and that everything is in a state of flux". Emulating the sages—*munayo* Sn. 809—the wise man is exhorted not to form any egoistic attachment to anything conceived as "one's own" since everything is left behind at death—Sn. 806. Death leaves behind only the memory of the dead.

The above ideas in Sn. 804-809 closely conform to the title of the sutta. Although the last four stanzas—Sn. 810-813—appear somewhat foreign to the sutta under its present title, all of them except the last stanza are connected with Sn. 809; and they fit in with the general theme on account of the similarity of ideas. Sn. 810^d is the logical extension of 805^d, and similarly 811^c is closely associated with 809^a. The sage is called a *dhona* in the concluding stanza; and in this respect 813^a may be compared with 786^{ab}, line *c* with 824^b and the whole stanza with 790, 793-795, 914, etc. The line *d*, *na hi so rajjati no virajjati*, breathes the same air as the concluding lines of the Suddhaṭṭhaka.

*na rāgarāgī na virāgaratto
tassāḍha n'atthā param uggaḥṭam.*

The uniformity of *metre* suggests that the poem as a whole dates back to the same period. The theme of the poem which is in praise of the *munī*-ideal is common with other poems of great antiquity in Sn. Sufficient has been said already on this topic and it not proposed to discuss it here.

The *language* of the sutta calls for particular attention. In discussing the stanzas individually any striking points in ideology and doctrine will be pointed out. Sn. 804 the ablative in *oraṇ vassasatā* represents the old idiom. *miyyati* (lines *bd*) = impersonal medial cp. Sk. *mriyate*. An absolutive in adverbial function is seen in *aticca* (l.c); cp. *upādāya gacchati*, *samādāya rakkhati*, etc. The form *jarasā* can be explained in two ways; 1. inst. sg. of a noun *jaras*, an extension of the *-as* declension (besides *jarā* f. and *jara* m. or n.); 2. *-sā* adverbial suffix from the analogy of the adverbial inst. of *-as* nouns. The whole stanza is rather elliptical. Grassmann, Wörterbuch zum Rgveda points out 6 examples from the Vedas where *jara(s)* is masc. cp. also the inst. at Rv. X. 85. Thus this is an old form in Sn. going back to a Vedic dialect. Sn. 805 cp. *Mbh.* XII, 805 and *Aṣṭa Prajñā Pāramitā* 254. l. *a*, cp. 777^a, 809^b. Of the 17 occurrences of *mamāyati* or its verbal derivatives, as many as 9 are found in the Aṭṭhaka Vagga. *Mamāyita* is clearly the earlier

word signifying egoism. The word *atta* is not so frequently used in this sense in Sn. The opposite idea *amama* occurs 5 times in Sn. whereas *anatta* occurs only twice viz. *anattani* (756^a) and *anattagarahī* (913^d). Of these two instances only *anattani* (756^a) has some connection with *amama*, but as this occurs in the relatively late Dvayatānupassanā Sutta it may be surmised that *amama* stood for *anatta* and *mamatta* for the parallel idea *atta* or *attadittthi*. The evidence at hand is insufficient to establish whether this really was the germ of the more comprehensive *anatta* theory of Buddhism. Another word which is in popular use in this *vagga* is *pariggahā* (five out of the seven occurrences in Sn. are in the Aṭṭhaka Vagga—viz. 393^c, 470^b, 809^c, 805^b, 871^b, 872^b, and 779^b). The use of this word is necessitated by the subject matter, and it is semi-technical. It is evident that the central theme is the transiency of life and the impermanence of worldly possessions. The title *Amama Sutta* or *Anagāriya Sutta* would equally fit the poem, for specially the last few stanzas emphasise this aspect. The cpd. in l.c. appears to be an expression of popular origin. Sn. 807^a. *supinena* (with *samprasāraṇa* and *svarabhakti*). The consonant group *sva-* more frequently undergoes *samprasāraṇa* than assimilation in Sn. There are six instances of *samprasāraṇa* (viz. *supatī* 110^c, *supitena* 331^b, *supina* 293^d, 360^b, 807^a, and 927^a) as contrasted with one instance of assimilation (*soṇā* 675^c) and one instance of *svarabhakti* and consonantal hardening (*supāṇā* 201^a). Metrical exigencies may have promoted this tendency, but the scarcity of assimilated forms may be significant as pointing to a particular dialect. l.c. *piyāyitaṃ* cp. *mamāyitaṃ*. Sn. 808^d: *akkheyyaṃ* has the appearance of a deliberate pun (i.e. from *ā + √khyā* or *a + √kṣi*). SnA, 543 comments, *Nāmamattaṃ eva tu avasissati*. (The mere name remains); Nd 1, 127, *Rūpagataṃ, vedanāgataṃ, saññāgataṃ, saṅkhārāgataṃ, viññānāgataṃ pahīyati . . . nāmaṃ evāvasissati. Akkheyyanti akkhātum, kathitum, bhaṇitum, dīpayitum, voharitunti, nāmaṃ evāvasissati akkheyyaṃ*. (All that pertains to the fivefold aggregates perishes . . . only the name remains. *Akkheyyaṃ* means to name, to speak, to address, to elucidate and to employ in usage; and only the name remains to be spoken of (or understood). Also vide P.T.S., s.v. *ā + √khyā*. It is quite probable that this is a gerund from *a + √kṣi* (vide Pāṇinī, VI, 1, 81), i.e. *kṣayya > kheyya*, cp. *śayyā > seyyā*. The Bṛhadāraṇyaka has the same idea (Bṛh. III, 2, 12), *Yājñavalkyete hovāca, yatrāyaṃ puruṣo mṛiyate, kim enaṃ na jahātī ti, nāmety anantaṃ nāma* (Yājñavalkya said: when a man dies what is it that he does not give up?—It is the name, for it is everlasting). Also cp. Maitri Upaniṣad II, 4, 6, 28 *ananto' kṣayyaḥ* (endless and imperishable) which seem to suggest that Pāli *akkheyya* may be from *a + √kṣi*.

SUTTA NIPĀTA : SOME SUTTAS FROM THE AṬṬHAKA VAGGA

The Aṭṭhaka Vagga contains 9 out of the 11 references to the word *jantu* in Sn. The parallel word which is more frequently used in Pali is *satta*⁵ (10 times in Sn.) and *jantu* has almost gone out of use in later Pāli (s.v., P.T.S.). It is only in one doubtful instance that *satta* (as referring to creature, being) occurs in the Aṭṭhaka Vagga i.e. *satto guhāyaṃ bahunā-bhicchanno*—Sn. 772^a (from \sqrt{srj} ?).

Sn. 810. In line *a* is found one of the numerous instances where the word *bhikkhu* is used in the same connotation as *muni*. The word *bhavana* in line *d* is apparently a synonym for *bhava*. It occurs again at Sn. 685^b, 937^c and once in prose. **Sn. 811, 812:** The points of interest in these two stanzas are the similes in 811^d and 812^{ab}, which are in fact the same simile stated in different words. Along with 812^b may be cited,

padumaṃ va toyena alippamānaṃ (Sn. 71^c cp. 213^c),
nopalippati toyena, toyena padumaṃ yathā (ThI, 701^{cd}),
puṇḍarikaṃ yathā vaggu toyē na upalippati (Sn 547^{ab}),
puṇḍarikaṃ va toyena saṅkhūre nopalippati (ThI, 1180^{ab});

and with Sn. 711^d and 812^a the following :

vāri pokkharapatte va (Dh. 401, It. 84, Sn. 625),
udabindu va pokkhare (ThI, 665^b),
bhikkhu yathā pokkhare vāribindu (Sn. 392^d),
udabindu va pokkharā (Dh. 336^d, ThI, 401^d) and
vāribindu va (M. III, 300, J.VI, 595).

Sn. 811^{ab} is significant as showing the detachment of a *muni* (cp. 813^d already discussed).

The general tone of the Jarā Sutta is archaic. It definitely represents the old *gāthā*-language. The thought in the *sutta* like that in many other old pieces is representative of the times. The Salla Sutta may be cited as a close parallel to this poem in ideology. The only difference is that it deals primarily with death while *amama* is emphasised in the Jarā Sutta. All the available internal evidence is in support of its early composition, and it is quite probable that it is as old as the four Aṭṭhakas.

§ 4. MĀGANDIYA SUTTA

The Māgandiya Sutta is a dialogue of 13 stanzas in Triṣṭubh metre. The context of the *sutta* is the occasion of Māgandiya's futile effort to give his daughter away in marriage to Buddha. The story is narrated in detail at SnA. 542-544. There is also a dialogue between the Brahmin Mākandika and the Buddha at Divy. 519-520 which is incorporated in a prose and verse mixed narrative (Divy. 515-521). The two narratives at Divy. and SnA. agree in general, but differ in details. In the Pāli Commentary the Buddha

5. cp. Raṭṭhapāla Sutta (M. II, IV, 2) : *satto pana gacchati yena kammam* where *satta=jantu*.

foresees the good fortune of the *brahmin* Māgandiya and his wife to attain *arahatship* (*arahattaphalūpanissaya*) and contrives to meet the brahmin. In Divy. it is a chance meeting. The names of Mākandika's wife and daughter are given as Sākalī and Anupamā respectively in Divy., but Pāli gives only the feminine of the family name as Māgandiyā. Divy. contains a full description of the conversation between the brahmin and his wife about their future son-in-law, and introduces a new character, an old man who eagerly offers to marry Anupamā when the Buddha refuses her hand. Mākandika refuses his offer and he vomits hot blood and dies. It states nothing further of the Mākandikas while the Pāli mentions the attainment of *arahatship* of both husband and wife. (SnA. 548).

The dialogue at Divy. 519-520 which consists of 5 stanzas shows some resemblance to a few corresponding stanzas in Sn. viz. st. 1 roughly corresponds to Sn. 835, st. 2 has some bearing on Sn. 836, and stanzas 4 and 5 together are somewhat parallel to Sn. 845. The ideas in st. 4^{ab} are similar to those at Sn. 845^{ab}, though they are not identical. The simile at stt. 4^{cd} and 5^{ab} is the same as at Sn. 845^{cd}. The idea expressed at Sn. 845^{ef} is found at st. 5^{cd}. The only difference between them is that in Divy. these two stanzas are uttered by the Buddha about himself, whereas in Sn. it is the *muni* who is described.

Again, Sn. 835 speaks of the three daughters of Māra as actual persons and not as mere personifications of ideas in an allegorical representation as at Sn. 436 (Padhāna Sutta) where *arati* and *taṇhā* are mentioned as the second and fourth *senās* of Māra. Ragā is to be identified with *kāmā* in Sn. 436. In the Māgandiya Sutta the three daughters of Māra are actual persons. In the Divyāvadāna their names are not mentioned, and the stanza runs,

*dṛṣṭā mayā Mārasutā hi vipra, tṛṣṇā na me nā'pi tatḥā ratiśca
chando na me kāmāguṇeṣu kaścit, tasmād imāṃ mūtrapurīṣapūrnām.*

Although the daughters are alluded to, *taṇhā* (*tṛṣṇā*) and *rati* are qualities mentioned along with *kāmāguṇeṣu chandas* (cp. *methunasmiṃ chando*). Judging from this it is very difficult to state definitely which version preserves the older tradition. In both cases the personification seems to have been long forgotten and Māra is conceived as an actual being who had three daughters.

Judging from the abruptness of the change of topic and the transition from one subject to another in Sn. 836^{cd}, it may be argued that Sn. 835, 836 are versifications of an old prose introduction. It is also a plausible explanation that the basis of the *sutta* is Buddha's encounter with Māgandiya. This is common to both versions, and without falling into the error of presuming that the BSk. version is older than the Pāli, on account of its brevity, a common source may be assigned to both. From the evidence of Divy. any suggestion that the two opening stanzas were foreign to the *sutta* is

SUTTA NIPĀTA: SOME SUTTAS FROM THE ATTHAKA VAGGA

untenable. Moreover, there is no difference in metre and language between Sn. 835, and 836 and the rest of the poem, and by no means are these two stanzas an interpolation of a compiler.

Yet, a closer comparison of the two versions shows that the main theme of the Pāli poem is not found in BSk. Māgandiya Sutta praises the *muni* who does not enter into disputes and has inward peace whereas the central topic in BSk. is Mākandika's quest for a son-in-law. The first three stanzas deal directly with it and the last two are given as Buddha's own words of self-praise. These stanzas lack the detached and impersonal refined note struck in the stanzas of the Pāli in which the Buddha praises the *muni* when invited to speak about himself (Sn. 836^{cd}). It is evident that Sn. 837-847 can stand as an independent sutta without the two opening stanzas (Sn. 835-836). This leads to the inference that probably the Pāli sutta represents a fusion of two independent ballads of which Divy. 515-520 forms only one component, affording a parallel to Sn. 835-836.

N. A. JAYAWICKRAMA

The Scope of the Rule in Tillekeratne v. Abeyasekere

THE Privy Council decision in *Tillekeratne v. Abeyasekere* 2 N.L.R. 313, as explained in later cases, established the principle that, where there is a single gift to a number of persons burdened with fideicommissum in favour of their descendants, the testator may be taken by implication to have intended that, on failure of descendants of one or more of such persons after their interest has vested in them, the other persons or their descendants were substituted to take the interest of the former (see T. Nadaraja, *The Roman-Dutch Law of Fideicommissa*, p. 298 second paragraph and p. 304 note 32). The principle has been recognised as applying to fideicommissa created by deed as well as by will (*op. cit.* p. 304 note 32).

Although *Tillekeratne v. Abeyasekere* and many of the cases in which its ratio decidendi was explained happened to involve instruments which created recurring fideicommissa extending beyond the first generation of fideicommissaries, there is nothing in the judgement in *Tillekeratne v. Abeyasekere* and in the cases which explained its principle which restricts that principle to recurring fideicommissa and excludes the application of that principle to non-recurring fideicommissa (i.e. fideicommissa which determine on the property coming into the hands of the first set of fideicommissaries).

But in *Fernando v. Rosalina Kunna* 27 N.L.R. at pp. 505-6, per Maartensz, J., it seems to have been suggested for the first time that in the latter type of case where non-recurring fideicommissa were involved the principle in *Tillekeratne v. Abeyasekere* was inapplicable. This suggestion was made obiter, being unnecessary for the decision of the case, which was in effect based on the similarity of the wording used in the instrument in that case with the language in the earlier case of *Perera v. Silva* 16 N.L.R. 474 and in *Carron v. Manuel* 17 N.L.R. 407.

Now the judgements in *Perera v. Silva* (which were simply followed without much comment in *Carron v. Manuel*) cannot be regarded as satisfactory, in so far as the chief reason given for holding that the fideicommissum in respect of the half share that went to the institutes Lucia, Maria and Ana was not a single joint fideicommissum was that the opposite construction would result in the gift-over to the fideicommissaries being postponed till the death of all three institutes. But this is not a necessary consequence of holding that the fideicommissum was a joint fideicommissum to which

the principle in *Tillekeratne v. Abeyasekere* applied : for it was quite possible to have held that the fideicommissum was a joint one to which the principle in *Tillekeratne v. Abeyasekere* applied (in other words, that if Lucia, Maria or Ana had died without children, the share of the deceased would not have formed part of her estate but would have gone over to the other institutes or their children) whilst holding that the gift-over to the institutes' children, if they died leaving children, took place piecemeal at the respective deaths of each institute. In other words, the question when the gift-over on an institute's death to his children takes place is quite separate from the question whether, on failure of children, the creator of the fideicommissum did or did not intend a gift-over to the co-institutes or (if they are dead) to their children.

It may be added that *Perera v. Silva* and *Carron v. Manuel* (the judgments in which do not suggest any difference between recurring and non-recurring fideicommissa) were dissented from by Bertram, A.C.J., in *Usoof v. Rahimath* 20 N.L.R. 225 at p. 241, where he said " I confess [that . . . I am unable to follow much of the reasoning of the judgements in these two cases" and he dismissed them as " simply . . . decisions upon the special terms of a particular will ".

It is submitted that the suggestion in *Fernando v. Rosalina Kumma* 27 N.L.R. 503 that the principle in *Tillekeratne v. Abeyasekere* applies only to recurring fideicommissa cannot be accepted. On principle, there is no reason why the rule enunciated in *Tillekeratne v. Abeyasekere* should not apply to non-recurring fideicommissa also (see T. Nadaraja, *op. cit.* p. 304 note 32 at pp. 304-5). The principle in *Tillekeratne v. Abeyasekere* not being an absolute rule of law but being merely a principle of interpretation based on the presumed intention of a testator or donor (see *Usoof v. Rahimath* 20 N.L.R. at p. 229, per Bertram, A.C.J., and *Carlinahamy v. Juanis* 26 N.L.R. at p. 135, per Bertram, C.J.), it must be a question of intention in each case whether a gift to co-beneficiaries burdened with fideicommissum is a single joint fideicommissum or a bundle of separate fideicommissa. If this " initial test", which " is the basis of the whole doctrine " in *Tillekeratne v. Abeyasekere* (to use the words of Bertram, C.J. in *Carlinahamy v. Juanis* 26 N.L.R. at p. 136), is found to be answered in the former sense (i.e. as creating a single fideicommissum), it can be admitted that the intention of the testator or donor was that on the failure of the line of fideicommissaries of one institute, the other institutes (or their fideicommissary substitutes) should take, and it should be immaterial whether the fideicommissaries in each line are themselves burdened with further fideicommissa or not (i.e. whether the fideicommissum is recurring or non-recurring). Nearly all the reported

cases in which the principle in *Tillekeratne v. Abeyasekere* was applied happened to involve recurring fideicommissa, but that is no reason why the principle should be restricted to recurring fideicommissa.

In *Usoof v. Rahimath Bertram*, A.C.J., in formulating the principle in *Tillekeratne v. Abeyasekere*, used language (e.g. "and the interest of these fiduciaries is burdened with obligations in favour of *children* in the next generation", lines 24-26 of p. 229 of 20 N.L.R.) that *prima facie* covers even non-recurring fideicommissa, although he elsewhere reverts to language appropriate to recurring fideicommissa since the facts of the case before him involved a recurring fideicommissum. Again in *Sandenam v. Ayamperumal* 3 C.W.R. 58 at pp. 60-1, Schneider, J. regarded the principle in *Tillekeratne v. Abeyasekere* as applicable to a case of non-recurring fideicommissum. In that case there was in effect a gift to L, M and I in undivided shares with a prohibition on alienation and a gift-over on their death to their legitimate issue (the alternative gift-over on failure of issue being from our present viewpoint immaterial). Schneider, J. inclined to the view that there was a joint single gift to L, M and I and that the principle in *Tillekeratne v. Abeyasekere* was applicable, although it will be noticed that the fideicommissum, not extending beyond the issue, was a non-recurring fideicommissum.

For the above reasons it is submitted that *Fernando v. Rosalina Kunna* should not be regarded as of authority in so far as it suggested limiting the applicability of the principle in *Tillekeratne v. Abeyasekere* to recurring fideicommissa only.

T. NADARAJA

Brāhmaṇas in the Early Sinhalese Kingdom

IN his paper on "Pre-Buddhist Religious Beliefs in Ceylon¹", Paranavitana recounted all the historical references² to Brāhmaṇas in the Chronicles up to the time of Devānaṃpiya Tissa. He also gave the substance of 2 early inscriptions³ in which Brāhmaṇas had donated caves to the Saṅgha. He stated that "the Brāhmaṇas held an honourable place in society in those early days" and some of them "were in sympathy with the Buddhist movement". A brief summary of the historical evidence which he adduced is as follows:—Vijaya, Paṇḍukābhaya and Devānaṃpiya Tissa had Brāhmaṇa Purohitas: Paṇḍukābhaya was instructed in the art of kingship and assisted in his campaign against his uncles by the rich and learned Brāhmaṇa, Paṇḍula, and his son Canda: the Brāhmaṇa, Tivakka or Tavakka, was given a prominent place in the ceremonies connected with the arrival and planting of the Bodhi Tree: the kings endowed Brāhmaṇa shrines in the City: and the Brāhmaṇas were generally people of influence and wealth.

The historical and epigraphical evidence is now continued to the end of the 3rd century A.C.

2nd and 1st Centuries B.C.

The Brāhmaṇa, Kuṇḍalī, a merchant, lived near Cetiyaṇṇabata (Mihin-talē) during the reign of Eḷāra, but, though resident in Eḷāra's territory, was a supporter of the Sinhalese Royal family then represented by Kākavaṇṇa Tissa, ruler of Rohaṇa⁴. Girikālī, the daughter of the Purohita of Kākavaṇṇa Tissa, entered the Bhikkhuṇī-sāsana⁵. A young and powerful Brāhmaṇa named Tissa of Rohaṇa raised an insurrection against Vaṭṭagāmaṇi Abhaya in B.C. 103. The *Mahāvamsa* states that Damiḷas from South India invaded Ceylon at the same time, defeated Vaṭṭagāmaṇi Abhaya and then slew the rebel Tissa, and reigned here for 14 years⁶. But the Pāli Commentaries give a different and far more vivid and harrowing account of this period which they style "the Brāhmaṇatissa peril"⁷. What claim to kingship the Brāhmaṇa

1. J.R.A.S. (C.B.) (*Journal of the Royal Asiatic Society, Ceylon Branch*), Vol. 31, No. 82, pp. 302, 321 to 323.

2. M. (*Mahāvamsa*) 7, 44; 10, 20 to 26, 102; 11, 20; 19, 27, 54, 61; and *Mahābodhi-vamsa* 136.

3. At Sassēruva and Yāngala.

4. M. 23, 23 to 29.

5. D. (*Dīpavamsa*) 18, 21.

6. M. 33, 37 to 41.

7. E.H.B. (*Early History of Buddhism in Ceylon*, by E. W. Adikaram) 73 to 77.

made, who his adherents were, and what support he relied upon from a people already predominantly, if not wholly, Buddhist to maintain himself on the throne at Anurādhapura, are not stated.

In B.C. 44, a Brāhmaṇa named Niliya, the Purohita, was made King by the infamous Queen Anulā and reigned 6 months⁸. In the reign of Bhatikābhaya (B.C. 22-A.C. 7), the King appointed a Minister, the Brāhmaṇa Dīghākārāyana, to settle a dispute which arose between the fraternities at Mahāvihāra and at Abhayagiri as to the interpretation of a Vinaya rule⁹.

Nearly all the early inscriptions which contain references to Brāhmaṇas belong to the 2nd and 1st centuries B.C. Four have been published, namely, those at Mihintalē¹⁰, Riṭigala¹¹, Molagoḍa¹² and Ranagiriya¹³, the last-named being the latest in date. The revised text of the Mihintalē inscription is:—(4) BAMAṆA PUTA (RE)TAHA LEṆE ŚAGAŚA. The texts of the Sassēruva and Yāngala inscriptions referred to by Paranavitana are, respectively:—(5) BAMAṆA VAŚAKAṆI PUTA ŚOMADEVAŚA CA GA . . . and (6) BAMAṆA KAŚIKA PUTA VIJITAŚENAŚA LEṆE. Two of the earliest inscriptions containing references to Brāhmaṇas are at Piccandiyāva¹⁴ and the King named in them may be identified, on palaeographical grounds, with Devānapiya Tissa:—(7) MAHARA(JA)ŚA DEVANAPIYAHA ACIRIYA BAMAṆA GOBUTIYA LEṆE, and (8) MAHARAJAŚA DEVANAPIYAŚA GAMINI TIŚAŚA VEJA BAMAṆA GOBUTIYA LEṆE ŚAGAŚA. The Brāhmaṇa, Gobuti, was both Teacher and Physician of the King. Another, somewhat mutilated, inscription at the same site reads:—(9) . . . BAMAṆA PUŚAKA PUTAHA PUNAŚUGUTAHA LEṆE. The Bambaragala inscription¹⁵ is equally interesting:—(10) POCANI RAJA NĀGAYAHA JAYA BAMAṆA KOJA(RA). JITAYA UPAŚIKA DATAYA LEṆE. Nāga Aya, the “King of the east” has not been identified: he was married to the daughter of a Brāhmaṇa and she was a Buddhist upaśika and the donor of the cave. Cave inscriptions at Dambulla, Diyabātṭa¹⁶ and Tōrava Mayilāva¹⁷ read respectively:—(11) PARUMAKA BAMAṆA TIŚAHA LEṆE ŚAGAŚA DINE, (12) ŚAGAŚA BAMAṆA MEGALI PUTA PARUMAKA MAJIMA

8. *M.* 34, 24 to 26.

9. *E.H.B.* 88. Adikaram points out that the dispute was probably not of a doctrinal nature.

10. *A.S.C.A.R. (Archaeological Survey of Ceylon, Annual Report)*, 1911-12, 99, No. 8.

11. *E.Z. (Epigraphia Zeylanica)* I, 145.

12. *C.J.S. (Ceylon Journal of Science, Section G)*, II, 227, No. 754.

13. *C.J.S.* II, 225, No. 747.

14. *A.I.C. (Ancient Inscriptions of Ceylon, by E. Muller)*, 84.

15. *A.S.C.A.R.* 1935, para 42; with it, read *A.I.C.* 34.

16. *A.I.C.* 48.

17. 7 miles west of the 39th m.p. on the Kurunāgala-Anurādhapura road.

PUTA DATAHA LEṆE, and (13) BAMAṆA GA(DA) BOJIKE PARUMAKA ŚOṆAHA LEṆE. Two inscriptions at Haṇḍagala Vihāra¹⁸ read :—(14) BAMAṆA ŚUGA PUTA PUŚADEVAŚA . . . LEṆE ŚAGAŚA, and (15) PARUMAKA BAMAṆAHA PUTA DATAKAYAGUTAHA LEṆE (Symbol) ŚAGAŚA. Inscription No. (15) is assignable, palaeographically, to the end of 1st B.C. or beginning of 1st A.C. The remaining inscriptions are in Rohaṇa and their texts are as follows :—(16) Situlpavuva¹⁹, BAMAṆA VACA PUTA . . . (LE)ṆE ; (17) Kandēgamakanda²⁰, PARUMAKA BAḍIHARAMITA PUTA PARUMAKA BAMAṆA UTIYA LEṆE AGATA ANAGATA CATUDIŚA ŚAGAŚA ; (18) Kōṅgala²¹, BAMAṆA ATIMATAKAHA LEṆE ; and (19) Maṇḍagala²², BAMAṆA ŚUMAHA LEṆE ŚAGAŚA.

All the grants recorded in these 19 inscriptions were donations of caves to the Saṅgha. Therefore, the Brāhmaṇa donors patronised, if they did not practise, Buddhism. The Ranagiriya inscription is a grant by an individual who was the son of a Brāhmaṇa and the brother of a Thera : the Thera, therefore, was himself a Brāhmaṇa by birth, and he and his brother, the donor of the cave, were apparently converts to Buddhism. This record of a Brāhmaṇa having become a Buddhist monk, and the Bambaragala inscription of a Brāhmaṇa's daughter who was a Buddhist upaśika, lend strong support to the probability that all the Brāhmaṇa donors named in the inscriptions had, similarly, adopted the Buddhist faith.

The Purohita and his assistants at the Royal court were there, primarily, it may be assumed, for the performance of those necessary rites of abhiśeka, marriage, birth and death in which Buddhist monks played no part. Hence, they were indispensable to the King, and their learning and skill would have been relied upon by the monarch in high affairs of state.

Six Brāhmaṇas or their sons named in the inscriptions held the rank of Parumaka (Chieftain), the highest degree of nobility below royalty. The inscriptions supply corroboration of the Chronicles and Commentaries that in the 2nd and 1st centuries B.C. Brāhmaṇas continued to hold high positions and to possess wealth. The titles of some of them, Purohita, Minister and Parumaka, and the absence of titles in others suggest that they had their own social gradation : all were not nobles, but their general social level was high.

1st, 2nd and 3rd Centuries A.C.

The Kirinda and Tissamahārāma inscriptions, the texts and translations of which are given in Paranavitana's paper on "Brāhmī Inscriptions in

18. *A.I.C.* 96.

19. *A.I.C.* 16 ; *A.S.C.A.R.*, 1934, para 75.

20. *C.A. (Ceylon Antiquary)*, 111, 208, 209.

21. In Pānama Pattu, Batticaloa District.

22. *A.S.C.A.R.*, 1934, para 77.

Sinhalese Verse²³ are unique in their subject-matter. As he has pointed out, the 2 inscriptions are contemporaneous and the script resembles that of the Maha Ratmalē inscription²⁴ of Mahādāṭhika Mahānāga (A.C. 7-19). One may go further and say that it resembles the script in the inscriptions of Kuṭakaṇṇa Tissa (B.C. 44-22) and his successors upto Āmaṇḍagāmaṇi Abhaya (A.C. 19-29), and that there is little room for doubt that the Uvaraja Naka or Nāga of the inscriptions is identical with the later King, Mahādāṭhika Mahānāga, the Uvaraja and successor of the pious Bhāṭikābhaya (B.C. 22—A.C. 7). The interesting fact which these 2 inscriptions disclose is that an heir-apparent of the Sinhalese royal family at the end of the 1st century B.C. or beginning of the 1st century A.C. was converted to Buddhism. The "false beliefs" which he abandoned are not specified, but they could scarcely have been heterodox doctrines within Buddhism itself. The only other religious influence under which a Sinhalese prince is likely to have come was that of the Purohita and the other Brāhmaṇas at the Court, and the probability is that the "false beliefs" of the Uvaraja Naka were Brāhmaṇical beliefs. The Chronicles give us to understand that from B.C. 247 onwards Buddhism was the firm and only faith of the Sinhalese monarchy and people, and the accuracy of that assertion is not impugned by this solitary instance of one dissident Prince professing other beliefs and then recanting them in favour of Buddhism. This singular event is not recorded in the Chronicles or Commentaries, but it was apparently of sufficient local importance for the recantation to be publicised by the engraving of 2 inscriptions, one at the Uvaraja's seat and the other at the Vihāra where the conversion occurred.

References to Brāhmaṇas in the Chronicles and epigraphs of the 1st, 2nd and 3rd centuries A.C. are very scanty. An inscription of the 1st century at Sassēruva mentions the village Bamaṇagama. The list of fields mentioned in the 2nd century inscription at Kiralagala²⁵ includes one named Mahabamaṇa vi-keta. The Dakkhiṇa Vihāra inscriptions, probably of the reign of Kaniṭṭha Tissa (167-186), refer to a grant by the grandson of the minister, Maha Bamaṇaya. The only reference in the Chronicles is to the destruction of 3 Śivaliṅga temples, one in the village of the Brāhmaṇa Kalanda, by King Mahāseṇa²⁶.

The paucity of historical and epigraphical references to Brāhmaṇas in the first 3 centuries A.C. as compared with the last 3 centuries B.C. is striking and suggests a decline in their numbers, power and influence. The office of Purohita continued long beyond the 3rd century A.C. The Dakkhiṇa

23. *J.R.A.S. (C.B.)*, Vol. 36, No. 98.

24. *E.Z.* I, 61.

25. *A.I.C.* 54.

26. *M.* 37. 41; *J.R.A.S. (C.B.)*, Vol. 31, No. 82, p. 327.

BRĀHMAṆAS IN THE EARLY SINHALESE KINGDOM

Vihāra inscription furnishes evidence that a Brāhmaṇa held office as minister about the middle of the 2nd century. The destruction of Brāhmaṇical temples by Mahāsenā is not conclusive evidence that decline reached the point of fall in his reign, because Mahāsenā practised severe religious intolerance against the Mahāvihāra fraternity and would have had little compunction in persecuting non-Buddhists : in this respect he was singular, and it is possible that the Brāhmaṇas resumed their customary religious freedom in his son's reign.

The Chronicles and epigraphs establish a wide regional distribution of the Brāhmaṇas, in the Northern, North-central and North-western Provinces, and in the Mātalē, Kandy, Batticaloa and Hambantōṭa Districts. The Brāhmaṇical temples destroyed by Mahāsenā appear to have been on the East coast. There is evidence that some Brāhmaṇas, like the rest of the community, adopted Buddhism as their religion in the early Buddhist period, but whether this was general in their case or not, is conjectural.

C. W. NICHOLAS

Some Aspects of Christian Missionary Enterprise in the Early British Period (1796-1830)¹ VI.

DURING the first thirty years of the nineteenth century the majority of the people of Ceylon were as they are today Buddhists and Hindus. There were many temples scattered throughout the land and much temple-worship. In certain places the ancient religions were undoubtedly influential. In Kandy the priests had immense power over the people and here as in other places there were centres of Buddhist learning. In Bishop Heber's *Journal* reference is made to a Buddhist "College" in Kandy adjoining the lake "where forty priests live under strict discipline, chiefly occupied in religious duties and in teaching".^{1a} The Christians could not hope to outnumber the Buddhists and Hindus at the pace they were working. But they were making an important contribution to the religious and social history of the island.

The work of the Christian missionaries bore fruit chiefly in the coastal districts where they had their main centres of Evangelism. The statistics available, however, vary considerably with regard to the number of Christians in the island. The Revd. James Cordiner in his *Description of Ceylon* stated that in 1801 there were 342,000 Christians other than Roman Catholics who were still more numerous. Dr. Claudius Buchanan in his *Christian Researches* stated that the total Christians amounted to about 500,000. In an early report of the Calcutta Auxiliary Bible Society a letter quoted from the Hon. and Revd. T. J. Twisleton, dated May 1st, 1811 says that the Christians numbered about 250,000 while the Roman Catholics, who were counted separately, were about 85,000. In a letter dated April 22nd, 1813 from the Revd. George Bisset to the Revd. Thomas Thompson of Calcutta he states that, according to a census of Christians apparently conducted by the various churches in respect of their own members, 'the Protestants are about 146,000 and the Roman Catholics about 84,000'^{1b}. There were many who having professed the Reformed faith for material advantage in the earlier period now went back to Roman Catholicism, Buddhism or Hinduism. The Roman Catholics had their own organisation to look

1. See also *University of Ceylon Review*, Vol. VI, No. 2, pp. 135-141.

1a. Bp. Reginald Heber: *Narrative of a Journey etc.*, Vol. II, (London: John Murray, 1873), p. 165.

1b. *University of Ceylon Review*, Vol. VII, No. 2, p. 14. See also *A History of the Diocese of Colombo*, Ed. by F. L. Beven (Colombo: *Times*) pp. 377-381.

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after their members. The government appears to have neither interfered with nor helped them. The Revd. James Cordiner, an Anglican priest, had the general oversight of the pastoral ministrations of other Christians as Chaplain to the Colombo garrison and of the educational work in the Colony as Principal of Schools² and he was succeeded in 1804 by the Hon. and Revd. T. J. Twisleton and called Senior Colonial Chaplain³. Both Cordiner and Twisleton had been appointed when the Hon. Frederick North was Governor. After the arrival of Sir Robert Brownrigg as Governor (1812), the Revd. George Bisset, the Governor's brother-in-law, was appointed an additional Chaplain. The British Colonial Chaplains ministered mainly to the European congregations and the Ceylonese Chaplains, appointed later, assisted them in ministering to Ceylonese Christians and in superintending the work of the proponents, catechists and schoolmasters. One of the earliest of these Ceylonese Chaplains was the Revd. Christian David⁴ who had come from India and had worked for a time as a proponent and another was the Revd. Johan Henricus de Saram who had been educated at Oxford⁵. Other proponents were Johannes Perera, John Isaac Perera, W. M. Franciscus, W. M. Malleappah, Brian Ribeira, Peter Pandittasekera and Frederick David.

The first Bishop of the Anglican Communion to visit Ceylon was the Rt. Revd. Dr. Thomas Fanshaw Middleton who became the first Bishop of Calcutta in 1814. During his visit in 1816 Sir Robert Brownrigg had expressed a desire to see the island under the Bishop's ecclesiastical jurisdiction as up to that time it was under the care of the Bishop of London. With the approval of the British Government the Anglican ecclesiastical jurisdiction of Ceylon was therefore placed in Bishop Middleton's charge and raised to the status of an Archdeaconry when the Bishop paid his second visitation in 1821 during the temporary administration of Sir Edward Barnes. At the same time the Bishop appointed the Hon. and Revd. T. J. Twisleton as first Archdeacon of Colombo⁶. The letters patent appointing the first Archdeacon of Colombo state: "Whereas no sufficient provision has been made for the supply of persons duly ordained to officiate as Ministers of the United Church of England and Ireland, within the said Territories, and there is no competent authority for the care and direction of ecclesiastical affairs, and our aforesaid subjects are deprived of some offices prescribed by the Liturgy and usage of the Church as

2. *University of Ceylon Review*, Vol. VII, No. 2, p. 137.

3. *University of Ceylon Review*, Vol. VII, No. 2, p. 139.

4. *University of Ceylon Review*, Vol. VII, No. 2, p. 138.

5. He was at Exeter College as a Gentleman Commoner from 1818. *Oxford University Calendar*, 1818, p. 162; 1819, p. 164; 1820, p. 167. Bp. Heber refers to him in his *Journal* and says that he was married to an English lady. Heber: *Narrative*, Vol. II, p. 152.

6. Le Bas, C.W.: *The Life of the Rt. Revd. T. F. Middleton*, (London: Rivington: 1831), Vol. I, pp. 330-341, 345-350; 355-6; 360-1; 394-6; 471-3; II, pp. 207-219.

aforesaid, by reason that there is no Bishop or Archdeacon residing or exercising jurisdiction and canonical functions within the same :

For remedy of the said inconvenience and defects, we have determined to constitute within the aforesaid Territories an Archdeaconry subject during our pleasure to the jurisdiction, spiritual and ecclesiastical, of the Bishop of Calcutta for the time being. And we do hereby erect, found, and constitute one Archdeaconry in and over the British Territories within the said Island of Ceylon, to be styled the Archdeaconry of Colombo, such Archdeaconry to be subject and subordinate during our pleasure to the jurisdiction of the said Bishop of Calcutta as aforesaid. The Archdeacon is to be instituted by the Bishop of Calcutta in the exercise of his episcopal jurisdiction and functions, according to the duty of an Archdeacon by the ecclesiastical laws of the Realm of England. The Archdeacon shall be Commissary of the Bishop and his successors, and shall exercise jurisdiction in all matters according to the duty and function of a Commissary, and during a vacancy of the Archdeaconry the duties shall be performed by some discreet minister in priest's orders, who shall be nominated by the Governor of Ceylon ''.

Besides his ecclesiastical duties, Archdeacon Twisleton also had the responsibility of officiating as the First Member and President of the Court of Justices of the Peace and Sitting Magistrate for the Town, Fort and District of Colombo. Since it was stated later that ' he executed for many years the laborious office of Sitting Magistrate of Colombo with the greatest assiduity and to the general advantage of the people ' it appears that this office was not exactly a sinecure. Bishop Middleton was succeeded at Calcutta in 1823 by Bishop Reginald Heber and in 1825 he made a visitation to Ceylon an informative account of which he has left in his Journals⁷.

The government ecclesiastical establishment was not composed of the Anglican Chaplains ministering to their people alone but also included the clergy of the Dutch Reformed Church. The Dutch Consistory which was the governing body of the Church continued to function under the Revd. J. D. Palm formerly of the London Missionary Society and latterly appointed to the Dutch Church at Colombo⁸. But even with all the Anglican and Reformed Chaplains available there were still many more evangelists needed.

Bishop Heber wrote to Sir Wilmot Horton, of this scarcity of chaplains considering the needs of the island^{8a}. More chaplains were slow in coming

7. Bp. R. Heber : *op. cit.* : Vol. II, pp. 148-171 ; 243-246 ; George Smith : *Bishop Heber*, (London : Murray, 1895), pp. 275-291 : *C.M.S.R.* : 1826, p. 109. *Dictionary of National Biography*, article on Bp. Heber by Canon Overton.

8. *University of Ceylon Review*, Vol. VII, No. 2, p. 138.

8a. Mrs. R. Heber : *Life of Reginald Heber*, (London : Murray, 1830), Vol. II, p. 181.

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but in the meanwhile missionaries helped very much with their services⁹. The proponents who worked directly under the chaplains were also of real assistance although sometimes they were a hindrance to genuine missionary work when they lost a sense of their calling and acted merely to get quick results and encomiums from their superiors.

The missionaries received help and encouragement in their work from several British residents who were Christians. Sir Alexander Johnstone, who had already played an important part in encouraging the missionary societies in England to send workers to Ceylon assisted the missionaries considerably in the early days. He was described by the Revd. Dr. Claudius Buchanan, who met him in Ceylon, as "a man of large and liberal views, the friend of learning and of Christianity". Sir Alexander's contribution to the social and moral welfare of the island is an interesting subject for research and should throw a great deal of light on the history of this period¹⁰. Besides Sir Alexander, there were other prominent residents like Lord Molesworth¹¹ who is mentioned as one who helped the Wesleyan mission by the Revd. W. M. Harvard. Harvard also refers to Sir Ambrose H. Gifford who was like Sir Alexander, first an Attorney-General and later Chief Justice of the island¹² and to T. N. Mooyart, the sub-collector of Jaffna who aided their work¹³. William Tolfrey, a civil servant and no mean scholar, was among the first to help in the translation of the Scriptures into Sinhalese¹⁴. Some of the highest government officials supported the work of the Auxiliary of the Bible Society which was founded in 1812¹⁵. Lady Brownrigg helped educational work by establishing a school for Tamil girls in Colombo where the children were taught by a Ceylonese clergyman¹⁶ and Mrs. W. C. Gibson organised an orphanage with facilities for industrial training in Galle¹⁷.

9. *University of Ceylon Review*, Vol. VII, No. 2, p. 140; Vol. VII, No. 3, pp. 198-207; Vol. VII, No. 4, pp. 269-271.

10. *University of Ceylon Review*, Vol. VII, No. 2, pp. 140-1; The Revd. Dr. C. Buchanan: *Christian Researches in Asia*: (London, 1849), pp. 43, 47; *C.M.S.R.*, 1815, p. 574; W. M. Harvard: *A Narrative*, pp. 258, 278, 373, 385.

11. *University of Ceylon Review*, Vol. VII, No. 4; W. M. Harvard: *op cit*: pp. 148-150, 229-231.

12. *Dictionary of National Biography*: article on Sir Ambrose Hardinge Gifford, by G. Barnett Smith; *Ceylon Calendar*, 1815, p. 40.

13. W. M. Harvard: *op. cit*: pp. 161-2; *Ceylon Calendar*, 1815, p. 61; *Methodist Magazine*, 1815, p. 315.

14. Le Bas: Vol. I, pp. 367-9; W. M. Harvard: *op. cit*: p. xlvii; p. 294; C. Buchanan, *op. cit*: p. 46; Le Bussche: *op cit*: p. 113; *B.M.S.P.A.*, Vol. VI, pp. 223-4.

15. *The Ceylon Calendar*, 1815, pp. 56-7 contains a list of officers and members of the Bible Society Committee. W. M. Harvard: *op. cit*: p. 386; De Bussche, *op. cit*: p. 113; *S.P.C.K.R.*, 1816, p. 52.

16. Le Bas, Vol. I, p. 333; De Bussche, pp. 112-3.

17. Le Bas, Vol. II, p. 219; J. Selkirk, p. 488; Mrs. Harvard: *Memoirs*, p. 78; Bp. Heber. *Narrative*, Vol. II, p. 149; T. Robinson: *The Last Days of Bp. Heber*: (London: Jennings, 1830), pp. 52-58.

Ceylonese headmen too helped the work of the missionaries. It was a chief headman who welcomed the Revd. Robert Mayor to Baddegama and invited him to establish a mission station. Mayor wrote: "The Mudaliyar is desirous that I should reside there, and offers to raise a subscription for the erection of a Church and School"¹⁸. Other missionaries too speak of the help given by the headmen. Some of the headmen were Christians but there were many who were so only nominally. The Revd. James Cordiner writing to the Hon. Frederick North on August 28th, 1800, refers to a place where "the Mudaliyars and Muhandiramms were all under the name of Christian, but they do not send their children to school nor do they teach them anything at home nor do they attend [church] on Sundays to hear the scriptures"¹⁹.

There is no doubt that some of these people still hoped by professing Christianity to gain the favour of government and the benefit of education for their children in Christian schools but had little interest in Christianity as a religion. The missionaries as a rule discouraged easy baptism specially at a time when they knew that the people would be willing to be nominal adherents of 'the faith of the government' for selfish reasons. The Revd. Joseph Knight reported once: "These people (i.e. those among whom he worked in Jaffna) are, at any time, ready to be whatever government may wish them to be. A government order and government agents employed for this purpose (i.e. getting congregations) would be as likely to collect 2,000 or 3,000 persons together in the present day as in the time of Baldaeus²⁰ and a law to require the natives to conform to Christian Baptism in order to secure the right of inheritance would prove as effective now as then; while they would still adhere to their superstitions and retain all their prejudices of idolatry"²¹. The Revd. Benjamin Ward of the same society also commenting on the people's frame of mind, said: "I might get an order from the Modeliar or Headman for them to attend, in which case the church would be filled"²². But no such orders were, of course, obtained nor would they have been sanctioned by the British Government although there were Ceylonese proponents under government employment who, for their personal gain, treated church membership lightly and in order to provide statistics for their superiors employed strange methods of 'baptism' which the missionaries condemned.

The Revd. James Selkirk, another missionary of the Church Missionary Society, complained of the particular system of mass baptism adopted by

18. The Revd. J. W. Balding: *One Hundred Years in Ceylon*, (Madras Diocesan Press, 1922), p. 108.

19. Colonial Office Papers, C.O. 54.4: Cordiner to North, Aug. 28, 1800. De Bussche, p. 107: *C.M.S.R.*, 1819, pp. 193-4.

20. *University of Ceylon Review*, Vol. VI, No. 4, p. 284.

21. *C.M.S.R.*, 1820, p. 200.

22. *C.M.S.R.*, 1819, pp. 193-4.

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some of the proponents: "I refused today to baptize some children that were brought to the school on a wedding occasion, and took the opportunity, when the party were all assembled, to tell them whom we, as ministers, are willing to baptize, and what kind of persons we shall invariably require as sponsors for children, and witnesses for adults. The system that has been pursued by the government native preachers, called Proponents, has been a very bad one, and has tended more than anything else to lower Christianity in the eyes of the natives. The Proponents have sometimes baptized two or three hundred infants and elder children at a time, while making the circuit of their district, and have taken anyone they might find as sponsors. Persons going along the road, and never seen by the parties bringing the children till that moment, have often been called in to be godfathers and godmothers; persons as ignorant of Christianity as if there were no such religion in the world, and who perhaps have never been baptized themselves. Indeed, almost all the Buddhist priests in the maritime provinces are persons who have been baptized in their infancy. Now, when the people of Cotta and all the surrounding villages are beginning, since the death of the late government proponent, under whom they were placed, to come to us for the baptism of their children, we think it right to be cautious whom we admit as sponsors, and I am always in the habit of talking to parties at christenings on the duty of godfathers and godmothers, and by this means our determination will become better known among them, and we may hope that a more correct knowledge of what baptism is will be spread around us, and that we shall by-and-by become connected with these villagers in the relation of ministers and people, more than has hitherto been the case. I have also drawn up a small tract on the subject, entitled "Plain instructions to the Sinhalese People on Christian Baptism". It is now in the printer's hands, and will be ready soon, when I hope and trust it may be extensively useful"²³. This was written on July 4th in 1838. That the problem was faced by the missionaries even earlier than this is seen from Bishop Heber's Journal wherein mention is made that, when replying to his clergy on various matters on which his advice had been sought, he gave careful instructions on the strict terms on which baptism should be administered²⁴.

The policy of the British Government at this time is revealed not only by the fact that it maintained a religious establishment through which it ensured ministrations to the Christians and superintended educational work but also by the fact that it supported the Buddhist hierarchy and their work in the Kandyan districts. The terms of the Kandyan Convention of March 2nd, 1815 were such that "the religion of Budhoo . . . is declared inviolable and its

23. The Revd. James Selkirk: *Recollections of Ceylon*, (London: Hatchard, 1844), p. 515 f. *cp.* also *The Baptism of an Adult*, p. 513 f.

24. Bp. R. Heber: *op. cit.* Vol. II, p. 156-7.

rights, ministers and places of worship are to be maintained and protected". The Proclamation of November 21st, 1818 stated that "all the ceremonies and processions of the Budhoo religion shall receive the respect which in former times was shown them" but that "the peaceable exercise of all other religions and the erection of places of worship would also be permitted".

Several questions with regard to the connection of the State both with Buddhism and with Christianity were to arise later and cause the government much embarrassment but during this period this policy was adopted as the most expedient probably for its own preservation. There were some who felt that the government's connection with one religion or other was wrong. William Wilberforce, over-enthusiastic for his own religion and forgetting that Ceylon was not England, wrote: "I have been shocked by a Proclamation by the Governor wherein he vindicated publicly his rights, privileges, revenues, presidencies for the priests of the temple of Candy, whom *we* appoint, having the greatest confidence in his eminent qualities, fidelity and ability. The object is to secure the attachment of the priests of Budhoo and to pull down the Modeliars, who are chiefly Christians; doing away a rule which has always been adhered to from the first European possessions of the island that natives are only capable of holding office, if Christians"²⁵. But Wilberforce's point of view did not prevail. The government policy was to protect religion since it was advantageous to do so. The real cause of conflict came when it was later realised that the government was indeed partial; and its particular methods of protecting some religious interests caused serious injustice to others.

A source of weakness in Christian Evangelism seen even in this period was the disunited witness of the Christian Community. But some efforts were made at least by some of the mission societies to co-operate where possible. The antagonism between the Roman Catholic Church and the Reformed Church which was first seen in the Dutch Period still continued. Although there were personal friendships formed between individual Roman Catholic priests and missionaries of other denominations, the relations between their Churches were not very cordial. The Roman Catholics refused to associate with the other denominations in any religious activity despite their worship of a common Lord. In accordance with their theology they claimed to be the only true Church. They had suffered in the Dutch Period²⁶. They found that the government, although professing religious toleration, assisted only some of the Christian denominations in their religious and educational work.

25. R. I. and S. Wilberforce: *Life of William Wilberforce*, (London: Murray: 1838), Vol. III, pp. 379-80. See for a summary of the *History of Government's Connection with Buddhism*, L. A. Mills: *Ceylon Under British Rule*, (O.U.P. 1933), pp. 124-130.

26. *University of Ceylon Review*, Vol. VI, No. 4, pp. 274 ff.

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As the Revd. Fr. S. G. Perera has pointed out : " The educational policy of the government . . . benefited only the Protestant Christians. Catholics were not helped at all by the government. Their schools were built and maintained without any assistance from the public revenue " ²⁷. These reasons were enough to keep them apart but there was also prejudice on both sides. Many Christian missionaries held Roman Catholic ceremonial and other practices in abhorrence and De Bussche probably reflected a sentiment not uncommon in his time when he deplored the amount of money " the Popish clergy were draining out of the country " ²⁸. The Christian missionaries of the various societies in Ceylon, on the other hand, had more in common with each other and associated together in certain missionary enterprises. The government Chaplains and the missionaries were generally very friendly with each other and co-operated in educational work, in building churches and in evangelistic undertakings. The missionaries sometimes acted for the chaplains and the superintendents of schools ²⁹. Missionaries of different denominations preached in each other's churches and undertook evangelistic tours of villages together ³⁰. All the Churches except the Roman Catholics co-operated in the establishment of the Ceylon Auxiliary of the Bible Society and their work of translation and dissemination of the scriptures ³¹. They were, despite their differences, conscious that they were engaged in a common enterprise and formed a Missionary Union which met periodically for prayer and conference to discuss their common problems and plans for evangelism ³². Such co-operation was integral to the Christian missionary enterprise and wherever it was in evidence it strengthened the claims of the new way of life which the missionaries proclaimed in the Christian Gospel.

C. N. V. FERNANDO

27. The Revd. Fr. S. G. Perera on *History of Policy in Education*, *Ceylon Daily News*, August 13th, 1938.

28. De Bussche : *Letters on Ceylon* (London : Stockdale, 1817), pp. 109-110.

29. W. M. Harvard, pp. 156, 158 ; 160-1 ; 250-1 ; 261 ; 271 ; 381 ; 401 ; *B.M.S.P.A.*, Vol. VI, p. 223.

30. W. M. Harvard, pp. 242, 252, 257, 260, 322-3 : *B.M.S.P.A.* Vol. VI, p. 223.

31. W. M. Harvard : *Introd.* p. xlvii. See note 15 above

32. W. M. Harvard : p. 161 ; *M.R.* 1822, p. 522 ; J. Selkirk : pp. 436-437 ; Bp. R. Heber : *Narrative*, Vol. II, p. 155 ff.

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Sinhale and the Patriots, 1815-1818. By P. E. Peiris. The Colombo Apothecaries' Company, Ltd., 1950. Rs. 20/-.

This is the most comprehensive work that has so far appeared on the subject of the Kandyan Rebellion. The narrative covers 422 pages, Notes 154 pages, Appendices 125 pages, Authorities (manuscript and printed) 7 pages, and Index 36 pages. In fact no such short period in Ceylon history has so far received such full treatment. Dr. Peiris refers to this work in his Preface as a sequel to his *Tri Sinhala*. Actually he reduces his early work to a prelude.

In such a work every incident pertaining to the narrative is naturally treated in minute detail. In dealing with the British campaigns in the Kandyan Provinces Dr. Peiris not only refers to the routes taken by the troops but also describes vividly both the paths as well as the countryside. He deals fully with the British and Kandyan methods of warfare, the guerilla tactics pursued by the Kandyans and the terrorism adopted by the British in their desperation to crush the Rebellion. He introduces sometimes in the main account and sometimes through digressions a picture of the Kandyan society of the time, their institutions and customs to which they clung, their religious beliefs and practices which had such a deep influence over them, their habits and ideas which differed so much from those of the British and made it difficult for their rulers to understand them. The digressions do not break the thread of the story, but add colour to it, and show how steeped is the author in the atmosphere of those times.

Sinhale and the Patriots, however, is not a history in the modern sense. It undoubtedly gives a good picture of the times and brings to life men and women who played their part within it. It reveals to us what the Kandyans thought and felt about the forces that were intruding on them and destroying their way of life. But Dr. Peiris does not view this Rebellion in relation to what followed as a result of its failure. He thinks more of what the Kandyans lost than of what they gained. The Proclamation of 1818 is looked upon as a tragedy by which the Kandyan chiefs were deprived of a great deal of their rights and power and the people were compelled to modify their way of life. It is not looked upon, whatever were the motives of the British, as an event that placed the Kandyans on the path of modern development.

Dr. Peiris' book is definitely one-sided. It is undoubtedly valuable as it is the only work written on this subject from the Sinhalese standpoint. Davy and Marshall, though not definitely prejudiced, looked at his episode as Britishers would. Dr. Colvin R. de Silva, though a Sinhalese, had to depend mainly on British writers and mostly on the despatches sent by Brownrigg to the Secretary of State who was critical of the course followed by the former. Dr. Peiris brings to light a vast amount of new material, especially the correspondence of local officials, who knew the country and the people, and of army officers, who made no attempt to conceal their acts of terrorism and their treatment of the chiefs and the people. With this additional knowledge he tries to relate the story as it appeared to the Kandyans of those days and as how many a Sinhalese of today would like to view this episode. But his work at times seems to lack a sense of balance. He does not view this great event as

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a conflict of two peoples of two different civilizations who approached all questions from two different points of view, and appraise the actions of each party. His sympathies are with the Kandyan chiefs and the people. It is their point of view that he tries to explain and their sufferings that he so vividly describes. He does not ignore the British case but does not deal sufficiently with their difficulties, their background and their justification of their actions.

Occasionally this prejudiced outlook seems to affect even his judgment of the sources and the selection of his material. For instance unlike Dr. de Silva he takes the view that Kāppitipola was forced to join the rebels and that he accepted as King a genuine Nāyakkar and not a pretender. It must be admitted that Dr. Peiris bases his judgment on a considerable amount of material which was not available to Dr. de Silva, but at the same time it is difficult for others to prefer his view till he examines adequately the evidence on which Dr. de Silva based his judgment, and shows why it should be rejected.

There are also a few other shortcomings. The reader cannot make full use of the mine of geographical information that Dr. Peiris provides for want of a map which, it is hoped, would be provided in the next edition. There are occasional minor inaccuracies with regard to matters of detail. Dr. Peiris puts down statements especially with regard to the past history of the Island which cannot any longer be maintained and judgments of others that are questionable, e.g. the selection of the Gāmanī by the vote of the qualified persons (p. 8), the construction of places of worship by Dutugemunu at Kataragama and Saparamuva (pp. 61, 254), Disāpati—an abbreviation of Disāvē adipati (p. 23), etc. Though an attempt has been made to adopt a uniform system of spelling for Sinhalese names and words this has not been done with sufficient consistency, e.g. Sekraya (p. 44), Kāliyuga (p. 186), Kalāvaya (p. 47), Kalāviya (p. 182), Vāḍḍo (p. 207), Vāddo (p. 341), etc.

These are undoubtedly drawbacks, but in spite of them it is a privilege to possess such a detailed history of this important episode in Ceylon history as Dr. Paul Peiris with his amazing industry has produced.

G. C. M

Shakespearian Comedy. By S. C. Sen Gupta. The Oxford University Press, 1950. 287 pp. Rs. 15/-.

Writing on such subjects as Shakespeare's Tragedy or his Comedy is temerarious because the formulation seems to imply the existence of a well-defined category, or, at least, the possibility of such correspondence between theory and practice as would permit the invocation of categories. The task of most writers on Western European tragedy has been considerably lightened by Aristotle. The broad generalisations he makes, if they are not surrendered to canonically, do at least clear the ground and enable the critic to discriminate between the Greek and the Elizabethan. It is a pity that the work on Comedy does not survive. It would perhaps have made all investigations into the nature of the comic smoother and, philosophically, of more substance.

In the absence of such procedure as Aristotle's the best one can do is, I suppose, what Professor Sen Gupta undertakes in his first chapter: A review of various statements on the Comic ranging from Hobbes to Bergson and Freud with frequent rejoinders on either the inadmissibility or the narrowness of their formulations. It is not a satisfactory procedure, nor a happy chapter, for it seemed to me that the author presented his excerpts out of their context, and that his rejoinders were niggling verbalisms. It is a difficult business, and I do not envy anyone attempting to provide in twenty-two pages an excursus,

on the nature of the comic and its philosophy. But I wish that when it came to the discussion of such things as verbal witticisms Professor Sen Gupta had something happier as illustration than the following: "For example, a lazy lout may, in imitation of the well-known hygienic rule 'Don't eat between meals', justify his idleness by saying that it is not good to work between meals". Seriously is this to be regarded as the product of a "wag"?

In Professor Sen Gupta's view—I hope I do him no injustice in presenting his view in these words—the comic arises out of the interplay between the real and the unreal. You are detached from an experience, it does not happen to you—to that extent it is unreal: but it is real, you measure it by standards of reality, and in the recognition of this transformation of the unreal into the real the comic spirit comes into being. I find this not so different after all from Bergson, or from Horace Walpole in the difference he set up between comedy and tragedy, or Charles Lamb on Restoration Comedy with the important addition that the life portrayed by that comedy is (was) real, if decadent.

I wish too the design of the book, or a different title, had saved the author from the necessity of exploring in a few pages the history of English comedy from the beginnings to Massinger, because he sacrifices to form both good criticism, and occasionally, sound scholarship. It is not clear, to me at least, whether by "influence" Professor Sen Gupta means a process of historical development, a tradition, or whether it is a literary historian's abstraction, the academic's gesture to a theory of history. For instance, of the religious drama he writes that it throws no light on the development of English romantic comedy. But he finds in it the faint beginning of "romantic" comedy. Of course the term "romantic" comedy contains a hypothesis. Even so what is the relationship between the comedies Shakespeare wrote for the public theatre of his time and the English popular tradition of drama? This would have been a more interesting and profitable line of investigation than literary history through the examination of such abstractions as plot and characterisation. It is a pity the treatment of such an important subject had to be forced into "a bare outline of the subject from one particular angle", because one misses the results of all the work of countless scholars on what one could call the sociology of the Elizabethan theatre, and the Elizabethanness of the complex of attitudes which is an Elizabethan play.

I am afraid that what makes Chapter 2 perfunctory is the desire of the author to posit a special type of play as the *echt* Shakespearean, so far as Comedy is concerned, and this makes all the cogency of his pleading in particular instances, his knowledge of the subject and his keen interest in it seem worthier of a more reasonable objective. There are some excellent things in the book—notably on Shylock, but I wish Professor Sen Gupta had given us a book on Shakespeare's comedies, taking the admirably austere line of F. W. Bain on the sublime as his directive on the subject of Comedy: that Comedy is all that we have agreed to call Comedy.

E. F. C. L.

Vesaturu-Dā-Sanne. Edited by D. E. Hettiaratchi, B.A., Ph.D. (Lond.); M.A., Ph.D. (Cal.);—M. D. Gunasena & Co., Ltd., Colombo 1950;—pp. viii + 136 + 226—Rs. 7/50.

This is an adaptation of a thesis accepted for the Ph.D. degree of the University of London. No reviewer can treat it as a thesis because the thesis, as such, is purposely hidden from his view; nor can one treat it as nothing more than a critical edition, pure and

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simple, because the *editio princeps* lies hidden under a mass of materials collected for a thesis. These, however, are minor considerations, which can by no means detract from the value of Dr. Hettiaratchi's *magnum opus*. It can hardly be denied that by bringing out such a reliable edition of this very important text he has done an essential service to modern scholarship.

The present volume has two parts with their pages numbered separately, and contains a Preface in Sinhalese (4 pp.) ; two Introductions, one in Sinhalese (65 pp.) and the other in English (60 pp.) ; Abbreviations and Bibliography, Sinhalese (3 pp.) and English (4 pp.) ; Text (134 pp.) ; *Tīkā* (16 pp.) ; and a very useful Index (76 pp.) In his lengthy English Introduction Dr. Hettiaratchi has not only brought together and presented in readable English a fund of valuable information gathered from various sources, especially from the Sinhalese writings of certain eminent scholars including Sir Baron Jayatilaka, but also supplemented it with his own researches. This has made his discussions highly informative, even more than interesting. His long discourse on the Sinhalese exegetical literature, for instance, covering no less than 25 pages of the Introduction, can easily be regarded as a distinct contribution to that particular subject. With those basic materials he might well have written a separate thesis on the Sinhalese exegetical works. His citations showing the differences between Fausböll and the Pali portion of the present text are also extremely useful.

On the other hand, those who are familiar with Sir Baron Jayatilaka's Sinhalese Prefaces can hardly fail to see that the present work has been modelled on them. This, so far as an ordinary essay goes, is a very healthy sign, indeed. But it is open to question whether such a model can satisfy the requirements of a modern University thesis ; and, looking at it from a point of view of systematic research, one cannot also help feeling that Dr. Hettiaratchi's treatment of his principal subject in hand has fallen far short of University standards. His linguistic discussions are in themselves very useful. But, covering not more than 4 pages of the English Introduction, they are too few for a work of this character ; and they all bear the mien of casualness, carrying as they do too many *etceteras* and too many *exempli gratias*. It is true that Sir Baron Jayatilaka himself used to discuss in his essays just a few chosen topics in this manner ; and rightly so because that much was quite sufficient for his immediate purposes. But the same thing can hardly be said of the work under review which must needs be of a more precise nature. Dr. Hettiaratchi's discussions are so abrupt and so cursory that we do not know whether he has at least taken the trouble to examine all the representative themes—rather than a few interesting ones. Even this seems to be doubtful because he tells us that “there are numerous other forms of great linguistic value” and proceeds to say that considerations of time and space prevented him from discussing them. It is a pity that he was not advised to utilize for this purpose half of the time and space which he had unnecessarily devoted to the other Sinhalese exegetical works. To cap it all, he has reserved a discussion of the grammar of the present book for a future occasion. This he wants to do together with a critical edition which he proposes to bring out of another Sinhalese text, namely, the well-known *Dhampiyā-Aṭṭvā-Gāṭapadaya* already published by Sir Baron Jayatilaka.

At the same time, however, it might be considered unfair in this connection to overlook the author's avowed object, which was to give the reader “some idea of the exegetical literature in Sinhalese of which so little is known” and to stimulate “the interests of the

linguists working in New Indian ", as well as to draw the attention " of the workers in Pali towards the treasures that lie hidden in the exegetical works which constitute the major portion of the oldest Sinhalese literature " (Introduction, pp. 125-6). As an object this is doubtless a highly commendable one. And it could have been achieved with remarkable success if only Dr. Hettiaratchi worked, without confusion, on the excellent materials he had collected for that purpose. In that case, no question of editing any particular exegetical text would have arisen at all. But one cannot still help wondering why, instead of making a scientific analysis of the text chosen for treatment as a Ph.D. thesis, he proceeded to treat of the whole range of Sinhalese exegetical literature, and that, too, in such a desultory manner. Obviously, both subjects have suffered thereby.

These observations are only by the way. I must conclude, as I have begun, by expressing my appreciation of Dr. Hettiaratchi's work. Apart from the rigid technicalities, over which there will always be ample room for difference of opinion, he has given us a reliable edition of the *Vesaturu-Dā-Sanne*, which, after all, is what really matters. He has also amassed a wealth of information, for which the future generations of students will be grateful.

J. de L.

Three Plays. By Rabindranath Tagore, trans. by Marjorie Sykes. The Champak Library, Oxford University Press, 1950, 180 pp. Rs. 6/-.

Readers of Tagore in English, as well as those interested in drama, ought to be grateful to Marjorie Sykes for her translations of three plays—*Mukta-dhara*, *Natir Puja* and *Chandalika*. Translation from the original Bengali must have presented innumerable problems, for Tagore's mode, which mixes the poetic and the symbolical, as well as laying heavy stress on the interpretation of contemporary Indian life, must make the search for adequate equivalents in English phraseology difficult. Of the adequacy of the translations as renderings of Tagore's Bengali I cannot judge, but to read Miss Sykes' easy and fluent English is to feel that these translations can stand as " originals " in their own right.

Mukta-dhara is in structure and theme the most interesting of the three plays. It is written round the simple dramatic irony of the hubris of the man-made cult of the machine and its use for the purpose of the exploitation of mankind. This seemed to me immeasurably stronger and tenser than the theme linked with it—the identification of the Prince with the stream, and his final liberation, as well as the stream's, through his sacrifice. The reason for this must be the dramatist's failure to demonstrate it in dramatic terms. The genius of Tagore produces such multifarious themes and intuitions that not all of them are recreated in the form he chooses to write in. It would be wrong to speak of untidiness, for the categories of the well-made play have nothing to do with these examples of Tagore's art.

The two plays on Buddhist subjects I found much less interesting, perhaps their dependence on an art form resembling dance drama or musical drama (I notice that the translator in her notes to *Chandalika* states that " songs which are not dramatically necessary have not been translated ") must make a proper appreciation of them difficult in the form the plays take here.

It is good to have these plays in English, and they are an excellent addition to The Champak Library.

E. F. C. L.

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Everyday Life in Ancient India, by Padmini Sengupta. Oxford University Press, Bombay. First Edition, 1950.

In spite of the plethora of writings on Indian Culture which have appeared in recent times, reliable works dealing with the story of India's long past and her varied spiritual and material achievements are indeed rare. The reader of this book, when the last page has been turned and the volume itself laid down, will undoubtedly conclude that it is a commendable effort to present in brief outline the social life of the ancient Hindus. Not that the writer makes any claim to academic precision, although most of what she says is authenticated by adequate references to texts and critical works. A notable omission, however, is the complete absence of any reference to Zimmer's great work on the subject, but the writer obviously does not go beyond English sources for her material.

An apparent defect in the method of presentation is the confusion of the data extracted from the several texts. Thus, for instance, just after discussing the construction of dwelling houses according to the Ṛgveda the writer adds 'The throne called Simhasana was always necessary in royal households . . . ' (p. 40). The Ṛgveda period knew of no such thrones and it is only in the Mahābhārata that we have any positive reference to them. Similarly, commenting on the famous Frog Hymn of the Ṛgveda (7. 103, *not* 8. 103 as cited) the writer observes that it refers to 'pupils and rishis reciting Vedic hymns in the abodes of learning' (p. 37). The hymn, however, makes no reference at all to *abodes of learning*, nor for a matter of that does the Ṛgveda anywhere contain the slightest allusion to such institutions. Such careless phrases are, to say the least, misleading in a work attempting to give an authentic picture of the life of the Vedic Aryans. On the same page the writer states that 'medicine became a highly developed science . . . in Vedic times'—a statement obviously the result of the writer's emotive reaction to her subject!

It would, nevertheless, be unfair to overstate the few defects of presentation and judgement that are there in an otherwise well-written book. It is written in an easy, elegant style, which admirably suits the average reader for whom it is intended. The writer must be congratulated on the success with which she has given within the short compass of 192 pages an interesting account of everyday life in ancient India.

O. H. de A. W

OTHER BOOKS RECEIVED

Bhāratīya Darśana, by Narawila Dhammaratana Thera and Hedipannala Paññāloka Thera. Kelaniya, 1950.

This book claims to be 'a critical exposition of Indian philosophical thought from Upanishadic times to the 7th century A.C.' Whatever be the merits of the book viewed in that light, it must be admitted that it can serve some useful purpose as an introduction to the study of Indian philosophy in the Pirivenas and as a guide to the average Sinhalese student interested in the subject.

Saṃskṛtagraṇthavaṃśaya, Second Part, by Paṇḍita Paññāloka Thera. Vijaya Press, Ambalangoda, 1950.

This volume is a continuation of the *History of Sanskrit Literature* in Sinhalese published by the author in 1949. This part deals with the classical period, mainly the poetical works. As a handbook for students in Pirivenas and Sinhalese schools it should prove to be of much value. The style, however, could have been simpler.

UNIVERSITY OF CEYLON REVIEW

Abhinavā Pālī Pāṭhāvalī, A Direct Method Pālī Reader, Part 2, by Millawa Gunaratana Thera. The Associated Newspapers of Ceylon Ltd., Colombo 1950.

The first part of this Reader (in Sinhalese characters) has already become popular in the secondary schools. The lessons are well planned and usefully annotated. The vocabulary and English translations at the end make this especially suited for use in the classes conducted in the English medium.

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