

**A NOTE ON THE POSSIBLE RELATIONSHIP OF
KING RĀMA KHAMHAENG'S
SUKHODAYA SCRIPT OF THAILAND
TO THE GRANTHA SCRIPT OF SOUTH INDIA**

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The discussion in this paper is based entirely on materials that have already been published in one form or another (such as volumes of inscriptions, grammatical works, general historical works, and learned papers in journals concerning some aspects of South Indian scripts and the Thai scripts).¹ In other words, the evidence to be cited in this paper does not proceed from any new epigraphical document, whether of South India or of Southeast Asia, which might have remained unpublished or been unknown.

Let me now outline briefly, by way of an introduction, some of the important facts concerning the Grantha script of South India of relevance to the subject-matter of this paper.

The Grantha Script of South India

A.C. Burnell believed that the Grantha script of South India had its origin in the 'Chera Character', so called because it was first used in the Chera kingdom of South India in the early centuries A.D.; and he thought that the Chera character was a variety of 'cave character'. He was also of the opinion that the Grantha character in the early stages of its development was of two main varieties: one that

- 1) The Select Bibliography, which is given at the end of this paper, is in three sections: In Section (a) are listed general works and papers which have reference to the matter under discussion; Section (b) includes books and papers which are of relevance to the scripts of South India and also scripts of South Indian origin found in inscriptions discovered in various parts of mainland Southeast Asia; Section (c) is made up of volumes of Khmer and Thai inscriptions together with some papers dealing with the alphabets and scripts of the Indochinese peninsula.

was in use in the Chera kingdom on the west coast of South India until the ninth century A.D.; and the other used in Toṇḍainādu on the eastern Coromandel coast of South India during the reign of the Pallava rulers and later during the reign of the Chola rulers.² According to Burnell, the modern Grantha script of South India could date back to about 1300 A.D.³

The Grantha script which was used in the inscriptions of South India in the pre-1500 period is classified into at least four main varieties: (a) the early Grantha, which was the script of ancient Sanskrit inscriptions of the Pallava rulers of Kāñchi on the east coast of South India between the fifth and the ninth centuries A.D.; (b) the middle or Chola Grantha of the inscriptions of the Chola rulers in South India between the ninth and the thirteenth centuries A.D.; (c) the Grantha script which was used in the inscriptions of the Pāṇḍiya rulers of South India between the twelfth and the middle of the sixteenth centuries A.D.; and (d) the Grantha script used in some of the inscriptions of the Vijayanagara rulers between the fourteenth and the end of the fifteenth or the beginning of the sixteenth centuries A.D.⁴

According to J.G. Buhler, the most archaic forms of the early Grantha script have been found on the copper plates of the Pallava rulers from the fifth to the sixth centuries A.D.,⁵ while the earliest inscription of the much more advanced form of the Grantha script was that of the Kūram copper plates of the reign of Paramesvaravarman I (A.D. 670-680) and also that of the Kasākkudi copper plates of the time of Nandivarman II (A.D. 731-795).⁶ It is also of interest to note that, since the Pallava documents of the early period (5th-6th centuries A.D.) were restricted to copper-plate grants and the first Pallava stone inscriptions made their appearance only at the beginning of the

2) Burnell, A.C., *Elements of South Indian Palaeography from the fourth to the seventh century*. Second edition, London 1878 p 33.

3) *Loc.cit.*, p 40.

4) See Sivaramamurthy, C., 'Indian epigraphy and South Indian Scripts', *Bulletin of the Madras Government Museum* vol 3 no 4, 1952.

5) Buhler, J.G., 'Indian Paleography', *Indian Antiquary* vol 33, 1904 p 70.

6) *Ibid.*, pp 71-72.

seventh century A.D., the style of the script in the copper plate inscriptions has been found to be more cursive and less ornamental and conservative than the style of the monumental stone inscriptions of later times.⁷

Grantha Script in Literary Works

Apart from its use in the inscriptions of the ruling monarchs, the Grantha script was also employed by the Dravidian Brahmins for writing the sacred books in Sanskrit language in South India.⁸ The term *Grantha* itself indicates that the script known by that name was used mostly for 'books' or for literary purposes.⁹ However, it has been very difficult, wellnigh impossible, to find old specimens of early books written in the Grantha script in South India because the books were of palmleaf manuscripts which perished rapidly. The oldest manuscript which Burnell was able to discover in 1878 was a Tanjore manuscript of about 1600 A.D.

Grantha and Tamil Scripts

The Vatteluttu ('round script'), also known as Pāṇḍiyan character, was believed to have been the original Tamil script.¹⁰ Burnell ascribed its origin to a Semitic source.¹¹ J.H. Bühler, however, thought that the Vatteluttu was derived from a Brahmi script of the early centuries A.D.¹² From an analysis of several early inscriptions, believed to have been written in 'Tamil-Brahmi' script, I. Mahadevan¹³ has recently suggested that "the 'Tamil-Brahmi' script, which was created in the Pandyan country by a deliberate and conscious modification of the Brahmi script to the Tamil phonetic system, had a continuous evolution, until it became, by imperceptible stages, the

7) Diringer, D., *The Alphabet* London 1947 pp 382-83.

8) Burnell, *op.cit.*, p 39.

9) *Ibid.*, p 41.

10) *Ibid.*, p 47. See also Bühler, J.H., *Indian Antiquary* vol 33, 1904 p 75 ff.

11) Burnell, *op.cit.*, pp 49-50.

12) *Op.cit.*, p 75.

13) 'Tamil-Brahmi inscriptions of the Sangam age', Paper presented at the Second International Conference Seminar of Tamil Studies, Madras, January 1968.

Vatṭeḷuttu script some time early in the seventh century". It is generally agreed that the Vatṭeḷuttu characters were modified in course of time by the further development of the Grantha characters. It is also believed that there was a gradual adoption of the Grantha characters (especially those characters corresponding to the older Vatṭeḷuttu characters) for writing Tamil. Burnell thought that the inscriptions of the tenth century A.D. belonging to the earlier kings of the revived Chola kingdom¹⁴ were written in such characters which he called 'Grantha-Tamil'. The Grantha-Tamil characters are believed to have replaced the earlier Vatṭeḷuttu characters about the eleventh century A.D. during the Chola rule.¹⁵

Grantha and Malayalam

The Malayalam script of Kerala in South India is a variety of the Grantha script. That script also was originally applied only to the writing of Sanskrit language in South India. Therefore, the script came to be known as Ārya-eḷuttu ('script of Ārya, or Sanskrit, language').¹⁶ The Ārya-eḷuttu was used to write Sanskrit in Kerala up to the latter part of the seventeenth century when it began to replace the older script of Vatṭeḷuttu which was until then used for writing Malayalam. The application of the Ārya-eḷuttu to Malayalam is said to have been the work of Tuṇṇjatta Eḷuttaccan who lived in the seventeenth century.¹⁷

14) Burnell, *op.cit.*, p 44.

15) The vatṭeḷuttu went out of usage in the Tamil country by the fifteenth century, though it remained in general use in Malabar among the Hindus up to the end of the seventeenth century. Since, it was used in the form of a script known as kol-eḷuttu (script of rulers) until the nineteenth century by the Muslim Mappilas; then it was superseded by the modified Arabic characters. See Burnell, *op.cit.*, pp 48-49.

16) The western variety, i.e. the Grantha script of the west coast of South India, is known to have been modified and become different from the Grantha script of the east coast in course of time. The Malayalam Grantha script of is noted to have preserved older forms which were modified in the Grantha script of later times. See Burnell, *op.cit.*, pp 41-42.

17) Eḷuttaccan is believed to have adopted or retained the earlier vatṭeḷuttu signs for /ɾ/, /l/, and /ɻ/ as part of the new script for Malayalam. Burnell, *op.cit.*, p 42.

Grantha and Ārya-eḷuttu

The complete alphabet of the Ārya-eḷuttu was *printed* for the first time by the Printing Press of the Sacrae Congregationis de Propaganda Fide in Rome in 1772 in the work entitled *Alphabetum Grandonico-Malabaricum Sive Samscrudonicum*.¹⁸ This work is indeed a very valuable source from which we are able to learn a great deal about the Brahmanical Grantha script of that period, and it is more so in view of the rarity of old manuscripts written in the Brahmanical Grantha script.¹⁹

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- 18) Burnell, *op.cit.*, p 43 note 2. Another scholar who referred to *Alphabetum Grandonico-Malabaricum Sive Samscrudonicum* in 1936 was J.R. Firth in 'Alphabets and Phonology in India and Burma', *Bulletin of the School of Oriental Studies* vol 8, 1936 pp 517-46.
- 19) *Alphabetum Grandonico-Malabaricum Sive Samscrudonicum* (Rome 1772) was one of the pioneer publications of Press of the Sacrae Congregationis de Propaganda Fide under the editorship of Iohanne Christophorus Amadutius (or Giovanni Cristofano Amaduzzi) who was the Head of the Typo-graphiae Sacrae Congregationis de Propaganda Fide (1771). It is believed to have been largely the work of Clemens Peanius Alexandinus, a Discalced Carmelite of the Verapoly Mission in Cochin. The title was intended to distinguish the literary script from what the author calls Malean-Tamuza or Malabarico-Tamulicam. The work, written in Latin, consists of a Prologue and eleven chapters, in addition to a Preface of 28 pages. Chapter One deals with the vowels, and Chapter Two with consonants. Chapter Three describes the writing of vowel-consonant combinations; in Chapter Four further details are given on the use of pre-, post-, sub-, and super-scripts. Chapter Five deals with the doubling of consonants. Chapter Six, which is of special relevance to the subject matter of this paper, refers to the form and usage of some six characters used as finals. Chapter Seven is on Word Formation, and Chapter Eight on pronunciation vis-à-vis the equivalent Latin pronunciation. Chapter Nine discusses the problem of some characters that are lacking in the Grantha System, e.g. absence of script for sounds such as /f/, /q/, /x/ and /z/. Chapter Ten deals with the local expressions for the numerals; and Chapter Eleven spells out some of the important Christian religious expressions in the equivalent expressions in Malayalam, written in the Grantha script, before concluding with the Lord's Prayer in that language. Throughout the Latin text of the work Grantha script is used for local expressions, together with their Roman transliteration as well as translation in Latin.

Apart from the *Alphabetum Grandonico-Malabaricum*, the Sacrae Congregationis de Propaganda Fide had published the following: The *Alphabetum Brammhanicum S'eu Indostanum Universitatis Kasi* Rome 1771; *Alphabetum Tengtutanum Sive Tibetanum* Rome 1773; *Alphabetum Barmanorum Seu Regni Avenis* Rome, first published in 1776, revised edition in 1787.

Early Grantha script in Southeast Asia

Although the earliest known epigraphical documents of Indochina and Indonesia are silent about any formal or informal political connections of India with Southeast Asian states in the early centuries A.D., there is other evidence to indicate that trade relations and cultural contacts were already well under way. Apart from the general references to Sanskritized place-names of Southeast Asian countries in the early Indian literary works of both South India and North India and also the references in the Chinese chronicles to the existence of at least some newly founded kingdoms ruled by persons probably of Indian origin in Indochina in the early centuries A.D., there are also substructures of ancient edifices, sculptures and statues of the Amrāvati style of South India which have been discovered at such sites as Oc Eo, Prome, Phong Tuk, Phra Pathom, Si Thep, Kedah, Kuala Selinsing, Kutei, Palembang, Tārumā and Celebes, and which attest to the intensity of cultural contacts between Peninsular India and Southeast Asian states.²⁰

More importantly, the earliest known inscriptions found in various regions of Southeast Asia, though composed in Sanskrit, were written in a script which has been found to be identical with the Grantha script used at that time in the Coromandel coastal regions of South India.²¹ The inscriptions such as that of a Śrī Māra of probably the 3rd century A.D., discovered in Vō-Cạnh²² in Nha-trang

20) Coedès, G., *The Indianized States of Southeast Asia* Honolulu 1968 pp 16-19.

21) Chhabra, B. Ch., *Expansion of Indo-Aryan culture during Pallava Rule as evidenced by the inscriptions* Delhi 1965 pp 72-73.

22) Coedès, G., 'The Date of the Sanskrit inscription of Vō-Cạnh', *Indian Historical Quarterly* vol 16, 1940 pp 484-88; Nilakanta Sastri, K.A., *South Indian Influences in the Far East* Bombay 1949 p 26. See also Nilakanta, K.A., 'The origin of the alphabet of Champa', *Journal of Oriental Research* vol 10, 1936 pp 191-200 & vol 11, 1937 pp 175-77; Majumdar, R.C., 'The origin of the alphabet of Champa', *Journal of Oriental Research* vol 11 no 1, 1937 pp 51-54; Kamaleswar Bhattacharya, 'Precisions sur la paléographie de l'inscription dite de Vō-Cạnh', *Artibus Asiae* vol 24 nos 3/4, 1961 pp 219-24.

in South Vietnam; the inscriptions of Mūlavarman²³ of the end of the fourth century or the beginning of the fifth century A.D. discovered in the region of Kutei in East Borneo; the 'ye-Dhamma' formula inscribed on the rectangular stone-bar of the fourth century A.D. discovered in Kedah in West Malaysia;²⁴ the inscription of Mahanavika Buddhagupta of the fifth century A.D. found in Province Wellesley;²⁵ the inscription on the cornelian seal of the sixth century A.D. discovered in Kuala Selinsing, Perak,²⁶ Malaysia; the fragments of the Pali Buddhist scriptures inscribed on the gold plates of the fifth or the sixth century A.D. discovered at Maunggun village near Hmawaza in the district of Prome in Burma;²⁷ the inscription of the fifth or sixth century found in Si Thep;²⁸ the inscriptions of the same period found in Wat Mahadhatu in Nakhorn Si Thammarat (Ligor);²⁹ the four Mon inscriptions, engraved on an octagonal stone pillar, of the sixth or seventh century found in Lopburi in Thailand;³⁰ the inscriptions of Pūrṇavarman (the king of Tārumā in West Java) of about 450 A.D.;³¹ the inscription of Rambipodji near Loemadjang-Djember in East Java belonging to the fifth century A.D.;³² and the inscriptions of Mahendravarman of Cambodia, dated early seventh century A.D.³³ —all these inscriptions of the early centuries A.D. furnish evidence of the wide and regular use of the South Indian Grantha script in various parts of Southeast Asia. It is also of interest to note that not a single inscription written in an earlier Indian script, neither of the Brahmi of the Mauryan period nor that of the Gupta period, has been found in Southeast Asia.³⁴ What is more significant is that the Grantha script of South India and of Southeast Asian

23) Nilakanta Sastri, *South Indian Influences in the Far East*, *op.cit.*, pp 137-38.

24) *Ibid.*, p 84.

25) *Ibid.*, p 83.

26) *Ibid.*, p 81.

27) *Ibid.*, p 14.

28) *Ibid.*, p 70.

29) *Ibid.*, pp 95-96.

30) *Ibid.*, pp 76-77.

31) *Ibid.*, pp 105-11.

32) *Ibid.*, pp 111-12.

33) *Ibid.*, pp 36-37.

34) Chhbra, *op.cit.*, p 72.

states as represented in the surviving inscriptions of the early period shows a more or less parallel development.³⁵ This has prompted one scholar to say that the characters used in the inscription of the temple of Bayang bearing two dates Śaka 526 (A.D. 604) and Śaka 546 (A.D. 624), covering the period of the Cambodian rulers Bhavavarman, Mahendravarman and Īśānavarman, appear to be so unmistakably South Indian that if its provenance were not known no epigraphist could distinguish it from, say, a Pallava inscription of Mahendravarman of the seventh century.³⁶

It is of course true that that kind of parallel development soon came to be replaced by the independent development of scripts, especially in those states of Southeast Asia that were politically independent around the second half of the eighth century.³⁷ Nevertheless it would seem that the parallel development in the matter of the scripts used in epigraphy of South India and Southeast Asian states was mainly due to the constant contacts and regular communication by sea between the Coromandel coast and Southeast Asian states during the period³⁸ between *circa* A.D. 300 and 800.

As for the subsequent period too, it is well known that the Sanskrit inscriptions of mainland and island Southeast Asian kingdoms continued to be written in the developed varieties of the Grantha script. With reference to this period, Coedès has noted that 'ancient forms of the alphabet continued to be used in the Hindu kingdoms of Indochina and Indonesia several decades and even several centuries after their disappearance in India'.³⁹

This continued use of the Grantha script in Southeast Asian inscriptions is also evident from the three rare but important Tamil inscriptions discovered in the Malay peninsula and in Sumatra, the

35) *Ibid.*, p 73.

36) Nilakanta Sastri, *South Indian Influences in the Far East*, *op.cit.*, pp 40-41.

37) Chhabra, *op.cit.*, p 73. For example, in Java the Dinaya inscription, dated in the Śaka year 682 (A.D. 760), is said to be the earliest specimen of the Kawi character.

38) Nilakanta Sastri, *South Indian Influences in the Far East*, *op.cit.*, pp 49-50; Chhabra, *op.cit.*, p 73.

39) Coedès, 'The Date of the Sanskrit inscription of Võ-Cạnh' *op.cit.*, p 484.

three inscriptions being from Takuapa⁴⁰ on the west coast of Peninsular Thailand, dated 9th century A.D.; from Nakhorn Si Thammarat (Ligor)⁴¹ also on the east coast of Peninsular Thailand, probably of the 9th century though the actual date is uncertain; and from Labu Tuwa⁴² near Baros on the west coast of Sumatra, belonging to A.D. 1088. That the *Grantha-Tamil* script continued to be used for Tamil inscriptions in eastern lands as well is evident also from the Tamil inscription of A.D. 1281 which was discovered in 1956, together with several pieces of Brahmanical sculptures, in a private house in Wu Pao street in Chiuchow, a port in the Fukien province on the east coast of China.⁴³

Grantha script in Brahmanical manuscripts

Apart from the inscriptions, the Grantha script was employed also in the manuscripts of religious and literary works that were in the safe custody of the Brahmanic scholars and priests at the temples and courts of Southeast Asian states. The manuscripts written in what was known as Brahmanical Grantha script, were transcribed from time to time. The manuscript copies which have survived to this day, through periodic transcription under royal patronage by the scribes of the royal household, are known to have retained

40) Nilakanta Sastri, K.A., 'Takuapa and the Tamil inscription', *Journal of the Royal Asiatic Society, Malayan Branch* vol 22 pt 1, 1949 pp 25-30.

41) Coedès, *The Indianized States of Southeast Asia*, *op.cit.*, p 29; Nilakanta Sastri, *South Indian Influences in the Far East*, *op.cit.*, p 95.

42) Nilakanta Sastri, K.A., *Tijdschrift* vol 72, 1932 pp 314-27.

43) Wu Wen-Liang, *Religious Stone Carvings from Chuanchow* (Chinese text) Peking, Scientific Press 1957. See also *International Association of Tamil Research News*, June 1967, Kuala Lumpur, Department of Indian Studies, University of Malaya pp 14-15; Subramaniam, T.N., 'Pīra naatukajil kaaṇum tamīl-k-kalvēṭṭukal (Tamil inscriptions in other countries)', Handbook for the Art Exhibition held on the occasion of the Second International Conference Seminar of Tamil Studies, Madras, January 1968 p 181.

some of the old features in addition to showing some of the new added elements of the script.⁴⁴

It is reasonable to assume, therefore, that the scribes of the royal household in the various states of Southeast Asia were well acquainted with the form, shape and the significance of the script used in writing official, literary and religious documents. No doubt the scribes would have encountered difficult problems in the task of adapting borrowed script then in existence to their own language traditions, requirements, and also to the dynamic linguistic, cultural, and political changes that occurred from time to time. In adapting the elements of the borrowed script they would have found appropriate solutions to the diverse problems of evolving systematic scripts of their own in accordance with their own skill, knowledge and genius. The individualistic features of the Mon, later Burmese, the Khmer, the Thai, and the Old Javanese scripts that are to be found in the inscriptions of those languages are clear evidence of such adaptation.

This paper is concerned with the features of certain characters of one such inscription, namely, the Sukhodaya inscription of A.D. 1292 of King Rāma Khamhaeng of Thailand.⁴⁵ This inscription is

- 44) See Singaravelu, S., 'Theevaaram verses in the Pallava-Chola-Grantha script in Thailand', *Proceedings of the Second International Conference Seminar of Tamil Studies*, Madras 1968, in which the author has dealt with the matter of transcription of Tamil devotional (Bhakti) verses of Theevaaram in Pallava-Chola-Grantha script in the Thai Brahmanical manuscript. A tentative conclusion of the paper is that certain features of the transcription of the verses, peculiar to the phonetic elements of the language(s) of the land(s) in which they were used by the Court Brahmins on occasions like the Royal Coronation Ceremony, would seem to argue for Cambodian origin of the surviving manuscript of 1875 or its original, before the manuscript and the verses recorded in it became part of the Thai Coronation Ceremony.
- 45) Coedès, G., *Recueil des inscriptions du Siam, Première partie: Inscriptions de Sukhodaya* Bangkok 1924. See also Coedès, *The Indianized States of South-east Asia*, *op.cit.*, pp 204-08; for an English translation of the Sukhodaya inscription of King Rāma Khamhaeng, 1292, see Smith, R.B., *Siam or the History of the Thais from earliest times to 1569 A.D.* Bethesda, Maryland 1966 appendix II pp 100-03.

regarded as the earliest surviving one⁴⁶ written in the Thai language, by using the newly invented style of the Thai script, on the instruction of King Rāma Khamhaeng himself who invented the 'new style' of Thai script⁴⁷ some nine years earlier in A.D. 1283.⁴⁸

The Sukhodaya Script of Thailand

Preliminary to our discussion of the evidence on the possible relationship of the Sukhodaya script to the Grantha script of South India, let me summarise briefly some of the findings of scholars who have investigated the problem of the origins of the script of King Rāma Khamhaeng.

Exactly a hundred years ago, in 1868, the German scholar Bastian observed⁴⁹ that 'with the exception of the people of Annam who followed Chinese, all other Indochinese nations (i.e. the Thais, the Burmese, the Mons or Talaings, and the Cambodians) have received their alphabets from India, and have adapted them to their monosyllabic tongues by the introduction of the tones or accents, which are so remarkable a characteristic of the Chinese language'. He added that 'most of these alphabets have adopted in their arrangement the Sanskrit divisions into several classes of gutturals, palatals, cerebrals, dentals, and labials'. With regard to the form of the scripts, he noted that 'they have adopted a cursive and more flowing character, which imparts an external resemblance to the alphabets of Southern India, the Tamil, and the Telinga, and more especially the Sinhalese'. But

46) Bradley, C.B., 'The oldest known writing in Siamese: the inscription of phra Rām Khamhaeng of Sukhothai', *Journal of the Siam Society*, vol 6 pt 1, 1909 pp 1-69.

47) Burnay, J. and Coedès G., ('The origins of the Sukhodaya script', *Journal of the Siam Society* vol 21 pt 2, 1927 pp 87-102) would prefer to interpret an expression occurring in the inscription, namely sūthai nī (สือไทยนี้) to mean that King Rāma Khamhaeng did not say that he was the inventor of the Thai script but merely that he was the inventor of the particular style of the Thai script.

48) This date, or rather the corresponding Śaka year 1205, is given in the 8th line on side 4 of the inscription itself.

49) Bastian, A., 'Remarks on the Indochinese alphabets', *Journal of the Royal Asiatic Society of Great Britain and Ireland* new series vol 3, 1869 pp 65-80.

at the same time he was aware of the general belief that the Cambodian alphabet was the common source from which all the different forms in the peninsula took their origins, while the Cambodians themselves believed that they received their alphabets 'by direct importation from Lanka'.

Bastian also says that during his travels in the Indochinese peninsula he collected specimens of at least twenty-five kinds of alphabets which included Cham, Shan, Talaing, Burmese and Khmer, and also the sacred and profane alphabets of Cambodia, Brahmanic alphabets of Siam and Cambodia, and of course the alphabet invented by King Rāma Khamhaeng.

As a comment on the multiplicity of scripts which he encountered and particularly in reference to the Sukhodaya script of King Rāma Khamhaeng, Bastian noted that King Rāma Khamhaeng, who invented an alphabet which the king thought was adapted to the Indochinese languages as well as those of the Aryan family of languages, had referred to it as *Aryaka*.⁵⁰

Bastian in his paper included only a few illustrations of some specimens of the scripts he had collected, and it is not known whether he published any of these alphabets subsequently.

However, a collection of sixteen tables of Thai alphabets that were current in Siam⁵¹ was published by the Vajirañāna National

50) The reference to *Aryaka* was a puzzle to the writer of this paper. But when he came across the term as Ariyaka (อริยะกะ) in another publication known as *Sixteen Tables of Thai Alphabets Current in Siam* (Bangkok 1914) which has been used there to refer to a kind of alphabet belonging to about 1847, the term meant something to him. But the forms of the alphabet concerned do not seem to have any connection with the script of Sukhodaya; probably the term *Aryaka* or *Ariyaka* had been used to refer to the Sukhodaya script, in addition to its other meaning, namely Aryan race or person of Aryan race.

51) *Sixteen Tables of Thai Alphabets Current in Siam*, Bangkok, Vajiranana National Library 1914. The following are the sixteen tables: Alphabet of Khun Ram Khamhaeng, Alphabet of Phaya Lü Thai (A.D. 1357), Alphabet from Chiangmai (A.D. 1518), Alphabet in the reign of King Narayana (A.D. 1680), Ariyaka printed characters (about 1847), Ariyaka written characters (about 1847), Current Siamese writing in the shape of tamarind leaves, Compressed Thai letters, Northern Siamese letters-Sacred writing (Pali), Northern Thai letters-Profane writing, Grantha, Brahmana Thai alphabet, Compressed Cambodian characters, Cambodian elaborate style, Cambodian letters-Elaborate current style, Cambodian current style

Library in Bangkok in 1914. Frankfurter, who signed the prefatory note of the publication, wrote that the sixteen tables of Thai alphabets reproduced were taken from inscriptions and manuscripts preserved in the National Library and whilst in all cases their affinity to each other and other Indian alphabets was manifest it must be reserved to future investigations to show their historical relations.

The fact was that the most important and widely known script, the Sukhodaya script, was already receiving the attention of some western scholars. Among them were Bradley, Burnay and Coedès.

Bradley analysed the inscription of King Rāma Khamhaeng in the *Journal of the Siam Society* (vol 6) in 1909. Four years later, in 1913, he published a paper entitled 'The proximate source of the Siamese alphabet', also in the *Journal of the Siam Society* (vol 10 pt 1). Coedès published the first volume of the Siamese inscriptions of Sukhodaya in 1924 and in the following year his work on the history of Thai writing appeared in Thai under the title *Tamnān aksan thai* (Bangkok 1925). This had sections devoted to the discussion of alphabets in Thailand, India, Cambodia and also on the Indian alphabet in Siam, on the Middle Thai alphabet, Northern Thai alphabet and Tonkin Thai alphabet. The alphabets discussed in the work were illustrated in ten tables. It is noteworthy that the Pallava Grantha characters of the seventh century were included in the tables together with the Khmer and the Thai scripts of different periods. In 1927, Coedès and Burnay together wrote and published a series of three valuable papers concerning the Sukhodaya script, its origins and its tonal system in the *Journal of the Siam Society*.

In the first⁵² of the three papers, Burnay and Coedès discussed the origins of the Sukhodaya script; they were of the view that the script used in the oldest surviving Thai inscription of A.D. 1292 was probably from an older Thai script—a cursive form of script—which was perhaps the work of a disciple of a Khmer master or a Khmer himself. They also believed that King Rāma Khamhaeng's contribution in the invention of the Thai script consisted of improving or setting up the tone notation.

52) Burnay and Coedès, 'The origins of the Sukhodaya script', *op.cit.*, pp 87-102.

On the question of the form of the proto-Siamese writing they disagreed with the earlier view of Finot who thought that the Black Thai alphabets were the source of the Sukhodaya script. Instead, Burnay and Coedès argued that the true reflection of King Rāma Khamhaeng's Sukhodaya script was the Lao alphabet as used by the Lao of Luang Prabang. To them, the Sukhodaya script was a modification of an alphabet the content of which was identical with that of the eastern Lao alphabet.

With regard to the cursive form of script chosen by King Rāma Khamhaeng, they noted that the king, with strong national feelings and as an independent sovereign, did not adopt the monumental form of Khmer writing but selected an older form of cursive script so that it would be Thai in its immediate origin.

Burnay and Coedès also suggested that there were two main reasons behind King Rāma Khamhaeng's designing a new style of script. One was to raise the Siamese language to the same level as the Khmer so that the language, equipped with an alphabet of Indian origin, could preserve the written appearance (if not the original pronunciation) of the terms for various ideas of Indian civilization. The Siamese language with the new script not only rose to a level with the Khmer but replaced it completely. The second reason was to provide the Khmer and Mon people of the Menam valley with a common script of the Siamese language.

Another scholar who investigated the problem of the origin of the Sukhodaya script was, as already mentioned, Bradley. In his paper entitled 'The proximate source of the Siamese alphabet'⁵³ he examined three main theories on the immediate source of the Siamese writing. The first theory was that the source was the Pali script of the Buddhist scriptures brought by the missionaries from Ceylon. Bradley thought that it was unlikely that the Pali script was the source of the Sukhodaya script because the shapes of the Sukhodaya letters were not like the letters of Pali texts then written in Ceylon and the occasional resemblances between the Sukhodaya letters and the Sinhalese forms of letters were no more than should be expected

53) Bradley, 'The proximate source of the Siamese alphabet', *op.cit.*, pp 1-12.

as a result of relationship through a rather distant common ancestor. The second theory argued for Burmese origin on the basis of a general resemblance claimed between the four-square writing of the Sukhodaya stone and that of the ancient Burmese inscriptions. This too was considered unsatisfactory, for the resemblance was merely that of general impression when the forms of writing were seen in mass and there was no resemblance when corresponding letters were compared in detail. Again, while the shape was generally quadrate in both, in Burmese letters were made up of separate straight strokes meeting in square corners but the Sukhodaya letters were made with one continuous stroke throughout, resulting in lines which were rarely straight and in corners which were nearly always somewhat round. The variant of the stone form of the Burmese script, namely, the circular arc-forms of letters, which was an adaptation for tracing with a stylus point on the surface of palm-leaf, resembled the Sukhodaya script even less. The third theory examined by Bradley was one which advocated a Cambodian origin for the Sukhodaya script. Bradley scrutinized most of the published epigraphy of Southern Indochina in addition to examining a selected group of the inscriptions chosen mainly for their legibility, extent and definite dating. It was of course not an easy thing to secure a complete alphabet from the epigraphy. Weather, time, and imperfect skill on the part of the scribes had made some portions of the inscriptions useless for the exact study of each alphabet; some letters were rare, some were encountered for the most part in ligated, sub-script, super-script and even circumscribed forms often with little or no resemblance to the standard forms.

Bradley compiled a table of the scripts of Cambodian inscriptions of the seventh century and the thirteenth century to compare them with the Champa characters of the 8th century and the Sukhodaya script of the 13th century. Thus, the comparison made was of only mainland Southeast Asian scripts of Cambodia, Champa, Burma and Thailand. There were both similarities and divergences between the Sukhodaya script and the Cambodian script. He attributed the divergences to the time-and-space interval, the individual differences between the style of different scribes, and, most importantly, to

the purposeful changes which King Rāma Khamhaeng made in the interest of simplicity by abolishing at one stroke all the complex features of the scripts in use at that time and also to the purposeful attempt to avoid confusion between letters that were too nearly alike in shape.

Bradley concluded that the Sukhodaya characters were probably less than a century apart from the Khmer characters used in the inscription of Angkor Wat early in the 13th century.

Now, the reasons attributed by scholars like Burnay, Coedès and Bradley for the divergencies between the characters of the Sukhodaya alphabet and some of the characters of what have been regarded as the immediate or proximate sources of the Sukhodaya script are quite valid. Nevertheless, this need not deter us from looking elsewhere for the possible sources of the origin of the characters including the divergent forms. Scholars like Burnay, Coedès and Bradley have already investigated the possibility of the origins of the Sukhodaya script among the slightly older scripts of the Indochinese peninsula and have found both similarities and divergences of forms among the scripts thus compared. Yet one cannot conclude that the final word has been said on the question of the origins of the Sukhodaya script. In order to arrive at a more definite answer to the problem comparison should be made also of the other varieties of older Grantha scripts. By the other varieties I mean specifically not only those which were in use in South India but also the types of Brahmanical Grantha script used by the scribes of the royal household, especially in Cambodia and in Thailand.

An attempt at such a comparison is made in this paper in some seven comparative tables of the South Indian Grantha scripts of the 7th, 11th, 13th, 15th, 18th and 20th centuries together with an adopted variety of Grantha script used by modern Malayalam, with the Cambodian characters of the 6th, 13th and 20th centuries, the Thai Brahmanical Grantha of the surviving Brahmanical manuscripts, the Thai script of the 13th, the 14th, the 17th and the 20th centuries, and, finally, the Tamil script of the 7th, 11th and 13th centuries. Thus, the relationships between the Grantha characters and the characters of the other scripts can be investigated further.

The materials for compiling these tables have been drawn from various sources of previously published charts and tables. In the case of the South Indian Grantha and Tamil characters, Sivaramamurthi's work on Indian epigraphy and South Indian scripts (Madras 1952) and Filliozat's 'Paléographie' in Renou, L., and Filliozat, J., *L'Inde Classique* vol 3 Paris 1953 have been useful. The materials on the Cambodian and Thai scripts have been drawn from the tables of Coedès in *Tamṇān aksōn thāi* (Bangkok 1925) and also from the chart provided by Bradley in the *Journal of the Siam Society* (1913). The Thai Brahmanical Grantha script represented in the table is that of a Thai Brahmanical manuscript entitled *poet pratuu sivaalai* (Opening the Portals of Sivaalaya) in which part of the Tamil devotional verses of *Dēvāram* is written in Brahmanical Grantha characters. Finally, the characters representing the Grantha of Kerala of the 18th century are from the tables given in the Latin work *Alphabetum Grandonico-Malabaricum Sive Sanscrudonicum* (Rome 1772).

It is not my intention in this paper to deal with the form of each character—the similarity or divergence between a character and the corresponding character of the script of another language. However, I would like to refer to the form of one character of South Indian Grantha and Thai script to illustrate the possible relationship between the two. The character concerned is the sign for the dental voiced nasal consonant /n/.

In Sanskrit, for the writing of which the Grantha script was used in South India, the nasal consonant /n/ is described as a dental produced at the teeth or at the rim of the teeth. But in Kerala in South India its pronunciation is said to be not uniform, mainly because there are two distinct phonemes, the dental /n/ and the blade alveolar /ṇ/ in Malayalam.⁵⁴ The existence of these two sounds in Malayalam is said to have influenced the Kerala pronunciation of the Sanskrit dental /n/. Furthermore, the value of Sanskrit /n/ depends on the position it occupies in a word: the initial /n/ of Sanskrit is pronounced as a dental but in medial and final positions as an alveolar.

54) Kunjunni Raja, K., 'Kerala pronunciation of Sanskrit, *The Adyar Library Bulletin* vol 25, 1961 pp 468-70.

COMPARATIVE TABLES
OF SOUTH INDIA GRANTHA, MALAYALAM, KHMER,
THAI, AND TAMIL SCRIPTS

VOWELS

GROUP 1		A	Ā	I	Ī	U	Ū	Ṛ	Ṝ	Ḍ	Ḍ̄	E	Ē	AI	O	ō	AU
2	a	𑌕	𑌖	𑌗	𑌘	𑌙							𑌛				
	b	𑌚	𑌛	𑌜	𑌝	𑌞							𑌟				
	c	𑌠	𑌡	𑌢	𑌣	𑌤							𑌥				
	d	𑌦	𑌧	𑌨	𑌩	𑌪							𑌫				
	e	𑌭	𑌮	𑌯	𑌰	𑌱	𑌲	𑌳	𑌴	𑌵	𑌶		𑌷	𑌸		𑌹	𑌺
3		𑌻	𑌼	𑌽	𑌾	𑌿	𑍀	𑍁	𑍂	𑍃	𑍄		𑍅	𑍆		𑍇	𑍈
4		𑍉	𑍊	𑍋	𑍌	𑍍	𑍎	𑍏	𑍐	𑍑	𑍒	𑍓	𑍔	𑍕	𑍖	𑍗	𑍘
5	a	𑍙	𑍚	𑍛	𑍜	𑍝		𑍞					𑍟				
	b	𑍠	𑍡	𑍢				𑍣					𑍤				
	c	𑍥	𑍦	𑍧	𑍨	𑍩	𑍪	𑍫	𑍬	𑍭			𑍮	𑍯		𑍰	𑍱
6	a	𑍲	𑍳	𑍴		𑍵							𑍶	𑍷		𑍸	
	b		𑍹	𑍺	𑍻	𑍼							𑍽	𑍾	𑍿	𑎀	
7	a	𑎁	𑎂	𑎃	𑎄	𑎅	𑎆						𑎇	𑎈		𑎉	𑎊
	b	𑎋	𑎌	𑎍	𑎎	𑎏	𑎐						𑎑	𑎒			
	c	𑎓	𑎔	𑎕	𑎖	𑎗	𑎘						𑎙	𑎚			
	d	𑎛	𑎜	𑎝	𑎞	𑎟	𑎠	𑎡	𑎢	𑎣	𑎤	𑎥	𑎦	𑎧	𑎨	𑎩	𑎪
8	a	𑎫	𑎬	𑎭	𑎮	𑎯							𑎱	𑎲			
	b	𑎳	𑎴	𑎵	𑎷	𑎸							𑎹	𑎺			
	c	𑎻	𑎼	𑎽	𑎿	𑏀							𑏁				
	d		𑏃	𑏄	𑏅	𑏆	𑏇						𑏈	𑏉		𑏊	𑏋

GROUP 1: Roman transliteration of Sanskrit alphabets

GROUP 2: SOUTH INDIA, a. Pallava, 7th C; b. Chola, 11th C;
c. Pandiya, 13th C; d. Vijayanagar, 15th C; e. Kerala, 18th C.

GROUP 3: MODERN GRANTHA

GROUP 4: MODERN MALAYALAM

GROUP 5: CAMBODIA, a. 6th C; b. 13th C; c. 20th C.

GROUP 6: a. THAI BRAHAMANICAL GRANTHA; b. Vocalic signs

GROUP 7: THAILAND, a. Sukhodaya, 13th C; b. 14th C; c. 17th C; d. 20th C.

GROUP 8: TAMIL, a. 7th C; b. 11th C; c. 13th C; d. Vocalic signs, 11th C.

COMPARATIVE TABLES
OF SOUTH INDIAN GRANTHA, MALAYALAM, KHMER,
THAI, AND TAMIL SCRIPTS
CONSONANTS

GROUP 1		KA	KHA	GA	GHA	ŃA	CA	CHA	JA	JHA	ṆA	TA	THA	DA	DHA	ṆA	TA	THA
2	a	𑌕	𑌖	𑌗	𑌘	𑌙	𑌚	𑌛	𑌜	𑌝	𑌞	𑌟	𑌠	𑌡	𑌢	𑌣	𑌤	𑌥
	b	𑌦	𑌧	𑌨	𑌩	𑌪	𑌫	𑌬	𑌭	𑌮	𑌯	𑌰	𑌱	𑌲	𑌳	𑌴	𑌵	𑌶
	c	𑌷	𑌸	𑌹	𑌺	𑌻	𑌼	𑌽	𑌾	𑌿	𑍀	𑍁	𑍂	𑍃	𑍄	𑍅	𑍆	𑍇
	d	𑍈	𑍉	𑍊	𑍋	𑍌	𑍍	𑍎	𑍏	𑍐	𑍑	𑍒	𑍓	𑍔	𑍕	𑍖	𑍗	𑍘
	e	𑍙	𑍚	𑍛	𑍜	𑍝	𑍞	𑍟	𑍠	𑍡	𑍢	𑍣	𑍤	𑍥	𑍦	𑍧	𑍨	𑍩
	f	𑍪	𑍫	𑍬	𑍭	𑍮	𑍯	𑍰	𑍱	𑍲	𑍳	𑍴	𑍵	𑍶	𑍷	𑍸	𑍹	𑍺
3		𑍻	𑍼	𑍽	𑍾	𑍿	𑎀	𑎁	𑎂	𑎃	𑎄	𑎅	𑎆	𑎇	𑎈	𑎉	𑎊	𑎋
4	a	𑎌	𑎍	𑎎	𑎏	𑎐	𑎑	𑎒	𑎓	𑎔	𑎕	𑎖	𑎗	𑎘	𑎙	𑎚	𑎛	𑎜
	b	𑎝	𑎞	𑎟	𑎠	𑎡	𑎢	𑎣	𑎤	𑎥	𑎦	𑎧	𑎨	𑎩	𑎪	𑎫	𑎬	𑎭
	c	𑎮	𑎯	𑎰	𑎱	𑎲	𑎳	𑎴	𑎵	𑎶	𑎷	𑎸	𑎹	𑎺	𑎻	𑎼	𑎽	𑎾
5		𑎿	𑏀	𑏁	𑏂	𑏃	𑏄	𑏅	𑏆	𑏇	𑏈	𑏉	𑏊	𑏋	𑏌	𑏍	𑏎	𑏏
6	a	𑏐	𑏑	𑏒	𑏓	𑏔	𑏕	𑏖	𑏗	𑏘	𑏙	𑏚	𑏛	𑏜	𑏝	𑏞	𑏟	𑏠
	b	𑏡	𑏢	𑏣	𑏤	𑏥	𑏦	𑏧	𑏨	𑏩	𑏪	𑏫	𑏬	𑏭	𑏮	𑏯	𑏰	𑏱
	c	𑏲	𑏳	𑏴	𑏵	𑏶	𑏷	𑏸	𑏹	𑏺	𑏻	𑏼	𑏽	𑏾	𑏿	𑐀	𑐁	𑐂
	d	𑐃	𑐄	𑐅	𑐆	𑐇	𑐈	𑐉	𑐊	𑐋	𑐌	𑐍	𑐎	𑐏	𑐐	𑐑	𑐒	𑐓
		KA				ṆA	CA				ṆA	TA				ṆA	TA	
7	a	𑐔				𑐕	𑐖				𑐗	𑐘				𑐙	𑐚	
	b	𑐛				𑐜	𑐝				𑐞	𑐟				𑐠	𑐡	
	c	𑐣				𑐤	𑐥				𑐦	𑐧				𑐨	𑐩	

GROUP 1: Roman transliteration of Sanskrit alphabets.

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GROUP 3: MODERN MALAYALAM

GROUP 4: CAMBODIA, a. 6th C; b. 13th C; c. 20th C.

GROUP 5: THAI BRAHMANICAL GRANTHA.

GROUP 6: THAILAND, a. Sukhodaya, 13th C; b. 14th C; c. 17th C; d. 20th C.

GROUP 7: TAMIL, a. 7th C; b. 11th C; c. 13th C.

Tables compiled by S. Singaravelu,
University of Malaya, August, 1968.

COMPARATIVE TABLES
OF SOUTH INDIAN GRANTHA, MALAYALAM, KHMER,
THAI, AND TAMIL SCRIPTS

CONSONANTS

GROUP 1		DA	DHA	NA	PA	PHA	BA	BHA	MA	YA	RA	LA	VA	śA	ṣA	SA	HA	L
2	a	𑌄	𑌅	𑌆	𑌇	𑌈	𑌉	𑌊	𑌋	𑌌	𑌍	𑌎	𑌏	𑌐	𑌑	𑌒	𑌓	𑌔
	b	𑌕	𑌖	𑌗	𑌘	𑌙	𑌚	𑌛	𑌜	𑌝	𑌞	𑌟	𑌠	𑌡	𑌢	𑌣	𑌤	𑌥
	c	𑌦	𑌧	𑌨	𑌩	𑌪	𑌫	𑌬	𑌭	𑌮	𑌯	𑌰	𑌱	𑌲	𑌳	𑌴	𑌵	𑌶
	d	𑌷	𑌸	𑌹	𑌺	𑌻	𑌼	𑌽	𑌾	𑌿	𑍀	𑍁	𑍂	𑍃	𑍄	𑍅	𑍆	𑍇
	e	𑍈	𑍉	𑍊	𑍋	𑍌	𑍍	𑍎	𑍏	𑍐	𑍑	𑍒	𑍓	𑍔	𑍕	𑍖	𑍗	𑍘
	f	𑍙	𑍚	𑍛	𑍜	𑍝	𑍞	𑍟	𑍠	𑍡	𑍢	𑍣	𑍤	𑍥	𑍦	𑍧	𑍨	𑍩
3		𑍪	𑍫	𑍬	𑍭	𑍮	𑍯	𑍰	𑍱	𑍲	𑍳	𑍴	𑍵	𑍶	𑍷	𑍸	𑍹	𑍺
4	a	𑍻	𑍼	𑍽	𑍿	𑎀	𑎁	𑎂	𑎃	𑎄	𑎅	𑎆	𑎇	𑎈	𑎉	𑎊	𑎋	𑎌
	b	𑎍	𑎎	𑎏	𑎐	𑎑	𑎒	𑎓	𑎔	𑎕	𑎖	𑎗	𑎘	𑎙	𑎚	𑎛	𑎜	𑎝
	c	𑎞	𑎟	𑎠	𑎡	𑎢	𑎣	𑎤	𑎥	𑎦	𑎧	𑎨	𑎩	𑎪	𑎫	𑎬	𑎭	𑎮
5		𑎯	𑎰	𑎱	𑎲	𑎳	𑎴	𑎵	𑎶	𑎷	𑎸	𑎹	𑎺	𑎻	𑎼	𑎽	𑎾	𑎿
6	a	𑏀	𑏁	𑏂	𑏃	𑏄	𑏅	𑏆	𑏇	𑏈	𑏉	𑏊	𑏋	𑏌	𑏍	𑏎	𑏏	𑏐
	b	𑏑	𑏒	𑏓	𑏔	𑏕	𑏖	𑏗	𑏘	𑏙	𑏚	𑏛	𑏜	𑏝	𑏞	𑏟	𑏠	𑏡
	c	𑏢	𑏣	𑏤	𑏥	𑏦	𑏧	𑏨	𑏩	𑏪	𑏫	𑏬	𑏭	𑏮	𑏯	𑏰	𑏱	𑏲
	d	𑏳	𑏴	𑏵	𑏶	𑏷	𑏸	𑏹	𑏺	𑏻	𑏼	𑏽	𑏾	𑏿	𑐀	𑐁	𑐂	𑐃
				NA	PA				MA	YA	RA	LA	VA	LA	LA	RA	NA	
7	a			𑐄	𑐅				𑐆	𑐇	𑐈	𑐉	𑐊	𑐋	𑐌	𑐍	𑐎	
	b			𑐏	𑐐				𑐑	𑐒	𑐓	𑐔	𑐕	𑐖	𑐗	𑐘	𑐙	
	c			𑐚	𑐛				𑐜	𑐝	𑐞	𑐟	𑐠	𑐡	𑐢	𑐣	𑐤	

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GROUP 3: MODERN MALAYALAM

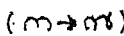
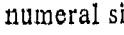
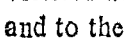
GROUP 4: CAMBODIA, a. 6th C; b. 13th C; c. 20th C.

GROUP 5: THAI BRAHMANICAL GRANTHA.

GROUP 6: THAILAND, a. Sukhodaya, 13th C; b. 14th C; c. 17th C; d. 20th C.

GROUP 7: TAMIL, a. 7th C; b. 11th C; c. 13th C.

In the case of compound words, the initial /n/ of the second member is a dental, as if it were a different word, though in some cases where the different members are not felt as separate parts of the word the blade alveolar itself appears (e.g. aniti). In conjunct consonants (e.g. /nt/, /nth/ and /tn/) the /n/ element is dental.

In the orthography of Malayalam there is only one symbol to represent the two distinct phonemes of the dental /n/ and the blade alveolar /ɳ/. In Tamil, on the other hand, there are two distinct symbols for the dental nasal sound /n/ and for the alveolar nasal sound /ɳ/, each with its complete set of vowel-consonant syllables.⁵⁵ In correct modern orthography the symbol for the dental /n/ cannot be final (though it was known in old Tamil) and the symbol for the alveolar /ɳ/ cannot be initial. But it must be pointed out that in Malayalam there is a symbol for the final (alveolar) sound of /ɳ/ which is used to indicate that the final consonant must be pronounced without the inherent vowel /a/. This symbol is formed by extending the right curved limb of the dental /n/ to the left slightly before continuing the stroke vertically up, thus forming a loop (). There are four other final letters, corresponding to the retroflex /n/, /r/, the alveolar /l/ and the retroflex /l/. Their symbols also are written in the manner just described. The present symbol in Malayalam for the dental nasal /n/ has the appearance of the Arabic numeral sign for 3 lying on its face (). But before it attained its present shape it would seem to have passed through several forms. In the Grantha of the sixth and seventh centuries, it consisted of a vertical with its top end being either forked or having a small serif and to the right of the vertical a curved limb (). In the

55) Initially, /n/ is usually dental. Medially, followed by /t/, /n/ is dental and homorganic with /t/. When /nn/ occurs medially it is alveolar. Intervocally and finally /n/ is a clear alveolar nasal, made with the tip of the tongue on the teeth ridge near the upper teeth. When /n/ replaces /l/ in inflection, it is represented by /ɳ/, not /n/. A final alveolar /ɳ/ is replaced by a dental /n/ if the next syllable begins with /t/. See Firth, J.R., 'A short outline of Tamil pronunciation' in *A Progressive Grammar of Common Tamil* by A.H. Arden, 4th edition, Kodaikkanal 1934 pp. xii-xiii in Appendix; see also *Tolkāppiyam*, *Eluttu* 45.

eighth century, the vertical looped rather imperceptibly to the left base before continuing to the right to form the curved limb (𑌵). A hook-shaped top of the vertical, somewhat slanting down to the left and continuing to the right as the curved limb, constituted the Chola Grantha letter of the 11th century (𑌶). Two parallel vertical strokes crowned by serif and a curved limb in continuation of the right vertical constituted /n/ of the Pandiyan script of the 13th century (𑌷),⁵⁶ In the 18th century Grantha of Kerala, the letter /n/ seems to have assumed the shape of the Arabic numeral sign for 3 lying on its face, but with its right curved limb slightly straightened and curved towards its tip (𑌸). While this symbol was used for the dental /n/, yet another sign like the Arabic numeral sign for 2 with its tail-end curving down to the left before turning again vertically up forming a loop (𑌹) seems to have been used for the final /n/ which was to be pronounced without the inherent vowel. This is evident from the following statement, together with the symbol, on page 71 of *Alphabetum Grandonicum-Malabaricum Sive Samscrudonicum* (Rome 1772):

Littera 𑌹 en aequivalet /n/ finali Latinorum tum
in fine, tum in medio dictionis.

The significant thing about the form of the script for the final /n/ in the Grantha script of that period is that it is very similar to that of the post-dental nasal⁵⁷ /n/ (𑌹) to be found in the Sukhodaya inscription of King Rāma Khamhaeng and it has to this day maintained its form in the Thai script. Is this similarity merely a case of coincidence? Or is it probable that the form of the Thai post-dental voiced nasal /n/ might have been adopted from the form of the letter used to signify the final /n/ in the Grantha script of South India before the beginning of the thirteenth century? Is it possible that such an adoption could have been facilitated by the existence of Brahmanical manuscripts using the form of that character in Thailand

56) See Sivaramamurthi, C., 'Indian epigraphy and South Indian scripts', *Bulletin of the Madras Government Museum* vol 3 no 4, 1952 p 121 fig 49.

57) The post-dental voiced nasal /n/ occurs both initially and finally in Thai. For further details see Mary R. Haas, *The Thai System of Writing* Washington D.C. 1956 pp 54-56.

or in Cambodia? Or, again, is the similarity in the form merely a coincidence?

First of all, an interpretation that the similarity in form might be due to adoption would be open to legitimate objection on the ground that the form of the final letter /n/ resembling that of the Thai dental /n/ is only found in a work of a much later period (1772) and as such it cannot be cited as reliable evidence of the similarity in shape of a letter found in an inscription of A.D. 1292. For lack of more reliable evidence of an earlier period, the only reply to the objection would seem to be that the form of the final letter /n/ given in the work of 1772 might represent a survival from an earlier period; we might guess this to have been so from the fact that its shape does not seem to have remained the same, for the modern form of the character is much changed. With regard to the possibility of earlier symbols being survivals in later times, an instance may be mentioned in which the Burmese alphabet from Pu Daung's inscription, belonging to 1774, is known to have very faithfully reproduced the ancient Burmese writing.⁵⁸ In the old days, when transcription was made from manuscript to manuscript, such faithful reproduction is known to have been common. We must also remember that the *Alphabetum Grandonicum-Malabaricum Sive Samscrudonicum* was the first printed book to have the printed form of the characters of the Grantha of that time; therefore, there is no possibility that the characters changed their forms due to the influence of the typecasters. In any case, the question, whether it is due to coincidence or adoption that the form of the Thai dental nasal character /n/ appears similar to that of the final /n/ used in the Grantha script of the 18th century and retaining an older form, would seem to require further investigation.

Another kind of doubt which would arise in our minds with regard to the possibility of adoption is: assuming that there was adoption, why should the form of the final letter /n/ be adopted instead of the form of the initial dental nasal character /n/ of the Grantha script?

58) Bradley, 'The proximate source of the Siamese alphabet', *op.cit.*, note 13 page 9.

It is with regard to this question that the reason suggested by Bradley for the divergence of characters in the Sukhodaya script from those of the Cambodian script would seem to be appropriate. One of the reasons for the divergence of characters, according to Bradley, might have been the purposeful change made by King Rāma Khamhaeng in order to avoid confusion over characters of nearly the same shape. Had King Rāma Khamhaeng considered adopting the form of any Grantha character of his time; then, he would have observed that the form of the (initial) dental nasal letter (ञ) of the Grantha script was likely to be confused with the form of the velar nasal character (ण) of the Grantha script, which incidentally, also seems to be similar to the form of the Thai velar nasal character /ŋ/ of the Sukhodaya inscription (ญ). Therefore, to avoid confusion between letters King Rāma Khamhaeng might have decided to adopt the form of the final /n/ (ฦ) of the Grantha script of South India, again probably through a Brahmanical manuscript written in that script. Whether he might have done so or not depends on more reliable evidence. Nevertheless, it is of some interest to note that the forms of both the post-dental nasal character /n/ and the velar nasal character /ŋ/ of the Thai Sukhodaya script are very different from those forms of the corresponding characters of the Cambodian alphabet, not only of the modern period but also of the earlier period; a divergence which may be accounted for by the purposeful change made by the great ruler, King Rāma Khamhaeng, who gave his people their national script.

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