

HANDBUCH DER ORIENTALISTIK

Herausgegeben von B. SPULER

unter Mitarbeit von

H. FRANKE, J. GONDA, H. HAMMITZSCH, W. HELCK, B. HROUDA,
H. KÄHLER, J. E. VAN LOHUIZEN-DE LEEUW und F. VOS

DRITTE ABTEILUNG

INDONESIEN, MALAYSIA UND DIE PHILIPPINEN

UNTER EINSCHLUSS DER KAP-MALAIEN IN SÜDAFRIKA

HERAUSGEGBEN VON H. KÄHLER

VIERTER BAND

LINGUISTIK

ERSTE LIEFERUNG

INDONESIAN PALAEOGRAPHY



LEIDEN/KÖLN

E. J. BRILL

1975

INDONESIAN PALAEOGRAPHY

A HISTORY OF WRITING IN INDONESIA
FROM THE BEGINNINGS TO C. A.D. 1500

BY

J. G. DE CASPARIS



LEIDEN/KÖLN
E. J. BRILL
1975

ISBN 90 04 04172 9

Copyright 1975 by E. J. Brill, Leiden, Netherlands

*All rights reserved. No part of this book may be reproduced or
translated in any form, by print, photoprint, microfilm, microfiche
or any other means without written permission from the publisher*

PRINTED IN THE NETHERLANDS

CONTENTS

Preface	VII
Abbreviations	VIII
Introduction	I
I. Indonesian scripts before the middle of the eighth century	12
A. Early Pallava script	14
1. Kutai inscriptions	14
2. The inscriptions of Pūrṇavarman of Tārumā	18
3. A few inscriptions from Kēdah	19
B. Later Pallava script	20
1. Inscription of Tuk Mas	23
2. The early inscriptions of Śrīwijaya	24
3. The Sanskrit inscription of Canggal	27
II. Early Kawi script (c. 750-925)	28
A. Archaic phase.	29
1. Stele of Plumpungan	29
2. The inscription of Dinoyo	29
3. Inscriptions between 760 and 856	31
B. Standard form of Early Kawi	33
1. Inscriptions of Kayuwangi and Balitung (856-910).	33
2. Inscriptions from 910 to 925	34
Appendix: Early Nāgarī	35
III. Later Kawi script (c. 925-1250)	38
1. Inscriptions of East Java (c. 910-947)	38
2. Inscriptions of Airlangga (1019-1042)	39
3. Inscriptions of the Kaḍiri period (c. 1100-1220)	40
4. Kaḍiri Quadrate script	42
5. Script of Bali, Sunda and South Sumatra	42

IV. Javanese and regional scripts of the Majapahit period (c. 1250-1450)	47
1. East Javanese Copper Plates (c. 1250-1350)	48
2. East Javanese Inscriptions from c. 1350 to 1450	50
3. Oldest extant Manuscripts	53
4. The inscriptions of Western Java	54
5. The script of Central Sumatra	56
6. Northern Sumatra	58
7. Bali, Madura and Sumbawa	59
Appendix: Later Nāgarī	60
V. Indonesian scripts from the middle of the fifteenth century—Foreign scripts	63
1. Inscriptions of the second half of the fifteenth century	63
2. Inscriptions from Central Java	64
3. Tamil script	68
4. Arabic script	70
Conclusion	72
Appendix	74
Bibliography	80
Index	83
List of plates	87
Plates I-IX	at the end of the book

PREFACE

It was not without hesitation that I accepted to contribute a work on Indonesian palaeography to the great *Handbuch der Orientalistik*. The problems and lacunae in our knowledge are still such that any attempt at composing a coherent account of the history of script in ancient Indonesia, as well as the Malay peninsula and the Philippines, is beset with formidable difficulties. The reason why I at last agreed to make this attempt is the hope that it may stimulate others to further research in this field. In addition, there is at present no other survey of Indonesian palaeography available, as the only existing detailed survey dates back to 1882!

This work could never even have been contemplated without the help and encouragement of Professor Th. P. Galestin of the State University, Leiden, Netherlands, who generously put the collections of photographs and estampages of inscriptions, kept at the Kern Institute, at my disposal. It is a great pleasure for me to express my sincere gratitude to him and to the staff of the Kern Institute, in particular its librarian-cum-secretary, Miss de Beurs.

I am particularly grateful to the *Rijksmuseum voor Volkenkunde* and its Director, Professor P. H. Pott, for the beautiful reproductions of many samples of Indonesian scripts.

This work is to a considerable extent based on the knowledge and experience I acquired during the years when I worked as an epigraphist in the Archaeological Service (now the *Lembaga Purbakala dan Peninggalan Nasional*) of the Republic of Indonesia. I hope that those with whom I had the pleasure to work in those years, especially Professor A. J. Bernet Kempers, Professor Soekmono and Professor M. Buchari, may find this work not entirely unworthy of the great tradition of the Service.

Finally, I may express my gratitude to the staff of the Royal Institute at Leiden (*Koninklijk Instituut voor de Taal-, Land- en Volkenkunde*) for all the help I received during my frequent visits to the Library.

Kew Gardens, 31st May, 1974.

ABBREVIATIONS

Acta Orient.	Acta Orientalia
A.N.U.	Australian National University
Art. As.	Artibus Asiae
B.E.F.O.	Bulletin de l'École Française d'Extrême-Orient
Bull. Soc. Ét. Indoch.	Bulletin de la Société d'Études Indochinoises
Bijdr. Kon. Inst.	Bijdragen tot de Taal-, Land- en Volkenkunde
edn.	edition
Epigr. Ind.	Epigraphia Indica
Fed. Mus. Journ.	Federation Museums Journal
Hand.	Handelingen
Ind. Antiqu.	Indian Antiquary
Inscr. Ned.-Indië	Inscriptions van Nederlandsch-Indië
Jaarb. Bat. Gen.	Jaarboek van het Koninklijk Bataviaasch Genootschap
Journ. As. Soc. Bengal	Journal of the Asiatic Society of Bengal
Journ. Mal. Br. R.A.S.	Journal of the Malay Branch of the Royal Asiatic Society
Journ. Str. Br. R.A.S.	Journal of the Straits Branch of the Royal Asiatic Society
J.R.A.S.	Journal of the Royal Asiatic Society
kab.	kabupaten (regency)
kac.	kacamatan (sub-district)
kar.	karesidenan (residence)
kaw.	kawedanan (district)
K.O.	A. B. Cohen Stuart, <i>Kawi Oorkonden</i> , 1875.
Kem. P. P. & K.	Kementerian Pendidikan Pengajaran dan Kebudayaan
Med. Kon. Ak. Wet.	Mededelingen van de Koninklijke Akademie van Wetenschappen
Mem. Arch. Surv. India	Memoirs of the Archaeological Survey of India
Mus.	Museum
Not. Bat. Gen.	Notulen van het Koninklijk Bataviaasch Genootschap
Oudh. Versl.	Oudheidkundig Verslag
Oudj. Oorkonden	Oudjavaansche Oorkonden
Pras. Indon.	Prasasti Indonesia
Publ. E.F.E.O.	Publications de l'École Française d'Extrême-Orient
Publ. Oudh. Dienst	Publicaties van den Oudheidkundige Dienst
Rapp. Oudh. Comm.	Rapporten van de Oudheidkundige Commissie
Rapp. Oudh. Dienst	Rapporten van den Oudheidkundigen Dienst
Tijdschr. Bat. Gen.	Tijdschr. voor Indische Taal-, Land- en Volkenkunde
Verh.	Verhandelingen
Verh. Kon. Ak. Wet.	Verhandelingen van de Koninklijke Akademie van Wetenschappen
Verspr. Geschr.	Verspreide Geschriften

INTRODUCTION

In contrast to the remarkable progress achieved in many fields of Indonesian studies palaeography has been strangely neglected. It seems almost incredible that the only existing survey of Indonesian scripts was written nearly a century ago, viz. K. F. Holle, *Tabel van Oud- en Nieuw-Indische Alphabetten*, Batavia-'s Hage (i.e. Jakarta - 's-Gravenhage) 1882. Since then palaeography has been studied by a number of scholars, not for its own sake, it seems, but rather as an auxiliary technique for reading and approximately dating inscriptions or other texts. Some palaeographical notes, sometimes elaborated into detailed discussions, are a regular feature of many introductions to publications of inscriptions. Their authors displayed excellent practical knowledge of ancient Indonesian script but had, unfortunately, no opportunity of composing a systematic account. Some of the most important of these palaeographical notes are listed in the bibliography. Apart from such notes we possess a brief but useful and reliable survey by L.-C. Damais, with some comparative tables of South East Asian scripts for five *akṣaras*.¹

The present account is intended as a serious attempt to describe the known Indonesian scripts before c. A.D. 1500 and to determine the relationships between the different types in order to arrive at a tentative history of writing in the Indonesian archipelago. The importance of the study of Indonesian palaeography hardly requires explanation. Writing plays a vital role in all higher civilizations. In Indonesia, writing has been in use for at least fifteen centuries, i.e. as long as in western Europe, while the period covered in this study is more than a thousand years long. The history of writing during such a long period, if it can be reconstructed to a considerable extent, must be of great value both for its own sake and in conjunction with the political, economic, and cultural history of the areas where it was used. Some of these points will be elaborated in the course of this study but a few principles may be briefly mentioned here. Firstly, the relation between script and political history is of a complicated nature. The spread of a particular type of script is not an automatic consequence of political expansion but is due to the mobility of scribes. On the other hand, such mobility is greatly enhanced, if not conditioned, by some form of central control providing the roads and

¹ L.-C. Damais, 'Les écritures d'origine indienne en Indonésie et dans le Sud-Est Asiatique continental', *Bull. Soc. Ét. Indoch.*, Nouv. Sér., XXX, 1955, pp. 365-382.

security for regular communications. Secondly, the techniques applied in inscribing large stones, bronze plaques, palm leaves, bamboo and other writing materials may throw light upon some aspects of early South East Asian technology. Thirdly, the style and sometimes the aesthetic qualities of ancient writing—in a time when the writing of documents that were meant to last was a form of art—may reflect or elucidate tendencies noticeable in other fields of civilization such as art and architecture or even literature.

Apart from its intrinsic value the study of the history of writing in Indonesia is of immediate importance to the historian and philologist as an auxiliary discipline. Quite a few inscriptions are undated, while there are many more with dates which present difficulties of reading or interpretation. In such cases palaeography is of invaluable assistance in any attempt at placing the document in its correct chronological context. In other cases the type and style of a document may prove, after palaeographical analysis, to be inconsistent with the date mentioned in the document itself; in such cases it has to be concluded that the document cannot be authentic in the form in which it has come down to us: either a later copy of an original text (though normally with adjustments in form and contents and often with mistakes) or even a falsification. It is true that palaeography is rarely conclusive by itself in such cases but in association with other lines of approach—such as the analysis of language, style, titles given to authorities etc.—palaeography may become a vital link in the argument as a whole.

Finally, it may not be superfluous to state the obvious: palaeography is a necessary prerequisite for the correct reading of epigraphic and other ancient texts. For the correct reading of inscriptions a general knowledge of ancient script is not sufficient. In fact, some of the published transcriptions contain curious mistakes due, apparently, to insufficient acquaintance with some peculiarities of Old Javanese script.² In addition, very precise knowledge of the details of writing in each particular period is indispensable for the correct reading of partially damaged or worn letters. It may appear quite hazardous to the layman to present a reading of almost completely worn or severely damaged *akṣaras*, but it is in many

² It is easy to compile a long list of mistakes made by epigraphists owing not to oversight but to insufficient palaeographic experience. Even such an excellent and accurate scholar as W. F. Stutterheim, whose transcriptions are generally models of precision, made curious mistakes. Thus, in his edition of what he rightly called 'an important inscription from the Kédu' (*Tijdschr. Bat. Gen.*, LXVII, 1927, pp. 172-215) one reads in B-16: *mati tanpa wacu bratan*, but the correct reading is *mati tanpa kawuitan*. Stutterheim apparently failed to recognize *i-*, expressed as *i*, to which a *cakra*-like curve is attached.

cases possible to identify a particular letter beyond reasonable doubt if the remaining portion is quite characteristic of that particular letter,—taking, of course, the special features of the script at the time and place of the inscription into consideration. In many more cases precise knowledge of palaeography may not by itself enable the palaeographist to identify a particular *akṣara* but it may narrow the possibilities down to such a limited number that a correct choice can be made on other grounds. Thus, both Sanskrit and all Indonesian languages allow only a limited number of consonants at the end of a word, Old Javanese, for instance, only *k*, *g*, *t*, *d*, *p*, *b*, *n*, *m*, *y* (rarely), *r* and *s*, as well as the *visarga* and *anusvāra*.³ Consonant clusters are not permitted. If therefore a word appears to end in what *could* be *g*, *bh*, *ś*, *w*, or *th* (i.e. the *akṣara* with the sign indicating the absence of a vowel) the choice must necessarily be *g*, the only final permitted in Old Javanese. This is a case which actually occurs. There are also limitations at the beginning and in the middle of words, especially with regard to clusters.

A much more frequently applied method, which carries however certain dangers, is that of excluding certain possibilities on account of the context and opting for one that makes sense. It is true that in actual practice most epigraphists unconsciously work in this manner and usually start scrutinizing the minute details only if there is more than one possibility. Despite the obvious hazards it would be unrealistic to condemn such a method, especially on account of the stereotyped nature of some parts of the inscriptions. Caution and self-discipline must determine the limit to which one is allowed to go.

The present work is not intended as an exhaustive account of all known scripts in ancient Indonesia with charts and lists. Nor is this work primarily intended as an introduction to the study of ancient Indonesian scripts. The old work by K. F. Holle, mentioned at the beginning of this study, contains no fewer than fifty pages of tables with reproductions of the different individual letters and conjuncts as they were written through the ages. Though reproduced by hand they are generally accurate and are indispensable as a means of familiarizing oneself with the different types of script used in the Indonesian archipelago. Though numerous new inscriptions have come to light after 1882 these would not normally cause any difficulties of reading with the help of Holle's tables. What has, however, never hitherto been attempted is the presentation of a detailed

³ The *anusvāra* mark, written as a dot or tiny circle over the *akṣara* to which it belongs, is used to indicate *na* at the end of a word or syllable. In a few cases, however, the mark is used to indicate final *-m* if the next word starts with a consonant; this is, of course an imitation of Sanskrit spelling. There are also a few cases where final *-n* is expressed by the *akṣara* *na* with *virāma*.

analysis of the development of writing in Indonesia.⁴ The nature of the sources, almost only inscriptions except for a few manuscripts in the last century (or perhaps the last two centuries) of the period covered in this study, poses strict limitations. A different, but far more serious, limitation is due to the fact that nearly all the sources come from Central and East Java and from Bali with only a small number of inscriptions, often separated from each other by many centuries, from West Java and Sumatra, and hardly any material from the other islands. A coherent history of writing can therefore be given only for Central and East Java,⁵ whereas for all the other areas there is at best some occasional information available, which is most useful for comparison but leaves many questions unanswered.

The terminology used in describing Asian scripts is often inconsistent, if not positively misleading. In this respect, as in others, A. H. Dani's *Indian Palaeography*, 1963, marks an enormous advance compared with earlier studies. One of the most valuable parts of this work is the 'Glossary of Terms' in the Appendix, pp. 273-289. By the addition of drawings the precise meaning of all terms is unambiguously defined. The present writer gratefully acknowledges his debt towards Dani's study and has attempted to be equally precise.

One of the greatest merits of Dani's work is the fact that this scholar has drawn attention to the importance of the technique of writing, in particular the choice of tools and writing materials, as well as the manner in which these were used. Our knowledge of ancient writing is almost exclusively based on the analysis of texts engraved in stone or metal, the only writing materials that could survive more than six centuries of the equatorial climate of maritime South East Asia.⁶ Those who engraved the inscriptions in stone or metal were skilled craftsmen—stone-cutters or metal-workers, as the case might be—but they were not the men who drafted the texts of the inscriptions, mostly royal charters. This was the task of learned clerks who had received thorough training in the legal

⁴ Palaeography has also been neglected in other parts of South East Asia, except for Thailand, for which we possess the admirable work by G. Cœdès, *A History of Thai Writing*, Bangkok 1924 and some studies of the relatively modern scripts of Sumatra and of the Philippines.

⁵ In fact, almost all known inscriptions of Central Java are dated before 925 and after 1450 A.D., those of East Java between 891 and 1486. There are only very few East Javanese inscriptions dated before 891, in particular the Dinoyo inscription of A.D. 760 and an undated rock inscription, which palaeographically can be assigned to about the same period (see W. F. Stutterheim, 'De Oudste Inscriptie van Oost Java?', *Bijdr. Kon. Inst.*, XCV, 1937, pp. 397-401). There are therefore only two brief periods of overlap, during which we possess inscriptions from both Central and Eastern Java.

⁶ The oldest extant Indonesian manuscripts on palm leaf (*lontar*) have been, on palaeographical and other considerations, dated back to the fourteenth century A.D. See chapter IV, section 3.

jargon and the 'officialese' of those times. Most charters were legal documents by virtue of which important privileges were granted to the donees, almost always for the benefit of some religious foundation. These edicts must therefore have been drafted in the royal chancery before they were ordered to be written down on stone or metal. The aim of the donor (usually the king) in authorizing the use of such lasting materials was to ensure that the privileges might last till the end of the world (*ing dlāha ning dlāha*), as it is often formulated in the Old Javanese inscriptions.⁷ Although the precise machinery is still imperfectly known it is clear that the royal edict, after being enunciated by the king *in nucleo*, probably in council,⁸ subsequently passed down the hierarchy. During this, no doubt often lengthy, process the king's order was formulated in the correct shape for such edicts, undergoing adjustments, corrections and modifications, before the document was finally handed to the craftsman who was to give it its lasting shape.

It is not known in what form the craftsmen received the royal edict, but it seems likely that it was written down on palm leaf, either engraved with a stylus (and soot or other black powder rubbed into the incised letters to render the text more easily legible) or, in other periods or on other occasions, painted on palm leaf, cloth or tree bark by means of a fine-edged brush. In the former case the lettering would normally be thin and monoline, in the latter, on the other hand, it would show contrasted strokes, reflecting the pressure exerted on the brush and the varying angle at which the brush was held, as well as characteristic dots at the spots where the brush was lifted or put down on the writing material. The stone-cutter or copper-smith who produced the final result copied or imitated as accurately as possible all the details of the example which he, no doubt, held or put down in front of him.⁹ How accurately the final result corresponded to the original text depended on the quality of the stone or metal, the adequacy of the writing tool and, above all, on the skill of the craftsman.

⁷ These considerations apply to almost all of the Old Javanese and Old Balinese inscriptions, which are charters concerned with the grant of land to religious foundations on a privileged basis.

⁸ Apart from the regular formula stating that His Majesty the King ordered such and such we sometimes find more elaborate statements in which the king's considerations are explained. In some rare cases the personal involvement of the king is made clear by an actual quotation of His Majesty's words. Thus, we read in an inscription of Dakṣa (c. A.D. 910-919): 'H.M. the King, however, replied: "What reason is there to modify the privilege granted by the earlier King, deified at Pastika, to the sanctuary at Wintang Mas? The duty of (those in charge of Wintang Mas) is towards Lord Haricandana, every three years without fail". Such were the words of H. M. the King.' (K.O. XX, 11. 3-5; R. Ng. Poerbatjaraka, *Agastya in den Archipel*, 1926, pp. 74-80).

⁹ Cf. F. D. K. Bosch, 'De inscriptie van Keloerak', *Tijdschr. Bat. Gen.*, LXVIII, 1928, pp. 1-64, in particular p. 11.

The inscriptions themselves, though often stating that the royal order was 'respectfully received' (*tinaḍah*) by certain high dignitaries and subsequently 'descended' (*umingsor*) upon lower officials, give no information about the actual manner in which the writing of the edict was carried out. As might have been expected, the craftsman responsible for the final result is not mentioned but the name or names and titles of clerks are given in many cases. The most common designation is as *citralekha*, a Sanskrit word not found in Indian inscriptions,¹⁰ although *citraka* is found once. The word does not seem to occur in this precise form in Sanskrit literature, but words like *citralkhita*, *citrakha* and *citralkhana* do occur and all suggest painting rather than writing, as the primary association of *citra* is that of colour. The term could therefore well denote the scribe who wrote the *aksara* forms with a little brush, as, for instance, in the *Kuñjarakarṇa* manuscript.¹¹ The other term, *likhitapatra*,¹² emphasizes the use of leaves (*pattra*), presumably prepared leaves of the *lontar* palm, as writing material but gives no clue about the tool used for engraving. We have to infer that from the shape of the final result, the shape of the lettering of the inscriptions. In general one gets the impression that the thin, monoline script with its rounded-off angles of the Early Kawi style of Central Java (c. 750-925 A.D.) reflects writing on sheets of palm leaf, cloth or tree bark by means of a sharp stylus, whereas the Later Kawi of East Java (925-1500 A.D.) shows the more decorative painted style, often clearly recalling brush work.¹³

¹⁰ At least not recorded by D. C. Sircar, *Indian Epigraphical Glossary*, 1966, nor found in any of the dictionaries.

¹¹ H. Kern, 'De Legende van Kuñjarakarṇa', *Verh. Kon. Ak. Wet.*, Afd. Lett., N.R., III, No. 3, 1901, p. 4; Th. Pigeaud, *Literature of Java*, I: Synopsis of Javanese Literature, 900-1900 A.D., 1967, p. 71; II, 1968, p. 94 (LOr. 2266); III, 1970, pp. 56 f. and plate 22 on p. 21.

¹² The word is often spelt *likhitapātra* but this is, of course, merely an incorrect spelling. *Likhita*, in some cases, may be an abbreviated form of this term.

¹³ Inscriptions in red, black and white paint have been found on several Old Javanese monuments. In most cases only vague traces remain but in others, especially where the inscriptions were sheltered from sun and rain, the inscriptions are still partly legible. Thus, there are more than fifty brief inscriptions in red or white paint on the Loro Jonggrang temples at Prambanan (Kalasan district, Yogyakarta). They are all votive inscriptions recording the names and titles of donors and are of the same kind as the engraved inscriptions of Candi Plaosan Lor (see J. G. de Casparis, 'Short Inscriptions from Tjanḍi Plaosan-Lor', *Berita Dinas Purbakala*, No. 4, 1958, pp. 1-36, Plates I-IX.). Some of these inscriptions, however, were indications addressed to the craftsmen and artists working on the monuments, see N. J. Krom, *Inleiding tot de Hindoe-Javaansche Kunst*,² I, 1923, pp. 487 f., but this is based on Krom's readings which I cannot confirm. Thus, Krom's reading *pati hyang*, 'image of a god' is probably incorrect; I am sure that the correct reading is *palar = hyang*, which is a title of a high official and no doubt indicates that this particular part of the temple was built or decorated at the expense of this official, who by these means acquired religious merit. Other inscriptions in paint were noticed by W. F. Stutterheim, 'Oudh. Aant. No. XXXIX: Tjanḍi Lara Djonggrang en Oost-Java', *Bijdr. Kon. Inst.* 90, 1933, pp. 267-270 and also *Djāwā*, XV, 1935, pp. 83-90, *Oudh. Versl.* 1937, pp. 16 f. and *Oudh. Versl.* 1940, p. 29.—A detailed study of these and other inscriptions in paint is most desirable. Their palaeography seems to confirm the view brought forward in the text, as the letters show contrasted strokes and elaborate 'painted' serifs.

In the last part of this introduction it may be useful to set out briefly some of the principles followed in the discussion of the history of script in Indonesia.

It is generally agreed that script is essentially a system of visible symbols used for communication, especially in the cases where more direct forms of communication are impossible or less desirable. For a written message can be carried over great distances and may even keep its power of communication after centuries. In comparison with the spoken word writing is therefore less bound to the limitations of time and place, at least if durable materials are used. It is likely that the clerks who drafted the royal charters, as well as the stone-cutters and copper-smiths who engraved these edicts on durable materials were aware that the final result of their efforts would last for the foreseeable future, just as the royal charter itself was meant to lay down rules for all time.¹⁴

This awareness of creating something that would last explains why the drafting and engraving of inscriptions was generally carried out with no less care and devotion as the carving of images and the building of temples. This devotion is reflected in the use in many inscriptions of calligraphic writing which transforms script into a kind of decorative art.¹⁵

It is, however, important to emphasize that aesthetic considerations are always subordinated to the chief function of script as a means of communication. In other words, the possibility of embellishments is limited by the need for clarity, for otherwise the basic function of script, that of communication, would suffer. Although this is allowed to happen in some curious cases¹⁶ this is very exceptional and does not affect the general principle. For the basic implication of the need for clarity in communication is that all the symbols used in writing should be unequi-

¹⁴ The following passage in a copper-plate inscription dated 1296, edited and translated by R. Ng. Poerbatjara in *Inscr. Ned.-Indië*, I, 1940, pp. 33-49, may emphasize this aspect of the inscriptions:—‘This (viz. the considerations mentioned earlier) is the reason why the supreme favour of His Majesty the King descended upon Apañji Patipati, viz. the royal consent that Sukhāmṛ̥ta shall be restored as a freehold—in the name of Apañji Patipati as a hereditary privilege also of all the descendants of Apañji Patipati at present and in the future till the remotest future (*mne hlem tha ri dlāha ning dlāha*). They (Apañji Patipati and his descendants) will keep the Sacred Royal Order (*sang hyang ajñā haji*) as evidence (lit. as physical protection, *atmarakṣa*): this charter sealed with the emblem (*lāñcana*) of Krētarājasa Jayawardhana, to be written down on one of three kinds of material: bronze, rubbing (*ripta*, perhaps *lontar*), or stone; to be worshipped once a year, placed under a yellow parasol, in the accompaniment of music as though it were the King himself.’ (pl. 10a-6 to 10b-5, freely translated). Similar passages are found in other inscriptions.

¹⁵ This includes what Dani (*op. cit.*, p. 114) describes as a taste for ornamentation.

¹⁶ The best example is Kadiri Quadrate Script, see chapter III, section 4. Here the letters sometimes become real puzzles, but this is, of course, intentional and forms part of a sophisticated court civilization in which entire poetic compositions are given dual interpretations: a mythical and a contemporary meaning. In a similar way dates can be expressed by means of words suggesting certain numerals.

vocally differentiated. This is, however, an ideal which is never fully achieved, neither in modern handwriting nor in ancient inscriptions.¹⁷ In actual practice the need for clear distinction between symbols in writing is greatest if it concerns symbols of frequent occurrence in similar contexts. If, on the other hand, one of a pair of letters occurs only in a few words of foreign origin, or only in a special context there is little danger of misunderstanding even if the letter shapes are very similar.¹⁸ In such cases similarity between letters may persist for long periods.

This need for unambiguous distinction between common letters apparently provides one of the most powerful motives for change. Some examples will be given in the sequel. Anticipating a more detailed discussion (pp. 22 ff.) the complicated relationships between the *ta*, *na* and *ra* in Pallava and Kawi script may be briefly mentioned by way of illustration. In Early Pallava the *ta* and *na* are distinguished only by the shape of the loop: more upright in the case of *ta* and flatter for *na*. In Later Pallava and in Early Kawi the loop of the *ta* grows whereas that of the *na* is reduced to a tiny loop at the base line or disappears altogether with an angular connexion to the vertical just above the base line. It is this detail that then becomes the only mark distinguishing the *na* from the *ra* (after the latter had lost its 'tail' which was an integral part of the *akṣara* in Early Pallava). Although the distinctive lower part of the *na* would normally be sufficient for its identification difficulties may arise especially with subscribed -*u*: *nu* and *ru* are almost indistinguishable in Early Kawi.¹⁹ Both are fairly frequently used, so that their similarity may give rise to ambiguity, e.g. in names. This is probably one of the reasons why the loop of the *na* is re-introduced in Later Kawi script of eastern Java.²⁰ The *ta* had, in the meantime, developed in such a manner that there was no more risk of confusion with *na*.

This example is one of a number that may illustrate the complicated relationships between the different *akṣaras*, which are each elements in a system. It is therefore wrong to look at the development of individual

¹⁷ Ambiguities may arise especially in combinations with vowel marks, e.g. *ta* and *wā* are similar in some periods. Of individual letters *ga* and *bha*, as well as *wa* and *ca* are sometimes difficult to distinguish.

¹⁸ Thus, the *da* and *dha* are similar and are often confounded especially in the later phases of Old Javanese script. The former is a relatively infrequently used phoneme in Old Javanese and not found in all positions (e.g. not at the end of a word); the latter is entirely limited to a few words of Sanskrit origin.

¹⁹ This is because the -*u* is always attached to the *ra* just above the base line so as to avoid the writing of one continuous vertical.

²⁰ The return of the loop may also be partly due to the style of writing in East Javanese Kawi which often imitates brush work. Both the looped and more angular *na* occur in different styles of Later Kawi.

letters in isolation. The example also shows that within the system as a whole there are little groups of usually no more than two or three letters which show a particularly close relationship. In historical perspective this relationship shows itself to the palaeographist in two forms: either as a temporary phase creating a kind of tension which leads to a gradual divergence of the signs which once constituted a 'group' (as *ta* and *na* in the example given above), or, less frequently, as a lasting parallelism. The most striking case is that of *pa* and *sa*. Already in Aśokan Brāhmī script the *sa* is written as a *pa* with a curved horizontal stroke; the same is the case in Pallava and Kawi script, even in modern Javanese script. Such a lasting parallelism is, however, rare; in most other cases it is limited to a certain period. Further examples of this kind of interaction will be given in the sections dealing with particular periods and areas.

The above-mentioned examples show that the symbols used in writing constitute a system, in so far as they stand in relation to each other and can be seen to interact in their development in course of time. It is, however, an irregular system in which the relation between its elements is subject to change. The causes of change are partly tensions within the system, partly changes in techniques of writing (especially the use of different tools and materials), partly changes in taste (the aesthetic considerations considered earlier). In addition there is a fourth factor of importance, viz. a tendency towards simplification due to a general human inclination to avoid unnecessary effort. Its precise implications are, however, difficult to define as they depend on the one hand on the tools and materials for writing, on the other on the circumstances in which script was used. As to the tools and materials it is clear that ease of writing favours the prevalence of thin and monoline letters if the scribe uses a sharp stylus on bamboo or palm leaf. There also tends to be a preference for descending over ascending strokes and for linear or hook-like serifs. If, on the other hand, the letters are painted on a flat surface with a brush there naturally arise variations in thickness of the stroke with certain characteristic shapes at the points where the brush is lifted or put down, or where the direction of the stroke changes. There also arise clear differences between vertical and horizontal strokes. It is true that ease of writing or simplification is not likely to have been an important consideration for the scribes and artisans who looked after the royal edicts. On the other hand, ease and speed of writing may have been of importance for many others who used script.²¹ The current style of

²¹ We have no means of finding out or even estimating how wide-spread the knowledge of script was in ancient Indonesia. *A priori* reasoning, implying an extremely low literacy rate in ancient

writing must sooner or later have influenced the more formal style of the scribes. There are a number of changes in the history of script in Indonesia which can be satisfactorily explained as the result of a tendency towards simplification. The style of Later Pallava as compared with Early Pallava, as well as that of Early Kawi as compared with Later Pallava illustrate this tendency. Thus, the elimination of elaborate curves and of the tails of some *akṣaras*, always in cases where such parts no longer had a clear function, can be interpreted in this manner.

In conclusion it can be stated that every type of script is a compromise between the primary function of communication and different tendencies such as embellishment and simplification. The relative strength with which these tendencies make themselves felt depends on the period, on the area and on other factors. In some cases it is possible to distinguish in the form of the script similar tendencies as those noticeable in e.g. decorative art or literature. Thus, the elegant script of the Kadiri period in Java seems to reflect the type of refined life of the Javanese court of this period which is suggested by the literature of the period. Similarly, the decorative script of the Majapahit period (chapter IV), in which the basic shapes of the letters are all but concealed by all kinds of flourishes, can be compared with some of the temple architecture in which the structural lines risk disappearing behind the luscious ornamentation.

In the light of the preceding discussion one may doubt whether it is desirable or indeed possible to give a basic shape of each *akṣara* in a given type of script and period. In modern science the principle of uncertainty is recognized: the very nature of our observations makes it impossible to determine the precise place of, for instance, a particular distant star but instead enables us to fix the place of that star within a narrow field. In a similar way it is impossible to determine the precise shape of an *akṣara*, which is a kind of ideal which can be approximated but not completely attained. In fact, every *akṣara* occurs in a number of variants: the range within which the *akṣara* ‘moves’. For this reason I have refrained from giving charts of *akṣara* forms copied by hand and so not only containing the inevitable inaccuracies but also implying an element of arbitrary choice between a number of variants. Instead of charts a selection of photographs, illustrating the different stages of the history of script in Indonesia, is presented in the tables I-X, while for a more detailed study the ‘Bibliography’ includes mainly books and articles with good illustrations. For those who require charts, for instance

Java because it was ‘still’ very low at the end of the nineteenth century, is inadmissible. This point will be taken up again in the ‘Conclusion’.

for learning to read ancient Indonesian scripts, Holle's work, mentioned at the beginning of this introduction, will prove indispensable.

Mainly for the sake of convenience the history of script in Indonesia has been divided into five periods, each (apart from the somewhat 'open-ended' chapter V) of between two and three-and-a-half centuries. As in history in general, periodization of the history of scripts involves the making of cuts in what is essentially a continuous development. Yet, the proposed divisions appear by no means arbitrary and facilitate the understanding of the evolution of Indonesian scripts. Subdivision of the chapters into geographical areas within the vast region where Indonesian scripts were used (including the southern part of the Malay Peninsula) would have been desirable but proved impracticable owing to the imbalance of the sources with almost all written materials originating from Central and Eastern Java as well as from Bali. Geographical subdivision of chapters has, however, been attempted wherever feasible.

Practical considerations again account for the choice of A.D. 1500 as the approximate end of this survey. Almost all the source materials before that date are inscriptions engraved in stone or metal with only one or two extant manuscripts, but after 1500 there are only few inscriptions but a wealth of manuscripts. As for Java and Bali, by far the richest source of manuscripts, the monumental work of Th. Pigeaud, *Literature of Java*, three volumes, The Hague, 1967-70, is full of learned discussions on Javanese, Balinese and Arabic script and gives, in volume III, a beautiful selection of illustrations. Also on Sumatra, Celebes and other islands, as well as on the Malay Peninsula much excellent work has been done but much more is required before the interrelationship of these scripts and their history can be established.²²

²² See the 'Bibliography' for further details.

CHAPTER ONE

INDONESIAN SCRIPTS BEFORE THE MIDDLE OF THE EIGHTH CENTURY

Compared with India and especially with China, writing developed in South East Asia at a late stage, viz. not before the early centuries of the Christian era,—in fact at about the same time as in western Europe. The earliest known examples of writing in South East Asia are a number of brief inscriptions on seals, entaglios, rings and similar precious objects, discovered at the ancient site of Oc-eo, not far from Rach-gia near the west coast of the Ca-mao peninsula in southern Vietnam. As Oc-eo was an important trading centre and most of the objects discovered there originate from elsewhere, often from the Indian subcontinent, there is no proof that the seals etc. were actually inscribed in South East Asia. For this reason this script cannot properly be classified as South East Asian. On the other hand, the presence of these inscriptions is not without interest for the early development of writing in the area, so that a brief discussion would not be out of place.¹

All the known examples show different types of Indian *brāhmī* script datable, on the basis of a comparison with dated inscriptions in India, to the period from the second to the fifth century A.D. The earliest specimens are in a script that is strongly reminiscent of that of the Kuśāna inscriptions of (probably) the second century A.D., while the apparently latest inscriptions are in a kind of Gupta script. As regional differences are not yet pronounced in India in this period it is not possible to determine the precise geographical origin of this script, except in so far as it seems clear that its closest affinity is with central, not with northern nor with southern India.²

The earliest inscription of some length in South East Asia, the much

¹ L. Malleret, *L'Archéologie du Delta du Mékong. III: La Culture du Fou-nan* (Publ. E.F.E.O. XLIII), 1962, pp. 308-314.

² Cf. especially the palaeographical analysis by J. Filliozat in L. Malleret, *op. cit.*, p. 312, and G. Coëdès, 'Fouilles en Cochinchine. Le site de Go Oc-éo, ancien port du royaume de Fou-nan', *B.E.F.E.O.*, XXXI, pp. 2-8. A number of inscriptions, e.g. *apramāda* (No. 1261 on plate LXIII of Malleret, vol. III) show the square headmarks characteristic of the Vākātaka and other inscriptions of Central India of the 5th-6th centuries, but also found in some of the Gupta seals of Nālandā, e.g. the two of Kumāra Gupta III, illustrated in Hirananda Sastri, 'Nālandā and its epigraphical material'. *Mem. Arch. Surv. India*, 66, 1942, plate VIII, d and e. On the other hand, a few Oc-éo seals show triangular headmarks ('nail heads'), as e.g. *dātavyaṁ* (Malleret, No. 1258), as do most North Indian Gupta inscriptions. Some caution is therefore necessary.

discussed Vo-can inscription (Nha-trang district of Vietnam),³ is written in a southern type of script which can be compared with that of the Ikṣvāku inscriptions of Andhra Pradesh. It has been dated back to the third century A.D.⁴

Apart from a brief inscription on a cornaline seal from Kuala Sēlingsing, Kēdah, Malaysia, similar to the Oc-eo seals,⁵ the oldest inscriptions of the Indonesian archipelago belong to a large group of inscriptions including also a considerable number of inscriptions of mainland South East Asia, in particular in the Malay Peninsula, southern Thailand, Cambodia and southern Vietnam. In earlier times, the script in which these inscriptions are written was usually called Vēṅgi script on account of its similarities with that found in inscriptions around ancient Vēṅgi or Vēṅgipura in the Godāvarī delta of present Andhra Pradesh.⁶ In 1918, however, J. Ph. Vogel concluded in a very detailed and scholarly article that the origin of this early South East Asian script was the Pallava script used in numerous inscriptions of kings of the dynasty of this name. These inscriptions are dated from the middle of the fourth century A.D. and have been found in different parts of southern India from the Guntur district of Andhra Pradesh in the north to the Bellary district of Mysore in the west and to south of Kāñci (Conjeevaram) in the south. Although this script was also used in some inscriptions of Ceylon and in inscriptions of the Kadambas of Kuntala (northern Mysore)⁷ there can be no doubt that it was most closely associated with the Pallavas, so that its use outside the Pallava kingdom should be attributed to strong Pallava influence in such areas.⁸ The term Pallava script is therefore retained in this study.

No attempt will be made to determine the precise relationship between the different types of Pallava script in South India, Ceylon, mainland

³ See the bibliography in G. Coedès, *Les États Hindouisés d'Indochine et d'Indonésie*, third ed., 1964, note 3 to p. 81. After that the whole inscription has been re-edited with a detailed discussion also of the palaeography by J. Filliozat, 'L'Inscription dite de "Vō-canhh"', *B.E.F.E.O.*, LV, 1969, pp. 107-116, with beautiful photographs, followed by an article by Claude Jacques, 'Notes sur la stèle de Vō-canhh', *ibid.*, pp. 117-124.

⁴ The palaeographical arguments are confirmed by the identification of the king mentioned in the Vo-canhh inscription with a ruler of Fu-nan mentioned by the Chinese in the first half of the third century. See Coedès, *États Hindouisés*, p. 82.

⁵ Again cf. Coedès, *États Hindouisés*, p. 101 and the literature there mentioned. A good photograph of both the seal and its impression can be seen in B. Ch. Chhabra, *Expansion of Indo-Aryan Culture*, 1965, plate 5, fig. 3 and fig. 4.

⁶ H. Kern, *Verspreide Geschriften*, VII, 1917, pp. 8 f. (reprint of an article originally published in 1877).

⁷ D. C. Sircar, *Select Inscriptions*, 2nd ed., 1965, note 1 to p. 501.

⁸ J. Ph. Vogel, 'The yūpa inscriptions of King Mūlavarma from Koetei (East Borneo)', *Bijdr. Kon. Inst.*, LXXIV, 1918, pp. 167-232 (with three plates).

South East Asia and Indonesia. Until an up-to-date study is available, which includes a discussion of all the new material that has come to light during the past forty years, the studies of Vogel and Chhabra,⁹ supplemented by a considerable number of articles, must suffice. In the present context it is important to emphasize on the one hand the general similarity of the scripts over so wide an area, on the other the presence of innumerable differences in detail, reflecting not only the evolution of Pallava script in the course of four centuries but also the emergence of local varieties. Whereas the general similarity suggests the persistence of some kind of contact between the areas under consideration, the local varieties emphasize the importance of 'local genius':¹⁰ in this particular case revealed in the activities of South East Asian scribes who adapted the script to local needs or local taste.

In the Pallava script of the Indonesian archipelago two periods can be clearly distinguished with a dividing line in the beginning of the seventh century. The script of the early period, here named Early Pallava, shows features that can be related to scripts of southern India and Ceylon in inscriptions from the third to the fifth century A.D. The Later Pallava script of the Archipelago, however, foreshadows in many of its details the Early Kawi script as known from predominantly Old Javanese inscriptions from about the middle of the eighth century.

A. EARLY PALLAVA SCRIPT

1. Kutai Inscriptions. It is generally agreed that the oldest known inscriptions of the Indonesian archipelago are seven inscriptions on stone pillars (described as *yūpas*, 'sacrificial posts' in the inscriptions themselves) from the Mahakam delta in East Kalimantan (formerly called East Borneo) in the area called Kutai (or Koetei in the older Dutch transcription). The name Kutai is actually that of a Muslim sultanate (capital Samarinda) founded there around the end of the sixteenth century. Although there had been some doubt about the precise site of origin of the earliest known four inscribed *yūpas*, the later discovery of three more inscribed stones of exactly the same type strongly suggests that all the seven inscriptions originate from a place called Muarakaman

⁹ B. Ch. Chhabra, *Expansion of Indo-Aryan Culture*,² 1964, pp. 48-53.

¹⁰ This concept has been developed especially by H. G. Quaritch Wales, 'Culture Change in Greater India', *J.R.A.S.*, 1948, pp. 2-32; 'The Dong-son Genius and the Evolution of Cham Art', *J.R.A.S.*, 1949, pp. 34-45; *The Making of Greater India*, 2nd edn., 1961, especially pp. 17-20. Cf. also F. D. K. Bosch, 'Local Genius en Oud-Javaansche Kunst', *Med. Kon. Ak. Wet.*, Lett., N.R. XV, 1952, pp. 1-25.

at about twenty miles inland from the Makassar Straits near the confluence of two branches of the Mahakam river. The analysis of the script which follows is based on the studies of Vogel and Chhabra, whose conclusions can be summarized as follows (see plate I a):

a. The general shape of the letters is bold, perfectly aligned and slightly elongated. Although there are many long, straight vertical strokes and a few right angles the predominant impression left by this script is one of roundness and elegant curves. This characteristic is clearly reflected in the ligature *śri* at the very beginning of the sample. The *śa* retains only one angle at the right hand top but is, apart from that, everywhere rounded off. The *-r-* is semicircular (almost like a *U*), while the *-i* is expressed by the combination of a semicircular stroke rising from the right top and turning left, and a smaller spiral rising from the left-hand top and turning right.

b. A no less striking feature is the shape of the serif, usually described as a box-head or rather a square head-mark in the more precise terminology of A. H. Dani. Most *akṣaras* are provided with such a serif, which is placed on the left-hand vertical if the *akṣara* possesses more than one vertical stroke. The *ma*, however, is unique in having two serifs. Some *akṣaras* are, on the other hand, *sans-serif*, especially those with a horizontal top line, such as *ga*, *śa*, *ja*, *ba*, *kha*, *ṇa*, *ṇa*, *dha*, as well as *la*. Most subscript letters are also *sans-serif* except the *ma* retaining, in some cases, a serif in its left part. Also the final (vowel-less) *ma* is *sans-serif*.

c. The vowel-less *ma* (i.e. *-m*) is also of interest for another characteristic feature: it is written very small and below the level of the other *akṣaras*.¹¹

d. The *-i* is expressed by an elegant curve, rising from the top or, in the case of wide letters, from the right-hand end of the top line. If there is enough interlinear space the *-i* first runs straight up before turning to the left. The *-ī* is normally expressed in the manner indicated for *śri* above (*under a*) but, in one single case, viz. *jī* in line 5 of inscription C, it is expressed by one single spiral. There is no need to emphasize that these forms are archaic. The closest Indian parallel known to me is in the inscriptions of the Īkṣvākus of Andhra Pradesh, e.g. the Nāgārjunakonda inscription of Virapurusadatta, *passim*,¹² and, in mainland South East

¹¹ Cf. inscription A (Chhabra, op. cit., plate 8), line 10 (*bahuśuvarṇṇakam*) and line 11 (*yūpo yam*).

¹² J. Ph. Vogel, 'Prakrit Inscriptions from a Buddhist Site in Nāgārjunakonda', *Epigr. Ind.*, XX, 1912, plates I-V. Also reproduced by D. C. Sircar, *Select Inscriptions*, 2nd ed., 1965, plate XXXIX.

Asia, the Cho-dinh inscription of Bhadravarman of the end of the fourth century A.D.¹³

e. An important feature is the use of long verticals in the writing of *ra*, *ka*, -*ña* (i.e. subscript *ña*, the only form occurring in Mūlavarman's inscriptions) and (probably) *a*.¹⁴ These verticals extend well below the base line down to at least twice the normal *akṣara* height, and end in a small leftward pointing hook. Such downward extensions are also attached to other letters but have, in that case, the function of subscript *-u*, e.g. in *pu* (third *akṣara* from the right of line 4 of the example). This raises the question how *ku* and *ru* are expressed. The answer can be seen in the *akṣara* following the *pu* of the example: i.e. by the addition of a little downward-pointing hook to the long vertical just above the base line. In inscription C of the second group (Chhabra, plate 13) the hooks at the bottom end of the descending verticals of *ra*, *ka*, -*u* etc. show an upward extension, rising parallel and at a short distance of the descending stroke, but ending well below the base line. This is an innovation which becomes a regular feature of the inscriptions of West Java.

f. Whereas the above-mentioned letters naturally possess an element which, attached to other letters, assumes the function of *-u*, the *la* is naturally provided with an elegant rising curve which elsewhere functions as an *-i*. In the case of *li*, however, the curve, instead of rising vertically at first, has a sharp bend to the right before starting the leftward curve.¹⁵

g. Of the other individual letters the most interesting is *ña*, which can be described as a *na* with two little horizontal strokes going left and right from the top before bending down, somewhat similar therefore to *no*, but without *serif*. The same shape is found also in the Pūrṇavarman inscriptions, but the later type of Pallava shows an entirely different form of the *ña* with four verticals. The *ta* and *ña* are quite similar though usually distinguishable from one another: the loop of the *ta* is, as it were, standing, that of the *ña* lying. The *ya* is always triple, but the left stroke is much lower than the two other ones and is round instead of straight. Finally, the *ba* is notched in its left-hand vertical.

h. A curious detail, not found in other inscriptions as far as known to me, is the presence of a tiny inward-bending hook at the bottom of the left leg of the *ga* and *śa*. It is clearly visible in *śri* (line 1 and 3 of inscription

¹³ B. Ch. Chhabra, *op. cit.*, plate I, fig. 2.

¹⁴ Only one example occurs in Mūlavarman's inscriptions, viz. the initial letter of line 6 of inscription C (Chhabra, plate 13), which is not very well preserved.

¹⁵ See, for instance, inscription A (second group), Chhabra, plate 11, in *likhitāni* (line 3).

C of the first group in Chhabra's plate 10) and in *gni* (line 5 of inscription B of the first group, Chhabra, plate 9).

i. The -ā is normally expressed by a full-fledged vertical stroke but there are many cases where the shape is more archaic, staying 'suspended' well above the base line. The third leg of the *ha* is normally written as though it were this same stroke to indicate the -ā attached to a *pa*, i.e. not reaching down to the base line. On the other hand, the -ā, though in most cases attached to the right-hand vertical, is attached to the lefthand stroke with *pa*, *ha*, *sa*, *sa*, and to the middle stroke with *ya*. This mode of writing is clearly functional in the case of *pa*, where the ordinary -ā would yield a shape indistinguishable from *ha*. By analogy this mode of writing is also applied to the other above-mentioned letters, which all include the *pa* form. In a few cases, for instance in *khyāh* and *sāh* at the end of lines 3 and 4 respectively of the sample, the -ā is expressed by an oblique rising line running from the top of the letters. Finally, the -ā attached to the *ja* is expressed by about three-quarters of an ellipse rising from the middle horizontal and going around most of the letter. These and a few other modifications of the -ā are apparently due to the particular forms of the *akṣaras* to which it is attached, as well as to the need to avoid ambiguity. Most of these modified forms of the -ā persist in the later phases of this script.

In the light of the preceding analysis it may be proper to re-examine the dating of the Kutai inscriptions. Although precisely this type of writing has not been found outside East Kalimantan, there are a number of inscriptions with which the *yūpa* inscriptions show striking affinities. The two parallels of special interest, because they are datable, are the Cho-dinh Rock Inscription (Phu-yen District, Vietnam) of king Bhadra-varman dated probably towards the end of the fourth century,¹⁶ and the Ruvanvälisaya Pillar Inscription at Anurādhapura, Sri Lanka, of king Buddhadāsa or Bujas (c. A.D. 337-365). Both are written in quite similar, though by no means identical, scripts. Thus, the Cho-dinh inscription shows the same head-marks as the Kutai inscriptions, but the long verticals of the *ka*, *ra* etc. are perfectly straight and show no trace of the little hooks found in the Kutai inscriptions. The Ruvanvälisaya inscription, on the other hand, has something similar as the Kutai inscriptions but the hooks are rounded off. In other respects, however, the script of the Ruvanvälisaya inscription is quite different: it has notched head-marks

¹⁶ For the date of Bhadra-varman (I) of Campa cf. Jean Boisselier, 'La Statuaire du Champa', *Publ. E.F.E.O.*, LIV, 1963, pp. 18-21.

instead of box heads and also notched base lines, as in the inscriptions of Pūrṇavarman. In contrast, the shape of the *ha* in the Ruvanvälisaya inscription is definitely more archaic, as the third, descending, vertical stroke is still incomplete, ending near the top line. Such apparently contradictory indications are by no means rare in palaeographic comparisons between types of script used at places lying thousands of kilometres apart. Considered in conjunction with agreement in most other respects they are fully consistent with near-contemporaneity, albeit with a considerable margin on either side. A date around 400 A.D., as generally accepted, is therefore likely, although a somewhat earlier date, viz. the latter half of the fourth century, cannot be excluded.

2. *The inscriptions of Pūrṇavarman of Tārumā* in West Java are written in a type of Pallava which is essentially similar to that of East Kalimantan, but also shows a number of characteristic differences suggesting a somewhat later date than that of the Kutai inscriptions. The main differences are the following:

a. The most striking difference is the shape of the serifs. Unlike the square forms of the Kutai inscriptions we here see notched serifs which have, in a few cases, become almost linear.¹⁷

b. The *-i* is no longer an open curve as in Kutai (sub d) but has developed into a full circle. The *-i* consists of a similar circle with a little rising spiral inside, as in *śrī* at the beginning of line 2 of the sample. This is clearly an innovation, the chronological implications of which are not, however, clear. There are, in fact, some transitional forms in the Kutai inscriptions (e.g. *ti* in line 6 of Inscription B of the first group), and more clearly in South India in the Mayidavolu Copper-plate Inscription of Śivaskandavarman, the latter datable to the last quarter of the fourth century A.D. In Javanese script the circular *-i* has remained almost unchanged till the present time.

c. The third major difference from the Kutai inscriptions is the shape of the long vertical strokes of the *ka*, *ra*, *ñā*, and *-u*. The little hook at the bottom end of the strokes has now grown into a second, but rising, vertical, running parallel to the descending stroke and ending just under the base line (cf. *ri*, third from the left in the last line of the sample).

d. The base lines of the *pa*, *ba*, *ma*, *kha* and *ha* are not straight but

¹⁷ The notched serifs are especially clear in *va* (fourth from the left in line 4 of the illustration, or sixth from the left in line 2), the almost linear ones in the Jambu Inscription, see J. Ph. Vogel, 'The Earliest Sanskrit Inscriptions of Java', *Publ. Oudh. Dienst*, I, 1925, Plate 30, which is much clearer than Chhabra's reproduction. The Jambu inscription is later than the others as it was apparently incised after king Pūrṇavarman's death (Vogel, *art. cit.*, p. 25).

either wavy (in the Ci-Aruteun inscription) or notched (in the Jambu and Tugu inscriptions), in both cases entailing a broadening of the letters in relation to their height. This tendency is also noticeable in a few other letters, notably *na* (Tugu), *bha* and *dha*. The *ma* is also interesting for another reason. Whereas the Kutai inscriptions show a rather archaic shape often with emphasis on the diagonal elements (see e.g. *rmma* in the middle of line 1 of the sample) the Tārumā inscriptions have a broader *ma* which has also become asymmetrical with the left vertical stroke slanting but the right one running straight down. This is again more pronounced in the Jambu inscription than elsewhere.¹⁸

e. The Jambu Inscription is also of interest for the elegance of its script, certainly an achievement if one considers the hardness of the rough rock in which it is incised. The scribe has achieved a rare balance between the roundness especially of the many -*i*'s, the width of the letters in general and the verticality of the *ra*'s, -*u*'s and *ka*'s. Some slight anomalies, such as the -*a* which sometimes extends far below the base line and bends far to the left (like the -*r*), appear to be stylistic embellishments. The Jambu inscription also has a unique example of the *upadhmā-nīya*. This sign, very similar to that of the -*ɛ* in later Old Javanese inscriptions, occurs in the same shape also in inscriptions of the Pallava king Simhavarman, as has been pointed out by Vogel.¹⁹

This analysis, based on that of Vogel, confirms the accepted view that the Tārumā inscriptions are later than the Kutai inscriptions. It is, of course, impossible to quantify his difference, but the accepted dating in about the latter half of the fifth century A.D. is perfectly consistent with the observations.

3. *A few inscriptions from Kedah*, Malaysia, are written in a script that is very similar to that of Tārumā. The best known of these is inscribed on a stone slab from Bukit Mériam, near the mouth of the Sungai Měrbok which there forms a broad estuary. The stone, which is now preserved in the Indian Museum at Calcutta, also shows an interesting engraving of a stūpa. The script shows a special affinity with that of the Jambu inscription, notably in the elaborate and decorative shape of the subscript *ma*.²⁰

The rock inscriptions of Chērok Tokun, not far from Sungai Měrtajam,

¹⁸ This is again a feature foreshadowing the later evolution of the *ma*.

¹⁹ J. Ph. Vogel, *art. cit.*, p. 34, who refers the reader to Bühler's *Indische Palaeographie*, Table VII, column 46—XX.

²⁰ First published by Col. Low, *Journ. As. Soc. Beng.*, XVII, 1848, pp. 62-72, subsequently re-edited by H. Kern, *Verspr. Geschr.*, III, 1915, pp. 255-260 and again by B. Ch. Chhabra, *Expansion of Indo-Aryan Culture during Pallava Rule*, 2nd edn., 1964, pp. 20 f. and Plate III.

Prov. Wellesley, show various hands but seem, on the whole, roughly contemporary with the Tārumā inscriptions. The script of the Buddhist tablets of Sungai Bujang, Kēdah, however, does not appear to belong to this period,²¹ but must be considerably later. The long verticals of the *ka*, *ra* etc. have disappeared, and the *na* is of the four-legged shape; finally, the *virāma* does not reduce the size of the *akṣara* to which it is attached. This is clearly a form of Later Pallava of the same type as that used in the Śrīwijaya inscriptions of the last quarter of the seventh century.

In conclusion it may be stated that Early Pallava script is found in the Indonesian archipelago in altogether fourteen inscriptions from three different areas. Palaeographically they can be divided into two groups separated by half a century or a little longer, but in the later group at least two varieties can further be distinguished.

B. LATER PALLAVA SCRIPT

A later type of Pallava script, henceforward called Later Pallava, is used in a number of inscriptions of the seventh and the first half of the eighth century. This script is related to, but in many respects quite different from, the Early Pallava script discussed earlier. It has rightly been considered a later form developed out of Early Pallava but, though known from inscriptions in Sumatra, Central Java, the Malay Peninsula and from closely related types of script in parts of mainland South East Asia, it is not that of the Pallava inscriptions themselves, where the earlier script developed along different lines.²²

The basic difference of this script in comparison with Early Pallava is what may be described as the 'equal height' principle: the tendency to write all letters equally high, as though they were held in position between invisible base and top lines. This principle is, however, confined to the basic *akṣaras*, including the initial vowels and a few conjunct vowels such as -*e*, -*ā* (except in a few special cases), -*o* (with the same reservation as for -*ā*) and -*ai*. The other conjunct vowels, the *virāma* and *anusvāra* marks, the conjunct consonants (i.e. the second, third etc. of a cluster), the *r*- preceding a consonant, numerals and punctuation marks

²¹ H. G. Quaritch Wales, 'Archaeological Researches on ancient colonization', *Journ. Mal. Br. R.A.S.*, XVII, 1940, pp. 1-85. Cf. also *Pras. Indon.* II, 1956, note 190 to p. 104.

²² For Pallava script of the seventh century, illustrated by the Māmallapuram inscriptions of Mahēndravarman I (c. 600-630 A.D.), cf. C. Sivaramamurti, 'Indian Epigraphy and South Indian Scripts', *Bull. Madras Govt. Mus.*, N.S. III, No. 4, 1952, pp. 222-224. Five characteristic varieties are given there, all of which show, however, the long projectors of *a*, *ra*, *ka*, etc., as well as the minuscule -*m* (*ibid.*, fig. 122), all characteristic of Early Pallava. The South Indian script has, however, developed in quite a different direction: in that illustrated by fig. 122 clearly in the direction of Tamil script.

are not bound by this rule but may be projectors or occupy only part of the space between the base and top lines. The great significance of this principle is that it draws a clear dividing line between the basic system of signs and the derivative or accessory symbols. It entails a separation of functions which facilitates reading and contributes to an orderly aspect of the written texts. Though never rigidly enforced this 'equal height' principle has remained a regular characteristic of all subsequent Indonesian scripts.

As a consequence the outsize letters of Early Pallava script are subjected to the 'bed of Procrustus': the *ka*, *ra*, *a-* and *ña* all lose their extensions below the base line, while the *la* loses its superior extension. The minuscule *ma*, written below the base line to signify the vowel-less *-m*, now grows to regular size and is written in alignment with the other *akṣaras*, but is provided with an overhead mark to indicate the absence of a vowel. The left spiral of the *ya*, which used to remain well below the top line, is also raised to normal height.

To these a number of other changes may be added:

a. The most striking innovation is the new shape of the *ṇa*. In contrast to the old *ṇa*, which can be described as a *na* to which two small spirals, one turning left and the other turning right, are added at the top, the new shape of the letter consists of four vertical strokes. The latter form continues with only minor modifications for nearly ten centuries. It is possible to derive the quadripartite form directly from the earlier one by assuming that the earlier letter can be written in such a manner that one starts at the left spiral and continues to draw the writing tool (presumably a stylus on palm leaf) down to the base line; there, after a small loop, the tool is raised again and, near the top line, bent to the right to complete the other spiral. If then the equal height tendency is taken into account it is easy to see how this manner of writing the letter could naturally lead to the new shape of the *ṇa*.

This evolution of the *ṇa* may receive some confirmation from the fact that a form reflecting an intermediate stage is found in Pallava inscriptions of the latter half of the fifth century such as the Uruvappalli grant of *yuvamahārāja Viṣṇugopavarman I*.²³ The curved lines from the top of the letter are drawn down to the base line, broadening the *akṣara* without

²³ Issued, however, during the reign of Viṣṇugopavarman's son (probably) Simhavarman. Cf. *Ind. Antiqu.* V, 1876, pp. 50-53, and D. C. Sircar, *Successors of the Śātavāhanas*, 1939, pp. 207 f. also the Vilavatti grant of Simhavarman, see C. Sivaramamurti, 'Indian Epigraphy and South Indian Scripts', *Bulletin of the Madras Government Museum*, N.S., Gen. Section, IV, 1952, fig. 105 on p. 202.

giving it its four-legged shape. Yet it is remarkable that the latter is not attested in South India until considerably later (eighth century), i.e. in Pallava *grantha*. It is found one or two centuries earlier in North Indian Nāgarī (e.g. the Banskhēra Copper-plate inscription of Harṣavardhana)²⁴ and also in a few South Indian Nāgarī inscriptions. One has therefore, within the limitations of the available sources, the choice between two equally unlikely explanations: either the new form of the *na* represents an autonomous South East Asian development which only accidentally coincided with that apparent in Indian Nāgarī, or the quadripartite *na* in South East Asian script of the seventh century is due to the influence of North Indian (or South Indian?) Nāgarī. Whichever is the correct explanation, the new *na* had the great advantage of avoiding the ambiguity of the older form which was difficult to distinguish from *no*.

b. The *la*, too, undergoes a major transformation. It actually occurs in two quite different forms, the first, in which the last rising stroke goes around the top of the other parts of the letter in a broad ellipse, is confined to only a few inscriptions probably datable to the early part or middle of the seventh century; the second, the tripartite *la*, becomes almost a precise mirror reflection of the *ha*, and can be easily derived from the *la*'s in early Pallava by applying the equal height principle: the reduction of the rising vertical to the level of the top line is, as it were, compensated by the prolongation of the curving left hook which grows into a full-fledged vertical stroke.

c. The *kha*, too, undergoes major change and develops into a mirror image of the *ta*.

d. As to the *ta* and *na*, which were quite similar in Early Pallava, some general points have already been discussed in the Introduction.²⁵ Later Pallava shows the second stage in the development set out there: whereas the loop of the *ta* grows till it nearly reaches the top line, the *na*, on the contrary, sees its loop flattened till it disappears or almost so. As a consequence the two *akṣaras* have now become as dissimilar as any can be.

The cumulative effect of these changes is that this Later Pallava script has become quite different from the early type. It seems, in many respects, more closely related to the Early Kawi script of Chapter II than to Early Pallava. Yet, it is clearly distinguished from Early Kawi by its

²⁴ *Epiigr. Indica*, IV, 1896, pp. 208 ff. (fourth from the left on line 2 or *rṇna*, third from the right of line 4).

²⁵ Cf. pp. 9 f.

style, for Later, like Early, Pallava script, is a monumental script and thus stands in clear contrast to the cursive style of Early Kawi.²⁶

After these general features we may now proceed to a more detailed discussion of the different stages distinguishable in this script.

1. *Inscription of Tuk Mas.* This interesting inscription incised in the rock above fresh-water wells near the village of Lēbak (kac. Cokro, kaw. Grabag, kab. Magēlang, kar. Kēdu, prov. Jawa Tengah) on the north-western slope of the Mērbabu is an example of the earliest type of Later Pallava but still with some clear affinities to the older type. The equal-height principle is generally adhered to, especially in *ru* (fifth from the left). The *ka*, however, sometimes has its middle vertical extended below the base-line (in *prakirṇī*), but in *kva* the subscript is clearly affixed at base level. The *na* is of the later, quadripartite, shape but the *na* is still clearly looped and not so different from the *ta*. Of the two *ya*'s in the short inscription the first has a left spiral remaining well below the top line, the second, however, (in *nirrgateyam*) shows the three verticals as nearly equivalent, though the left one (as will remain usual in Early Kawi) is rounder than the two others. By far the most interesting letter is, however, the *la*, already briefly mentioned in the discussion of the general features of Later Pallava. The left part of the letter has become flattened out but the right, ascending, stroke becomes half a circle, running up from the base level and terminating in front of the letter. This shape of the *la* is quite rare in Indonesia. The only other example known to me is in the script of a set of gold plates with Buddhist texts in the *Museum Pusat* at Jakarta.²⁷ In the latter case, however, the use of this particular form of *la* is apparently an archaism as it is in sharp contrast to some other features suggesting a date in the eighth century or possibly even later.²⁸ Outside Indonesia there are, however, numerous examples of this type of *la*, especially in inscriptions of South India, Ceylon and Cambodia dated between the sixth and the eighth century, while it can be found in South India till relatively late.²⁹ In South East Asia one may well regard it as an intermediate between the 'standing' *la* of the East Kalimantan

²⁶ This aspect of the difference between Pallava and Kawi script will be elaborated at the beginning of chapter II.

²⁷ *Pras. Indon.*, II, 1956, pp. 47-167.

²⁸ Cf. *ibid.*, pp. 48-52. As writing does not normally anticipate future developments but often uses archaisms, either consciously or unconsciously owing to the copying of an earlier specimen, it is safe to assume that a text is not earlier than its latest datable features, though it may be considerably later.

²⁹ C. Sivaramamurti, *op. cit.*, p. 138 (fig. 57).

and West Java inscriptions and the later tripartite *la*. It is interesting to note that some of these developments are common to South India, parts of mainland South East Asia and Java. This may suggest that there must have been some contact between these areas in the period under consideration, especially between scribes moving from one area to the other.³⁰ As for the Tuk Mas inscription the above analysis points to a date somewhat before the dated Śrīwijaya inscriptions of the 680ies as had already been concluded by Krom.³¹

2. *The early inscriptions of Śrīwijaya.* These inscriptions, found in or near the city of Palembang, South Sumatra, as well as in Upper Jambi and the island of Bangka, and dated 683, 684, and 686 A.D.³² show the Later Pallava script in its full-fledged form. The description which follows is based on the Talang Tuwo inscription (plate IIb), dated A.D. 684 and originally from a site at a distance of c. 12 km west of the centre of Palembang.

The letters are upright, monoline, slightly elongated and remarkably regular. Interlinear spacing is generous. Loops, curls and, in general, all decorative additions have disappeared, but angles are everywhere rounded off. All basic letters are of equal height without projectors. On the other hand, this limitation does not apply to additional consonants, vowel marks, numerals and punctuation marks.

As in Early Pallava the base lines of broad letters such as *ma*, *pa*, *dha*, *ha*, and *da* are notched, while the descending verticals of *pa*, *ha*, *sa* and *ṣa* show an elegant bend to the left but, as all angles are rounded off, this does not give the impression of acute-angled script.

Most descending strokes are serifed, but the serifs, expressed as small notched wedges, are unobtrusive.

Of the individual letters the following are of interest:

- a. The *ṇa* is quadripartite (as already in Tuk Mas), while the *la* is tripartite with fully equivalent vertical strokes.
- b. The *i*- no longer consists of three dots. The two upper dots have, in fact, coalesced into a notched line of the width of an average letter.
- c. The *ra* is single, serifed and of normal height. On the contrary, the

³⁰ Similar parallel developments, unlikely to be due to mere coincidence, are noticeable in other periods and in other fields of civilization. A discussion would therefore fall outside the scope of this study.

³¹ H. Kern dated the inscription back to c. A.D. 500 (*Verspr. Geschr.* VII, 1917, but original article of 1911, p. 204), but the detailed analysis of the script by Krom, *Hindoe-Javaansche Geschiedenis*, p. 103, leads to its revised dating to c. A.D. 650.

³² Cf. the standard edition with excellent photographs by G. Coedès, 'Les Inscriptions malaises de Crivijaya', *B.E.F.E.O.*, XXX, 1930, pp. 29-80.

Kota Kapur inscription of two years later (A.D. 686) shows only the double *ra*, although its script is in all other respects practically identical. This suggests that, at this time, the single and double *ra*'s were used at the same time, so that the choice between these two varieties depended on the scribe's preference.

d. The *na* is distinguished from the *ra* by the presence of a small, notched bar at the base line. It is not looped.

e. The *cakra* (the *r* following another consonant) ends a little above top level in front of the *akṣara* to which it is attached.

f. A similar half-circle (but, of course, anti-clockwise) is described by -ā following *ja* which, commencing at the middle stroke of the letter, goes over the top of the *ja* and ends up in front of it at the base line.

g. The base stroke of the *ja* is notched.

h. Finally, the subscript -ya is drawn out far to the left, normally up to, or even beyond the level of the beginning of the preceding *akṣara*.

The language in which the early Śrīwijaya inscriptions are written is Old Malay. The use of a script which till then had been confined to the writing of Sanskrit and other Indian languages, to express a language of a different structure required some adaptation. In this case, however, the process was not complicated as the alphabet used for writing Sanskrit naturally possessed a relatively large number of signs, many more than were required for Old Malay, Old Javanese and other Indonesian languages. The Indian letters were used to render the same or similar sounds in Old Javanese. This entailed a need for some re-interpretation as some signs were used in a new function. This happened, for instance, in the case of the mark for the *anusvāra* in Sanskrit, which originally seems to have indicated the nasalization of the vowel above which it is written.³³ This *anusvāra* mark, expressed as a dot or a tiny circle over the *akṣara*, came to be used in Old Malay (and other Indonesian languages) to express the velar nasal (transcribed as *ng*, *n* or *y*) at the end of a word (or, less frequently, syllable). As this occurred very frequently the use of the dot was more convenient than that of the *akṣara* *na* with the *virāma* or *patēn*, which is rarely found in inscriptions.

The principles followed in the use of long vowel marks in writing Old Malay raise problems. We do not know whether long vowels were ever pronounced in Old Malay (or Old Javanese), but we know that all the cases in which long vowels are written can be explained in a different

³³ There are, however, problems on account of the different, sometimes conflicting, statements by Indian grammarians. Cf. J. Wackernagel, *Altindische Grammatik*, I, 1896, pp. 256-259.

manner. Long vowels are written in two cases in Old Malay: (1) in words of Sanskrit origin where the correct Sanskrit spelling³⁴ requires a long vowel, (2) in the penultima of most words, especially if the vowel is an *a* which is not followed by a consonant cluster. The first case requires little comment. In most languages words of foreign origin, unless fully adapted, are spelt in accordance with the spelling in the original language. The second case is more interesting. As Cœdès and others have demonstrated,³⁵ the lengthening of the vowel in such cases is a means of indicating the word accent. That the writing of a long vowel in such cases does not imply its pronunciation as a long vowel follows from a comparison with later Malay written in Arabic script, where also the vowel of the penultima is written long (by the use of *!*, *,*, or *,*), although it is not pronounced as such. Spelling is usually conventional and serves other purposes than the precise rendering of the spoken word. In the spelling of Old Malay, as well as that of classical Malay in Arabic script, the use of long vowels sometimes avoids ambiguity but always facilitates the correct word separation as the long vowel lends most words an individuality of their own.

The writing of the vowel *ĕ*, for which the Indian scripts provided no symbol, created special problems for the Indonesian clerks. Although a separate vowel mark was later used in Old Javanese by a modification of the sign for *-i* (found from the ninth century), in earlier times, and in most cases also later,³⁶ other methods were used to express this vowel. Already in the early Śrīwijaya inscriptions of the seventh century two different rules are followed. In most cases the vowel was expressed by the zero mark, i.e. by the writing of the two consonants between which the *ĕ* was pronounced as a ligature. A clear example is the form *tmu*, which occurs six times in the Talang Tuwo inscription (lines 4, 5, 9, 11, 13, 14) and clearly represents *tĕmu*.³⁷

³⁴ Damais, *B.E.F.E.O.*, LIV, 1968, pp. 519 f., objects against my use of the term 'incorrect' spelling. There is, in my view, considerable evidence to suggest that the Old Malay and Old Javanese scribes tried to write words of Sanskrit origin which were still felt as 'foreign' according to the rules of Sanskrit spelling. In the great majority of cases they spelt indeed long vowels, aspirates etc. in accordance with these rules. In the cases where we see deviations from these rules one may hesitate whether this is due to complete or partial adaptation or to wrong spelling (i.e. wrong with regard to the standards which the scribes appear to have adopted). In most cases the latter seems to be the more satisfactory explanation. On the whole the standard of Sanskrit scholarship was very high in ancient Java and contrasts favourably with that reflected in many inscriptions of ancient India (e.g. those of the Eastern Gāṅgas of Orissa).

³⁵ G. Cœdès, 'Les Inscriptions malaises de Çrīvijaya', *B.E.F.E.O.*, XXX, 1930, pp. 29 ff.

³⁶ Throughout the period under discussion the writing of *ĕ* is irregular and, except in a few inscriptions of the Majapahit period, rather the exception than the rule. In many cases it seems to be limited to words in which other methods of expression may cause ambiguity or look untidy.

³⁷ It seems unlikely that *tm* should have occurred as a consonant cluster at the beginning of a word, a case unparalleled in other Indonesian languages.

Also in other cases there can be little doubt that the correct interpretation should be sought along these lines. Thus, the same Talang Tuwo inscription gives many examples of the word *dñan*, 'with' (lines 3, 4, 5, 9, 10), whereas the Kédukan Bukit inscription, dated one year earlier (A.D. 683), twice presents *dañan* in clearly the same meaning (lines 5a and 6). The only satisfactory manner in which the co-existence of these two different forms of the same word can be explained is by assuming that both represent the old and modern Malay and Indonesian word *dĕñan* (spelt *dengan*). This leads to the conclusion that at least in this particular case the two spellings represent two different methods of expressing the ē.³⁸

This analysis of the script and spelling emphasizes the importance of the early Śrīwijaya inscriptions: they not only mark the beginning of the first great Indonesian empire but also that of a national language and of a script fully adapted to the new requirements.

3. *The Sanskrit inscription of Canggal* (commune of Kadiluwih, kac. Salam, kaw. Salam, kab. Magélang, Kédu, Central Java), dated A.D. 732, and therefore the oldest dated inscription of Java, is written in a type of script that is closely related with that of the Śrīwijaya inscriptions, from which it presents, however, a number of minor differences. Interlinear spacing is not generous, especially not in the lower half of the inscription; serifs are completely absent; finally, the *ra* is invariably double-stroked. This last-mentioned detail is clearly an archaism for which there is no later example in Indonesian script. In fact, the Canggal inscription seems, palaeographically, to reflect a slightly earlier phase than the Śrīwijaya inscriptions of half a century before. The latter cannot therefore be regarded as the prototype of the Canggal script. On the other hand, the co-existence of older and newer types of script in areas separated by a distance of about 600 miles is by no means surprising.

The Canggal inscription is the last known text in 'Pallava' script in Indonesia. From about the middle of the eighth century we find, in Central and Eastern Java, the use of a different type of script, which will be discussed in chapter IV.

³⁸ A third method, occasionally found in inscriptions of Central Java mainly in the ninth century is that of doubling the consonant after which ē is heard (*tallu* for *tēlu*).

CHAPTER TWO

EARLY KAWI SCRIPT (c. 750-925 A.D.)

The script appearing in inscriptions from about the middle of the eighth century has been named Kawi or Old Javanese. Its relation to the earlier 'Pallava' type has first been discussed by H. Kern in an article on the *yūpa* inscriptions of Mūlavarmaṇa, published in 1882. Kern argued that this script, to which he applied the traditional name of Kawi, did not directly develop from the Pallava type script (which Kern described as the script of Vēṅgī and of the Cēras). Krom, on the other hand, explained that 'at that moment (viz. in the year A.D. 760) the gradual development of Pallava script had reached the stage at which it should rightly be named "Kawi"'. Although there are too few inscriptions in the eighth century to warrant any definitive decision it now appears that Kern's view is more plausible than that of Krom. First of all, the 28 years' gap between the scripts of Canggal and Dinoyo should probably be reduced to 18, for the Plumpungan inscription of 750 shows essentially the same script as that of Dinoyo. The gradual development assumed by Krom would normally require a greater length of time for the differences to take shape. A perhaps stronger argument is the fact that changes similar to that witnessed in Java can also be found in mainland South East Asia. Neither of these arguments is decisive but they seem to tilt the balance in favour of Kern's theory.

The principal difference from the Pallava script is the difference in style. Pallava script as found in various parts of the Indonesian archipelago is clearly a lithic script used for monumental purposes. Its most striking feature is the presence of long 'sculptered' verticals with distinct head-marks, elaborate and elegant curves, rounded-off angles and often notched horizontals. The early Kawi script, on the other hand, is apparently a script used for writing on palm leaf (*lontar*) and thus shows a cursive hand, but 'translated' into shapes appropriate to the stone. The technique of writing on *lontar* involves the use of a sharp-pointed stylus, with which it is not easy to draw long vertical strokes, whereas a round and slightly sloping style comes almost natural. As it was not meant to be used for monumental purposes it was, in its early phase, almost purely functional with aesthetic considerations entirely on the background.

Early scholars like Holle, Cohen Stuart, Brandes and H. Kern called

this script Kawi,—a name given to this script by some Javanese, although its current meaning is that of indicating the archaic language of classical (modern)-Javanese poetry. When Old Javanese studies were still in an elementary stage, this poetical language was identified with Old Javanese so that the name Kawi applied to both. It was then natural that the name should equally be applied to the script in which Old Javanese was written.

It had, however, by the middle of the nineteenth century become clear that Kawi, though full of Old Javanese words, is quite different from the Old Javanese language, yet the term was maintained for some time to indicate the script. It was Krom, in fact, who introduced the term Old Javanese script into general use. The term is, however, also open to serious objections, viz. the fact that it is not confined to Java, nor is it certain that it originated there. One of the oldest examples, the Ligor inscription of 775, comes from southern Thailand (Nakhon Sri Thammarat). The present author therefore prefers the name Kawi for the script, which has the additional advantage of brevity.

This Early Kawi, which flourished for nearly two centuries (c. 750-925), can subsequently be subdivided into an archaic phase (A), in which the principal features have not yet become quite stabilized (c. 750-850), and (B) full-fledged Early Kawi, regularized and stabilized.

A. ARCHAIC PHASE

1. The oldest known inscription in Early Kawi script is the inscribed stele of *Plumpungan* (Estate of Gētas) near Salatiga,¹ kac., kaw. and kab. Salatiga, kar. Sēmarang, Central Java, probably dated A.D. 750. Despite the large size of the letters and the addition of many ornamental elements the script is essentially quite similar to that of the ten years younger inscription of Dinoyo, which lends itself better to a detailed description.

2. *The inscription of Dinoyo*² (kac. Dau, kaw., kab. and kar. Malang, East Java) is dated A.D. 760. Unlike the early Śrīwijaya inscriptions but like the nearly thirty years older inscription of Canggal it is entirely written in Sanskrit verse. Owing to its length and to the occurrence in the text of most of the different *akṣaras* it may give a good impression of the earliest stage of Early Kawi.

What distinguishes this script from the Later Pallava style is not only

¹ *Pras. Indon.*, I, 1950, pp. 1-11; cf. L.-C. Damais, 'Études d'Épigraphie Indonésienne. III. Liste des principales inscriptions datées de l'Indonésie'. *B.E.F.E.O.*, XLVI, fasc. 1, 1952, pp. 20 f.

² F. D. K. Bosch, 'De inscriptie van Dināja', *Tijdschr. Bat. Gen.*, LVII, 1916, pp. 410-444 (with an illustration); J. G. de Casparis, 'Nogmaals de inscriptie van Dinojo', *Tijdschr. Bat. Gen.*, LXXXI, 1941, pp. 499-513; cf. also L.-C. Damais, *art. cit.*, pp. 22 f.

the use of some new shapes of *akṣaras* such as *ra* and the different form of the *virāma*, about which more will be written in the next paragraph, but above all the style of the script. Instead of the upright, elongated, and decorative shapes of the Canggal inscription, we here find an essentially cursive hand, such as that which is the result of writing with a pen or stylus on palm leaf or other material. The letters are all moderately sloping with all angles rounded off. There is also a pronounced tendency towards squareness as the *akṣaras* of medium width (*pa*, *sa*, *ma*, *ka*, etc.) are given a width equal to their height. Serifs, almost absent from the letters of the Canggal inscription, are clearly indicated and linear in shape. On the whole the script gives the impression of having been written with a certain speed.³

The most interesting of the individual *akṣaras* is *ra*. In most Pallava scripts (including also the Canggal inscription) the letter is 'double' i.e. consisting of two vertical strokes linked at the bottom, one descending and one rising.⁴ In some Śrīwijaya inscriptions the *ra* is single and of normal height.⁵ In the Dinoyo inscription a further development can be noticed. The linear serif with which most *akṣaras* are provided becomes larger in the case of *ra* and begins to grow into an integral part of the letter. The reason for this development is understandable: for after losing both its downward extension and its second vertical the letter becomes similar to the vertical stroke used to express the -*ā* following most consonants. It is true that the latter is always attached to the right-hand top of the *akṣara* to which it belongs whereas the *ra* is free-standing, but this difference is not always easy to notice.⁶ In any case, expressed as a single vertical stroke, the letter lacks individuality. It is therefore natural that there should have developed a tendency at emphasizing the distinctive mark, viz. the serif. This is indeed what appears from the Dinoyo inscription. This development continues and, and takes, from the time of the Later Kawi of East Java, the appearance of a distinct 'head' on the vertical.

³ This speed of writing does not, of course, apply to the stone-cutter, who may have taken his time, nor necessarily to the scribe who drafted the text of the inscription, but to the general style of the script. The scribe naturally drafted his text in the script current in his time, while the stone-cutter reproduced this draft as accurately as possible on the stone.

⁴ In Early Pallava, as we have seen (chapter I; A, Section e), the rising vertical is drawn up to the base line only.

⁵ This is, for instance, the form found in the Talang Tuwo inscription, see plate II, line 1 of the illustration (*rūpa*).

⁶ This similarity of *ra* and -*ā* is by no means confined to this script but is found in other Indic scripts. Thus, in modern Tamil script *ra* and -*ā* are normally indistinguishable (both written as */*), but wherever there can be a chance of misunderstanding a little horizontal mark is added to link the two verticals also at the bottom (as */*).

The *virāma*, expressed as a little curve over the *akṣara* to which it belongs, is used very frequently in this Sanskrit inscription, much more so than is usual. The explanation involves a point which is not strictly one of script but of spelling but is mentioned here because it is closely related to writing, the fact that all Sanskrit words in the Dinoyo inscription are spelt as though they stood *in pausa*. That this is not due to infamiliarity with the *sandhi* rules appears from the fact that the reader is required to put the *sandhi* right before he can read the text in its correct metrical form. It is therefore possible that the inscription was not only written as a *prasasti* and a foundation charter for an Agastya image and temple, but also served a didactic purpose.⁷ In addition, one may suspect that *sandhi* would have been felt as somewhat artificial by speakers of an Indonesian language, in which the word is a definite phonemic unit.⁸ In writing a text in an Indonesian language the use of a *virāma* to indicate a final (vowel-less) consonant would appear more natural than the combination of such a consonant with the initial of the next word into a ligature, often entailing phonetic change. If, indeed, this spelling must be explained as an imitation of the usual manner of spelling Old-Javanese it would follow that this language was, in fact, written down at an early stage. It is true that no examples have survived but this does not exclude the probability that the script was used for writing Old Javanese on palm-leaf—which could not have survived so many centuries. As has been argued earlier, the cursive style of writing of the Dinoyo inscription creates the impression of a script primarily used for writing on palm-leaf. On the other hand, it may be added that Old Javanese is found used in inscriptions of less than half a century after the date of the Dinoyo inscription.⁹

3. We have a considerable number of inscriptions dated between 760 and 856, mainly stone inscriptions but also one authentic copper

⁷ Thus, in India a lengthy *kāvya* such as the *Bhaṭṭikāvya* was composed mainly in order to illustrate grammatical rules and forms. Is it a co-incidence that it was one of the *mahākāvyas* in Sanskrit that was well known to the cultured Javanese of ancient times and served as the prototype of the Old Javanese *Rāmāyaṇa*? Cf. C. Hooykaas, 'The Old-Javanese Rāmāyaṇa. An exemplary kakawin as to form and content.', *Verh. Kon. Ned. Ak. Wet.*, N.R., LXV, No. 1, 1958, pp. 1-70.

⁸ We have, of course, no proof that this statement holds true also for a language for which we have no other material than written texts. On the other hand, the fact that Sanskrit *sandhi* rules are not rarely applied in Old Javanese texts may at first suggest the opposite conclusion. It should, however, be emphasized that the surprising fact is not the occasional use of *sandhi*, which can be compared with the use of numerous Sanskrit words by the scribes, but the fact that it is normally not done. Even hiatus between the final vowel of one word and the initial one of the next is regular in the oldest phase of Javanese poetry.

⁹ The oldest example is 804 in the initial part of the Sukabumi inscription, incorporated, however, in inscriptions of 921 and 926. The figure 804 is given as corrected by L.-C. Damais, 'Études d'épigraphie Indonésienne', *B.E.F.E.O.* XLVI, 1, pp. 24 f.

plate and one inscription engraved on a silver parasol. They are almost all from Java except for the so-called Ligor inscription of A.D. 775 which, though belonging to southern Thailand, was issued by a ruler of Śrīwijaya in southern Sumatra and should therefore be mentioned here. There are, in addition, a number of Sanskrit inscriptions written in a type of Early Nāgarī, which will be studied in the appendix to this chapter. There remain just over a dozen inscriptions written in types of script closely related to that of Dinoyo.

The Sanskrit inscription of Ligor, dated 775,¹⁰ presents a number of curious features, most of which appear to have been of no consequence. The serifs are very distinct and linear but often detached from the letter to which they belong. The -ā usually extends to below the base line. In the case of *ja* the ā is, as usual in older script, attached to the middle bar of the *ja*, then runs upwards turning left and goes in a full circle around the letter ending at the right top level in a little outward bending hook. Also the *cakra* goes in a wide bend but, as usual, turning clock-wise round the base of the *akṣara*. The *akṣaras* are generally roundish and slightly tilted—less than those of the Dinoyo inscription.

The script of the bilingual Sailendra inscription of Karangtēngah, dated 824, though badly withered, can still be recognized as quite similar to that of Dinoyo but neater and more regular. All letters are of precisely the same height with generous interlinear space. They are well aligned with clear, but unobtrusive, serifs. The *virāma* is, as in Dinoyo and Ligor, expressed by a concave horizontal stroke over the letters of about the width of the average letter. The *akṣaras* are moderately sloping.

The script of the many short inscriptions on the reliefs of the concealed foot of Barabudur is quite similar to that of Karangtēngah, from which it differs only in its less formal style. The significance of the inscriptions for dating the monument has long been understood. The reason why these inscriptions were incised is, however, uncertain. The usual explanation of these inscriptions as indications for the sculptors is unsatisfactory as it is difficult to understand why they should have been cut into the stone instead of being written in chalk or paint. They probably served a didactic purpose in keeping with the strong moralistic tendency of the text represented by the reliefs (*Mahākarmavibhāga*).¹¹

¹⁰ G. Coedès, 'Le Royaume de Çrivijaya', *B.E.F.E.O.*, XVIII, 1918, pp. 1-36; B. Ch. Chhabra, *Expansion of Indo-Aryan Culture*, pp. 26-34, pl. 4 and pl. 5, fig. 2.

¹¹ Thus, an inscription such as *mithyādrṣṭi* would hardly give a clue to a sculptor but would be of help to a pilgrim, indicating that the scene represented in the relief involved the sin of adherence to wrong views. The script has been discussed by Kern, *Verspr. Geschr.*, VII, 1917, pp. 146-156 (original article of 1896) and by Krom, *Archaeologische beschrijving van Barabudur*, 1920, pp. 50-52.

The inscriptions of Candi Plaosan Lor,¹² datable to about the middle of the ninth century, represent a quite similar type of script, but more regular. Apparently the inscriptions were cut by different hands as they represent different individual styles. Although the letters are generally square and sloping there is in some inscriptions a distinct tendency towards elongation, especially in e.g. inscription I, 44 (D.P. 18998) or I, 41 (D.P. 18994), most noticeable in letters like *pa* and *wa*. Two different forms of the *virāma* occur, both the earlier form expressed as a small curve over the letter and the later one running in a half circle from left above the *akṣara* to right below, see I, 33 (D.P. 18989).

In general the script of these inscriptions seems to mark a transitional phase leading to the standard form of Early Kawi in the latter part of this period (c. 850-925).

B. STANDARD FORM OF EARLY KAWI

1. This standard form of Early Kawi is represented by a relatively very large number of inscriptions (more than a third of all those found in Java), both on stones and on copper plates. Most of these belong to the reigns of Kayuwangi (856-882) and Balitung (899-910). They are all written in the same script with only minor variations due to different hands. The description which follows is based on the (still unpublished) copper-plate inscription of Polengan (kal. Krupyak, kac. Kēnaren, kaw. Kalasan, Jogjakarta), No. II, A.D. 875, and the inscription of Raṇḍusari (kac. Prambanan, kaw. Gondangwinangun, Surakarta), No. I, A.D. 907.¹³

The script is functional without embellishments but has a certain grace owing to its perfect regularity and the balance achieved in correct spacing. The letters are slightly sloping, a little more in Polengan than in Raṇḍusari. The use of serifs is systematized: some letters are always without serif (thus *i*-, *na*, *da*, *ja*), some others are double-serifed (thus *pa*, *sa*, *da*, *a*- and *ya*; in the last case the second and third verticals are serifed), most of the remaining letters have a single serif which is liable to disappearance if an *ulu* is put on top. Two *akṣaras*, *ka* and *ta*, invariably lose their serifs if they have a *virāma*. These details are of interest as aids to decipherment in the case where letters are partly worn or damaged.

As final consonants are almost always written with *virāma*—un-

Krom, though rightly arguing that the script must be much later than that of the Dinoyo inscription of 760, subsequently dates it, somewhat inconsistently, back to the latter half of the eighth century.

¹² J. G. de Casparis, 'Short Inscriptions from Tjanḍi Plaosan-Lor', *Berita Dinas Purbakala*, no. 4, 1958, plates II to IX.

¹³ See plate IV, nos. a and b. For the Raṇḍusari inscription see W. F. Stutterheim, *Inscr. Ned.-Indië*, I, 1940, pl. I.

connected with the following word—ligatures are limited to the few possible clusters at the beginning or in the middle of a word, as well as the more unusual combinations due to the non-writing of the *ɛ*. These ligatures require little comment. The most interesting detail is the form of subscript *pa*, *sa* and *ha*, which rise to the top level of the *akṣaras* and end in a serif. This shape can be regarded as the initial stage of the development leading to the modern shape of these letters, written, in a modified form, to the right of the consonants with which they are combined. Superscript *ra* is written as expected, but it is interesting to notice that it can be provided with a makron as in *rṣā* (Raṇḍusari, I, plate 1b, line 1). As in all earlier, and in many later inscriptions, the *-u* is invariably attached to the middle vertical of the *ka*.

Although the script is monoline there are some slight differences in thickness of the stroke, visible only by enlargement, which show how precisely the letters were written. Thus, the *pa* was written in a single stroke: first down to the base, then up in a curve. The *sa*, however, was written in two strokes, both from top to bottom, but the right stroke turning up to the left at the bottom. Such details are not entirely without interest as the shape of an *akṣara* is not static but the expression of movements with a writing tool. The course of these movements is therefore an aspect of the shape of the *akṣara*, and one that may provide help in explaining the changes which the *akṣara* may undergo in course of time.

2. Towards the end of the period under discussion, in particular in inscriptions issued by the three kings following Balitung *between 910 and 929*, there is a tendency towards more upright and more angular shapes, foreshadowing the later, East Javanese, style of Kawi script. In the undated copper-plate inscription of king Dakṣa (910-919)¹⁴ the slant has become so slight as to be almost imperceptible. The *wa*, nearly circular in the Kayuwangi-Balitung style, now becomes a square with rounded-off corners; the serif has gone but the horizontal top stroke extends slightly to the right of the vertical stroke. Similar extensions are apparent with the *ka* and *ta*. Only a few letters, such as *ha*, *pa*, *sa*, *a-* and *ya*, retain serifs in their descending strokes (both strokes of the *sa*, the left hand stroke of the *pa* etc.). This copper plate is beautifully engraved with real calligraphy in which regularity is carried to perfection.

Real differences from the script of the Kayuwangi-Balitung period are, however, few and confined to small details. On the whole, the Early Kawi script shows a remarkable stability from the middle of the ninth century.

¹⁴ Mus. voor Volk., Leiden, No. 2120; compare K.O. XVII and the attached facsimile.

APPENDIX: EARLY NĀGARĪ

Besides the regular script used in the great majority of the inscriptions, as discussed in the preceding chapter, we have a small number of Sanskrit inscriptions, all from southern Central Java, which are written in a script of apparently North Indian origin. It can be regarded as the direct predecessor of the well known Nāgari or Devanāgari script,¹⁵ which develops in northern India from the eleventh and twelfth centuries. It has therefore been described as Prenāgari,¹⁶ but as this term is avoided by A. H. Dani as too vague a term like Early Nāgari may be preferable. L.-C. Damais, who also felt objections against the use of Prenāgari substituted the Indian designation *siddhamātrikā*,¹⁷ which may, however, create misunderstanding as the term is considered a synonym of *kuṭila*, used by Fleet to describe the well known North Indian script in which the long vertical strokes show an inward bend.¹⁸ This is definitely not the case with the Early Nāgari inscriptions from Central Java which have perfectly straight verticals. Bühler's term 'acute-angled' is more applicable to the script of these inscriptions, although this aspect of the script is not very prominent and often entirely absent.¹⁹ In addition, the term 'acute-angled' can better be reserved for Later Kawi script of the eleventh and twelfth century, where it is a much more striking and regular feature.

The most immediately striking feature of this Early Nāgari is the regular use of very distinct triangular headmarks. They have a wedge-like appearance and frequently take the aspect of real nail heads. Superscript *ra* is indicated by the same 'nail head', which leads to the use of a double nail head in cases like *rmma* (line 1 of Plate III a).

Another basic feature is the long downward extension of the right verticals, which creates the impression of a strong predominance of the verticals, which is only partly compensated by the long horizontal strokes of superscript *-e* and, especially, of subscript *ya*. In both cases the horizontals extend over the width of about three normal *akṣaras*, in the latter the horizontal strokes are doubled and show angular connexions with the verticals.

The details of this script have been analysed by Bosch with great

¹⁵ Also, of course, of Bengali script. Indian Nāgari is believed to have developed from the Rājasthāni style; cf. A. H. Dani, *Indian Palaeography*, p. 111.

¹⁶ 'Prae-Nāgari' in most Dutch publications. Cf. F. D. K. Bosch, 'De inscriptie van Kēloerak', *Tijdschr. Bat. Gen.*, LXVIII, 1928, p. 6.

¹⁷ L.-C. Damais, 'Les écritures d'origine indienne en Indonésie et dans le Sud-Est Asiatique continental', *Bull. Soc. Ét. Indoch.*, XXX, No. 4, 1955, p. 369 (abbreviated *siddham*).

¹⁸ Cf. especially A. H. Dani, *Indian Palaeography*, 1963, pp. 112 f. and *passim*.

¹⁹ G. Bühler, 'Indische Palaeographie', *Handbuch für Orientalwissenschaft*, 1896, pp. 45 ff.

detail and in a clear and convincing manner. The survey which follows is based on his analysis.

Among the most interesting letters are the *ha* and the *ja*. The former is provided with a downward pointing 'appendix', which is also found in some Indian inscriptions from the middle of the eighth century. Another downward stroke is often attached to the *ja*, hanging down from the top line, giving the impression as though *jā* was intended; the latter is, however, written without 'appendix', while the -*ā* is expressed by a vertical connected to the middle (downwards-slanting) horizontal (see, e.g. line 12 of the Kalasan inscription, the 7th *akṣara* from the right).

There are, in addition, some differences in detail between the four known inscriptions in this script. Bosch called especially attention to the different shapes of the *na* even in the same inscription. He also went into a detailed comparison with Indian scripts of about the same period and concluded that, although most individual details can be traced back to Indian inscriptions, there does not appear to be any prototype where all these peculiarities can be found together. He further concluded that this assessment suggests that this script of North Indian origin probably evolved during several centuries in Buddhist monasteries in Indonesia before being used in inscriptions. This conclusion indeed appears likely at the present state of our knowledge, but only a comprehensive comparison involving also the inscriptions in similar script from South India and Ceylon as well as from mainland South East Asia could yield a more convincing conclusion. As the script is, at least in the period under discussion, limited to Mahāyāna Buddhism its expansion is no doubt connected with the activities of Buddhist monks from centres such as Nālandā.

Apart from these four large stone inscriptions of Central Java there are a small number of more or less contemporary inscriptions engraved on the bases of Buddhist bronzes, all containing the so-called Buddhist creed (*ye dharmā hetuprabhavā* etc.). As they are not dated and are used for a stereotyped formula they are of little value for palaeographic purposes. Though the writing is, on the whole, similar to that of the stone inscriptions there are some differences the significance of which is difficult to assess. It is quite possible that they are attributable to the inexperience of the scribe, or even his lack of interest in writing out this stereotyped text.²⁰

²⁰ It is even quite possible that in many cases no professional scribes were called. If we assume that on such occasions the text was engraved by the bronze smith who cast the statue one could explain the anomalies and apparent mistakes often found in these image inscriptions.

The stone inscription of Sanur, South Bali, consists of two texts: one in Early Nāgarī script (partly in Sanskrit, partly in Old Balinese language), the other in Early Kawi script and Old Balinese language. It is probably dated A.D. 914 in the reign of Ugrasena.²¹ The Nāgarī is related to that of the inscriptions from Central Java, from which it differs, however, by the presence of very long vertical strokes clearly of the *kutila* type. Many *akṣaras* have small but distinct nail heads. A curious distinction is made between the *ma* with closed top line and the *sa* which is open. The type of script is quite in accordance with that of contemporary Indian inscriptions such as the Bagumra plates of the Rāṣṭrakūṭa king Indrarāja III, dated 915, from which it differs, however, in some minor details.²² As it may seem unlikely that these *kutila* verticals should have developed at the same time in India and in Bali but independently from one another, it has to be assumed that in this case there has been direct Indian influence, for instance by an Indian scribe employed by Ugrasena. It should be added that in this case, unlike in the Javanese inscriptions, there is no connexion between Nāgarī and Mahāyāna Buddhism.

²¹ W. F. Stutterheim, 'A Newly Discovered Pre-Nāgarī Inscription on Bali', *Acta Orientalia*, XII, 1934, pp. 126-132, 2 plates; cf. also L.-C. Damais, 'Études Balinaises', II, *B.E.F.E.O.*, XLIV, facs. 1, 1951, pp. 129-139. For a photograph of the pillar see R. Goris and P. L. Dronkers, *Bali, Atlas Kebudajaan*, Kem. P. P. & K., Djakarta, no date, No. 303.

²² *Epigr. Indica*, IX, p. 24; cf. also C. Sivaramamurti, 'Indian Epigraphy and South Indian Scripts', *Bulletin of the Madras Government Museum*, G.S. III, No. 4, 1952.

CHAPTER THREE

LATER KAWI SCRIPT (c. 925-1250)

Throughout this long period the political and cultural centre of at least the eastern half of the Indonesian archipelago was in East Java. It is from there, as well as from the adjoining island of Bali, that the vast majority of the written sources emanate. Although Śriwijaya continued to dominate the western part of the archipelago there are hardly any inscriptions of this period that can be attributed to this great empire.

Throughout this long period of about three and a quarter centuries the script undergoes little basic change but shows important stylistic developments which are, in many respects, interesting. Also the beginning and end of the period are by no means clearly delimitated. Thus, the post-925 script of Java, which all comes from East Java, is quite similar to that of the pre-925 inscriptions from East Java, such as Dakṣa's Singosari inscription of 915 and Tulodong's Sukabumi inscription of 921. As this script is stylistically rather different from the near-contemporary inscriptions of Central Java it seems likely that the difference is not only in time but also in place. This marks this Kawi, later style, as typically East Javanese. Four different types of script can be distinguished in Java: 1. East Javanese Kawi from c. 910 to 950; 2. East Javanese Kawi in the reign of Airlangga (c. 1019-1042); 3. East Javanese Kawi of the Kadiri period (c. 1100-1220); 4. Quadrat script of the Kadiri period (1050-1220). Finally, the script in the other Indonesian islands will be briefly examined in a fifth section.

1. *The script of the East Javanese inscriptions of Dakṣa (910-919), Tulodong (919-921) and Wawa (921-929) as well as the numerous stone inscriptions of Siṇḍok (c. 929-947) is upright with, for letters such as pa, ma, wa, ga, śa, ūa and many others, a pronounced tendency towards squareness, but without angularity. The script is generally monoline and, at least in the well incised stone inscriptions (e.g. the stones of Caṇḍi Lor and Siman), of striking regularity. The script is generally functional but the decorative aspect is by no means entirely absent. It shows itself especially in the elegant curves of the virāma (patēn) and the -r- following a consonant (cakra). In contrast to the earlier style of Kawi script almost all the inscriptions are on stone and, as far as the royal edicts are concerned*

(the great majority of the inscriptions), on very large¹ and well cut stones with smooth surface and sometimes² sober decorations at the top.

2. *The inscriptions of Airlangga* (c. 1019-1042) show a much more ornate type of writing, which clearly foreshadows the script of the Kadiri period. The 'Calcutta Inscription'³ of 1041 is a striking example of a nearly perfect compromise between functional requirements and aesthetic embellishments. The average *akṣaras*, i.e. those with two vertical strokes, as well as a few others (such as *ja*, *na*, *da*), have their height precisely equal to their width (1 cm in some lines; 0,8 in others). On the other hand, the strokes are rarely completely straight. Some verticals like the *ra* and the left-hand strokes of e.g. *wa* and *ba* move down in elegant double curves recalling the *tribhanga* posture in iconography. Whenever a descending vertical stroke is connected to a horizontal base line the vertical bends slightly left before linking with the horizontal. The result is an acute-angled connexion, well known from Indian palaeography. Some examples are *pa*, *ha*, *da*, *wa*, *ba* and *ca*. This feature neutralizes any real impression of 'squareness', as would otherwise have arisen owing to the equality of height and width. Any impression of squareness is further reduced by the use of contrasted strokes, which distinguishes this (as well as most of the later Javanese types of writing) sharply from Early Kawi, which is generally monoline. Many descending verticals (e.g. those of *ra*, *pa*, *sa* and *da*) appear like brushwork, thickening at the base, and for the *ra* showing

¹ Many stones are about 1,50 m high, 1,00 m broad and 0,30 m thick and have all the six sides (i.e. including the two sloping faces at the top) inscribed. Some have over a hundred lines of writing (the Kujonmanis stone, e.g. has 166). See plate Va, based on the photograph a larger part of which is reproduced in Brandes-Krom, *Oudj. Oorkonden*, plate 5.

² The stone of Candi Lor, for instance, shows on one side a crowned *Nāga* with a *śanīha* and other symbols, on the other an elaborate Kāla head.

³ This is one of the most important Old Javanese inscriptions. It stands at present in the Indian Museum at Calcutta where it was sent by Raffles in 1813. Although the precise site of origin of the stone is unknown there is no doubt that it belongs to the area south-west of present Surabaya, either to the (southern?) slope of the Gunung Pénanggungan or, more probably, to the Gunung Pucangan, a hill about 500 ft. high situated about ten km north-east of Ploso (see the Map HIND 1090, sheet 53/XLI-A, second edition, 04 by 67); cf. W. F. Stutterheim, 'Oudh. Aantek. No. XLVIII, *Bijdr. Kon. Inst.*, XCV, 1937, p. 409-412. The text of this bilingual inscription (Sanskrit and Old Javanese) was published by H. Kern in two articles of 1885 and 1913 reprinted in *Verspreide Geschriften*, VII, 1917, pp. 83-101, and 102-114. Brandes' transcription in *Oud-Javaansche Oorkonden*, No. LXII, is of little value. Among the many interesting discussions of the inscription I should especially mention C. C. Berg, 'De Arjunawiwāha, Er-langga's levensloop en bruiloftslied?', *Bijdr. Kon. Inst.*, XCIV, 1938, pp. 19-94. For the precise dating cf. L.-C. Damais, 'Études d'Épigraphie Indonésienne.—III. Liste des principales inscriptions datées de l'Indonésie', *B.E.F.E.O.*, XLVI, fasc. 1, 1952, No. 141 (pp. 64 f.). This promising scholar has been prevented by untimely death from carrying out this intention of re-editing the entire inscription. Only some partial photographs are available; for a sample see plate V b. The only hitherto published photograph is that of a part of the Cane inscription of A.D. 1021, viz. plate 9 of the *Oud-Javaansche Oorkonden*, the script of which is almost identical with that of the Calcutta inscription. The facsimiles accompanying Kern's edition are worthless.

a slight bend to the left indicating, as it were, the place where the brush was lifted.

After these general features a few details may be noted in particular:

a. The left descending stroke of the *ma* shows a sharp notch about half-way down, which gives the letter a marked individuality, and helps distinguish it from the *śa*.

b. The left, rising, stroke of the *śa* starts at the bottom with a curious spiral, which again gives the letter its distinct look, and helps distinguish it from the *ga*.

c. The *na* has a very characteristic shape. It starts at the top with a painted wedge; the vertical has a sharp notch to the left and is, just at the height of the notch, connected to the other stroke bending down to the right.

d. Finally, the *ba* assumes a striking shape with the addition in the horizontal bottom stroke of a kind of left upwards pointing hook.⁴ In contrast to the peculiarities mentioned under *a* to *c* this shape of the *ba* marks the beginning of a development in which the excrescence of the bottom part grows into an essential part of the *akṣara*.

It should be emphasized that the above mentioned points concerning the shapes of the *ma*, *śa*, *na* and *ba* are not merely embellishments but touch the basic function of script, viz. that of serving the process of communication. This is because they emphasize the 'individuality' of each letter and thus minimize any possible ambiguity as well as render the words more directly recognizable. For the twentieth-century palaeographist these details provide a most useful aid in the decipherment of partly damaged writing. Thus, to take an example of an *akṣara* that has just been discussed, the bottom half of the *na* in Airlangga's inscriptions is so characteristic that it suffices for the correct identification of the letter as a whole.

3. *The inscriptions of the Kadiri Period (c. 1100-1220)*⁵ are clearly a

⁴ See, for instance, the *ba* in *isānabajra*, third line from the bottom, Phot. O.D. No. 1514.

⁵ The second half of the eleventh century is no longer an 'empty' period as far as inscriptions are concerned, although it still remains a dark one. New discoveries all relate to the period following the reign of Airlangga, notably the copper-plate inscription of Baujararum near Tuban of Sri Mahārāja Mapaṇji Garasakan, dated 1052, but existing in a copy of the Majapahit period; cf. R. Buchari, 'Sri Mahārāja Mapaṇji Garasakan', *Madjallah Ilmu-ilmu Sastra Indonesia*, 1967, pp. 1-25. Two other inscriptions belong to this same period, viz. the inscription of Turun Hyang B (cf. Buchari, *loc. cit.*) and the stone of Sumēngka dated A.D. 1059; cf. L.-C. Damais, *B.E.F.E.O.*, XLVI, Fasc. 1, 1952, pp. 64 f. (No. 144). The first of these three inscriptions is worthless for palaeographic purposes as it exists only in a fourteenth-century copy; the script of the two others seems indistinguishable from that of the inscriptions of Airlangga. There still remains a lacuna of over half

continuation of the style of the inscriptions of Airlangga. In particular, they show the same type of 'painted' serifs, while many individual *akṣaras* are identical, such as the *ba*. On the other hand, there are also important differences which make the script of the Kadiri period immediately recognizable. These are the following:

a. The most striking feature, appearing almost at a glance of plate V c, is the vertical elongation of the letters, most noticeable in those with several vertical strokes (such as *pa*, *sa*, *sa*, *ga*, *śa*, *i-* and *wa*). The actual difference, if expressed in measurements, is slight, approximately 5:4 or even a slightly lesser ratio, but it is consistent and therefore unmistakable. It entails a clear predominance of the vertical over the horizontal lines.

b. Of the individual signs the shape of the *patèn* (*virāma*) is particularly striking. In all the earlier inscriptions in Kawi script, including those of Airlangga, the *patèn* starts on top of, or well above, the *akṣara* and runs subsequently in a wide curve round its right-hand side. In the Kadiri inscriptions, on the other hand, the *patèn* starts precisely at the top level of the *akṣaras* but then runs below the base line in an elegant curve to the left. The complete height of the *patèn* becomes precisely twice that of the normal letters. This innovation proved successful; at least for the next few centuries the *patèn* retained this basic shape.

c. Among the individual *akṣaras* the *na* is interesting throughout the history of script in Indonesia. In the Kadiri inscriptions both the looped and the non-looped forms occur but the former is the normal shape, as illustrated in plate V c.

d. The *-i* (*ulu*), which in all the earlier and most of the later inscriptions is expressed as a closed little circle over the *akṣara*, is open-bottomed in most Kadiri inscriptions. It is difficult to see any reason for this peculiarity which, in any case, represents only a temporary phase. It is probably no more than a stylistic preference of the scribes of the Kadiri period and may be of some help in dating fragmentary or badly withered inscriptions.

e. Among the *pasangans* the *-wa* deserves special attention for its elongated shape and slanting position.

In the history of Javanese literature the Kadiri period is associated with an unprecedented and, at least before the eighteenth century, unequalled development of poetry reflecting the existence of a refined and sophisticated court culture. The nature of the script of this period seems

a century from 1059 to the earliest Kadiri inscription of 1117. This gap is only to some extent bridged by at least fifteen inscriptions from Bali, most of which are edicts of Anak Wungsu.

quite in accordance with the elegance of the culture of Kadiri. In general it strikes a happy balance between the functional requirements and the aesthetic sense owing to its nearly perfect regularity and its refined, though never predominating, decoration.

4. In addition to the normal script of the Kadiri period we have a considerable number of mainly short inscriptions written in a very special type of ornamental script, the so-called Kadiri Quadrat Script. This mode of writing, which is mainly, but not entirely, confined to the Kadiri period, is characterized by the use of large, sculptured letters usually protruding in relief and, in many cases, fashioned into a square or oblong 'box'. These ornamental letters may sometimes become real puzzles, especially in the relatively frequent cases where the strokes and serifs have been thickened to such an extent that the empty space between the different lines of the *akṣara* is almost completely filled up or even reduced to a symbolic expression (which then normally assumes a decorative shape).

Although most of the extant examples are from Java and belong to the Kadiri period, its beginnings can be traced back to considerably earlier times⁶ while, on the other hand, there are examples attesting its survival long after the end of the Kadiri period. In addition, the script is not limited to eastern Java as some of the most characteristic examples are from Bali (plate VI a). Though occasionally used in longer inscriptions, such as the inscription on the back of the Ganeśa of Karangréjo dated 1124, this Quadrat Script was used mainly for short inscriptions above the entrances of caves and temples or on images. In one particular case a brief inscription *pañjalu jayati*, 'Pañjalu (i.e. Kadiri) is victorious', written in Quadrat, is found on the left and right of the royal seal of an inscription written in normal Kadiri script, viz. the stone inscription of Ngantang (kac. Ngantang, kaw. Pujon, kab. and kar. Malang, Jawa Timur) of king Jayabhaya, dated 1057.⁷

5. *Script of Bali, Sunda, and South Sumatra.* Most of the written sources of this entire period (925-1250) are from eastern Java, but there

⁶ It is probably a descendant from the ornamental letters and numerical symbols sculptered in relief in e.g. Jalatunda on the eastern slope of the Pénanggungan south of present Surabaya (cf. the figures 899 on figure 76 of W. F. Stutterheim, *Cultuurgeschiedenis van Java in Beeld*, 1926).

⁷ Cf. N. J. Krom, *Hindoe-Javaansche Geschiedenis*, 2nd edn., 1931, p. 294. Krom read the first part of the inscription correctly but failed to recognize the *ja* (he read *wiyati* like Brandes). The availability of many more inscriptions in Quadrat Script, unknown to Brandes and Krom, establishes the reading beyond doubt. Berg's scepticism about the reading ('Herkomst, Vorm en Functie der Middeljavaansche Rijksdelingstheorie', *Verh. Kon. Ak. Wet.*, Afd. Lett., N.R., LIV, 1953, pp. 118 f.) is unjustified.

are also a considerable number of inscriptions from Bali as well as a few from Sunda (western Java) and southern Sumatra.

The inscriptions from Bali are of particular interest. They are, apart from some very short inscriptions, the oldest extant texts from this island. The inscriptions from A.D. 1022 on are almost all in Old Javanese, but the earlier ones, about thirty in number, in Old Balinese. It is remarkable that almost all the inscriptions from Bali in this period are inscribed on copper plates, whereas all the authentic inscriptions of Java (including Sunda and also Sumatra) are on stone.

The size of these Balinese copper plates is quite different from those of Java in the preceding period. Their length is generally around 40 cm, their width between 7 and 9 cm, a ratio of about 1:5 (against 1:3 or 1:2½ for the Javanese plates). It would seem that this particular size of the Balinese plates, allowing for five or, more often, six lines of writing, reproduces the shape of palm leaves (*lontar*). This strongly suggests that the texts were originally written on palm leaf and subsequently copied on copper plates.

The script shown in the sample (Plate III c) is from an Old Balinese inscription dated 1050.⁸ It is quite similar to that of the contemporary inscriptions from Java, such as the Calcutta Stone Inscription of Airlangga (A.D. 1041). It is remarkably regular, square with generous interlinear spacing (about twice the height of the *aksaras*) but, in contrast to the Javanese inscriptions, it is monoline and slightly sloping. Instead of the painted serifs of the Calcutta inscription the serifs of the Bébétin plates have a hook-like appearance. This manner of writing would confirm the conclusion reached on the basis of the format of the plates and so gives further support to the assumption that the plates were copied from *lontar* leaves or, at least, were engraved by a scribe who was trained in writing on *lontar*.

Also the inscriptions of Sunda and South Sumatra are in scripts closely akin to those of eastern Java. The stones of Ci Catih (Tjitjatih near Cibadak, Kac. and kaw. Cidabak, kab. Sukabumi, kar. Priangan Barat, prop. Jawa Barat), dated 1030, show two different types of writing, one upright, square and monoline, more akin to the script of the East Javanese inscriptions of the time of Siñdok than to the contemporary script in

⁸ Cf. R. Goris, *Prasasti Bali*, Nos. 002, 301, and 403. The original inscription (Goris, *op. cit.*, I, 1954, p. 6 and pp. 54-55, and II, pp. 120-122) was dated 896 but it was twice continued: in 989 and in 1050. As the inscription is engraved all in the same script and apparently by the same hand only the last date is significant for palaeographic purposes.

East Java, the other in a sloping, cursive style reminiscent of (but by no means identical with) Central Javanese Kawi of the end of the ninth century. The precise relationship poses problems for which no definitive conclusion is possible with the materials at our disposal. It is possible that the scribe or scribes responsible for the Ci Catih inscriptions used specimens from East and Central Java as examples on the basis of which they prepared the inscriptions to be cut into the stones. Another possibility, more likely in the present writer's opinion, is that we have in the Ci Catih scripts examples of a mode of writing borrowed from other parts of the island in an earlier period but thenceforward undergoing only very few changes. Such conservatism would by no means be surprising in an area far removed from any of those where script was more regularly used.⁹

A few inscriptions from Southern Sumatra, in particular the stones of Bawang or Hujung Langit, probably dated 997¹⁰ and of Batu Bēdil near Talang Padang (kaw. Kotaagung, kar. Lampung) are written in scripts which appear similar to the square type of Ci Catih. Both are, however, badly withered and therefore do not lend themselves well to a more detailed palaeographic analysis. A much better preserved inscription with the date 1024 is engraved on the pedestal of a bronze statue of Lokanātha flanked by (probably) two Tārās.¹¹ As was the case also with the Ci Catih inscriptions the script looks much older than the type which one would have expected at this time. It is square, monoline and moderately sloping and corresponds in all respects to Early Kawi of the Kayuwangi-Balitung period. There can be little doubt that the use of such an archaic type of script should also in this case be regarded as a conservatism understandable for an area which was apparently far removed from the hub of activity in the Indonesian archipelago.

A few other inscriptions may be mentioned in this connexion. An Old Malay inscription from temple II at Joreng, Tapanuli, North Sumatra,¹² and the Old Malay part of a bilingual inscription (Old Malay and Tamil)

⁹ Cf. below Chapter IV, 4.

¹⁰ N. J. Krom, *Oudh. Versl.*, 1913, p. 13; *Oudh. Versl.*, 1914, p. 192; A. N. J. Th. à Th. Van der Hoop, *Megalithic Remains in South Sumatra*, 1932, p. 59; N. J. Krom, *Hindoe-Javaansche Geschiedenis*, 2nd ed., 1931, p. 299, note 8; L.-C. Damais, *B.E.F.E.O.*, XLVI, fasc. 1, 1952, pp. 100 f.; L. fasc. 2, 1962, pp. 275-288.

¹¹ H. Kern, 'Twee Buddhistische inscripties van Sumatra nader verklaard', *Not. Bat. Gen.*, XXVII, 1890/91; reprinted in *Verspr. Geschr.* VII, 1917, pp. 142-144 (with facsimile). For a photograph of the standing Lokanātha with one Tārā (the other one is lost) see F. M. Schnitger, *The Archaeology of Hindoo Sumatra*, 1937, plate XL.

¹² F. M. Schnitger, *Oudheidkundige Vondsten in Padang Lawas*, 1936, p. 39; the transcription is that by F. D. K. Bosch. Cf. also L.-C. Damais, 'Études d'Épigraphie Indonésienne', III. Liste des principales inscriptions datées de l'Indonésie, *B.E.F.E.O.*, XLVI, fasc. 1, 1952, pp. 100 f.

at Porlak Dolok, also in Padang Lawas, Tapanuli, North Sumatra,¹³ are dated 1179 and 1213 respectively, but are both written in a square type of Kawi script which one would have been inclined to date centuries earlier if the dates had not been beyond doubt. In the present writer's opinion the famous inscription of Singapore, of which only a few fragments remain (after it had been blown up)¹⁴ also appears to belong to this period. The letters are square, monoline and upright, strongly reminiscent of the forms found in the above mentioned inscriptions from Sunda and Sumatra. If the inscription had originated from eastern Java it should, on the basis of its script, be dated back to the first half of the tenth century on account of its close resemblance with the oldest style of Later Kawi. The continued use of such script in western Java and Sumatra for centuries afterwards necessitates, however, great caution in dating the Singapore inscription. At the present state of our knowledge, i.e. before anyone succeeds in reading more than a few isolated syllables, there can be no doubt that it should be assigned to the period of Later Kawi but attempts at more precise dating within this vast period must necessarily remain speculative. The negative conclusion that the inscription is much older than the Majapahit period seems, however, beyond doubt.

The stone inscription of Jaiya (Chaiya), southern Thailand, may fall geographically outside the area dealt with in this volume but belongs palaeographically clearly to maritime South East Asia. It is unambiguously dated A.D. 1230,¹⁵ but the writing is, compared with that of the inscriptions of eastern Java and Bali of the Kañiri period, very archaic; it strangely recalls the script of the Ligor inscriptions from the same area, but dated 775—four and a half centuries earlier! Yet, there are a few details that may betray its late date. The most significant of these is the

¹³ Oudh, *Versl.* 1914, p. 112; Oudh, *Versl.* 1920, p. 70; L.-C. Damais, *art. cit.*, p. 100 f.; F. M. Schnitger, *The Archaeology of Hindoo Sumatra*, p. 100.

¹⁴ The Singapore Stone Inscription, discovered in 1819, was later blown up by the Public Works Department when it was felt that the stone had become a rallying point for anticolonial resistance. Some badly withered fragments have been recovered; they found their way into the Raffles Museum at Singapore and the Indian Museum at Calcutta. For a detailed account cf. G. J. Rouffaer, *Bijdr. Kon. Inst.*, 77, 1921, pp. 35-67 and also N. J. Krom, *Hindoe-Javaansche Geschiedenis*², 1931, p. 409. Excellent photographs and facsimiles were published by S. Durai Raja Singam, *India and Malaya through the Ages (A Pictorial Survey)*, third edn., 1954, pp. 47-49. This work repeats the popular assumption that the stone belongs to the Majapahit period and would have commemorated the Javanese conquest of Singapore, although there is no basis whatever for this idea which undoubtedly arose among circles which recognized the script as Old Javanese but were unable to read it.

¹⁵ G. Cœdès, 'Le Royaume de Crivijaya', *B.E.F.F.O.*, 1918, No. 6, pp. 1-37, especially pp. 32 f. and plate II c; G. Cœdès, *Recueil des Inscriptions du Siam*, II, 2nd edn., 1961, pp. 41 ff. Also cf. Amaradasa Liyanagamage, *The Decline of Polonnaruwa and the Rise of Dambadeniya*, 1968, pp. 133-135.

fact that *aksaras* like *ta*, *ga* and *śa* do not end at the base line but are from there continued up to the top line, where they end in a little hook.

Finally, the Tamil inscription of Lobok Tua near Barus north of Sibolga on the west coast of north Sumatra, dated 1088, needs only be briefly mentioned in this context. As it is written in South Indian Tamil script it will be discussed in chapter V.

CHAPTER FOUR

JAVANESE AND REGIONAL SCRIPTS OF THE MAJAPAHIT PERIOD (c. A.D. 1250-1450)

This period is marked by the political dominance of eastern Java which, from the capital of Majapahit near present Trowulan at about 50 km south-west of Surabaya, controlled most of the Indonesian archipelago and made its power felt far beyond. It seems, however, that this control did not entail any attempt by the central power to impose cultural standards upon the regions. On the contrary, one has the impression that the relationship with Majapahit stimulated various regions to develop their local cultures including their own varieties of script.¹

In Java the transfer of authority from Kadiri to Singhasari, which took place in 1222 according to Old Javanese texts,² is marked by a serious lacuna in the range of the inscriptions, as not a single text dated between 1205 and 1264 has hitherto come to light. An even wider gap appears in Bali with no inscriptions between 1204 and 1296. Only in central and northern Sumatra, apparently unaffected by events in eastern Java, there is at least one inscription datable to the first half of the thirteenth century.

Despite the gap of more than half a century the script of the early Singhasari inscriptions is quite similar to that of the Kadiri period and seems to suggest continuous development, but there is a curious difference of another kind. The great majority of the inscriptions of the Singhasari and Majapahit periods are on copper plates (approximately twice as many as on stone), whereas no copper-plate inscription of the Kadiri period has hitherto come to light. It is true that we have a number of copper plates which purport to have been issued in the time of Siñdok and Airlangga but all these are clearly copies or renovations of older inscriptions made in the Majapahit period,³ as the script is that of the fourteenth century.

¹ It should be emphasized that, although there is a relationship between politics and script, this is not of a simple nor a necessary kind. 'Expansion' of a type of script is a direct consequence of mobility of scribes which may bear no relationship to political expansion.

² In particular the *Nāgarakṛtāgama* and the *Pararaton*. There is no confirmation of this date in epigraphic sources, although it may be argued that the very existence of a sixty-one year gap in the inscriptions (see L.-C. Damais, 'Études d'Épigraphie Indonésienne, III. Liste des principales inscriptions datées de l'Indonésie', *B.E.F.E.O.*, XLVI, Fasc. 1, pp. 72 f.) would be quite consistent with a temporary decline of central power due to the rebellion which led to the foundation of a new capital at Singhasari.

³ Those inscriptions which, as L.-C. Damais has pointed out, give correct dates (i.e. dates showing

There is also no proof that the prototypes on which the Majapahit copies or renewals were based were themselves copper plates; they could, in fact, have been stone inscriptions or, more probably, charters written on palm-leaf (*lontar*) and other perishable materials. In many respects, surely for palaeographical purposes, these copper-plate inscriptions should therefore be classified as documents of the fourteenth century.

For eastern Java the period under consideration can be subdivided into two sections with a dividing line around the middle of the fourteenth century. As is normally the case in the history of writing there is no clear separation between the two sections but some tendencies, present already in earlier time, become more and more pronounced and gradually give the types of script a different aspect. In the third section the earliest palm-leaf manuscripts will be considered, followed by four sections on types of script used outside eastern Java.

i. The script of the *copper plates of East Java* of the latter half of the thirteenth and the first of the fourteenth century resembles that of the Kadiri period, but there are important differences:

a. The *akṣaras* lose their elongation and return to the squareness of the tenth-century inscriptions.

such details as week days consistent with the other elements of the dating), must be based on authentic inscriptions, but this does not exclude major changes in the actual contents of the inscriptions. Cf. L.-C. Damais, 'Études d'Épigraphie Indonésienne. IV. Discussion de la date des inscriptions', *B.E.F.E.O.*, XLVII, 1, 1955, pp. 7-290; cf. p. 19: 'Le fait que les données de la date soient immédiatement réductibles nous force à admettre que ce document n'est pas un faux fabriqué de toutes pièces comme le voulait Brandes, mais simplement une copie tardive, fort peu soignée il est vrai. On comprend que Brandes, énervé par la légende alors acceptée par certains de l'existence de Majapahit au IX^e siècle EC., laquelle s'appuyait principalement sur le nom de Majapahit qui apparaît à la fin de cette inscription, se soit appliqué à la refuter définitivement.'

Après ce que nous avons dit dans EEI, I et III, au sujet des copies tardives à Java, cette mention de Majapahit n'a rien de surprenant car elle indique simplement que c'est dans cette ville que le texte a été copié. Elle ne saurait donc être utilisée comme preuve de l'existence de cette capitale javanaise au IX^e siècle EC. Au contraire, cette mention nous apprend que la copie ne peut être antérieure à 1215 šaka. A en juger par la variété d'écriture employée, elle est même nettement plus tardive: nous suggérons la fin du XIII^e ou le début du XIV^e siècle šaka.'

There is a long note attached to this passage, which does not need to be reproduced in full. There Damais argues against Brandes that the numerous mistakes in the inscriptions (even in the names and titles of the king) are not by themselves sufficient proof that the inscription is a complete fake, as they can be attributed to scribal errors. Damais overlooks, however, the fact that it is not merely a question of mistakes but that the inscription as a whole is composed in a manner totally different from that current in the ninth century with long lists of *mañilala drawya haji* (tax farmers of different kinds), of foreign *kraton* servants (Khmers, Chams etc.), precise boundaries of the freehold etc. Details of this kind have never yet been found in this form until centuries after the date of the inscription. They cannot therefore have been copied from an eighth-century document. The fact that the details of the dating are correct carries little weight by itself; it merely proves that the fourteenth-century archives possessed a correct eighth-century date on an inscription or other text. It would follow from this discussion that a text such as K.O. II cannot be regarded as a copy at all, nor is it necessarily a falsification. For all practical purposes, in particular, for the script, it should be regarded as a fourteenth-century document.

b. Most descending strokes start with a sharp bend to the right and then bend leftwards in an elegant curve. If there are any connexions with horizontals there is an acute-angled connexion at the top bar but a connexion with the bottom bar is rounded off.

c. No serifs are used on the left-hand top whenever there is a top bar; only the *akṣaras* with open top retain a serif, which is, however, much reduced in size. On the other hand, the right-hand top of the letters is provided with a serif-like downwards-pointing hook, which normally descends to about a third of the *akṣara* height but may sometimes go down to the middle. This is a feature anticipating later developments: from the middle of the fifteenth century this 'hook' has grown into a full-fledged vertical stroke, as in modern Javanese script.

d. Some letters which are very narrow at the top are broadened by the addition of a top bar. This development is particularly striking for the *ra*. In Early Kawi the *ra* is no more than a plain vertical provided with a serif, but already in Later Kawi the serif grows into a real 'head'. In the Majapahit period this development is further continued when the 'head' develops into a top bar. The vertical, on the other hand, starts with a sharp bend to the right, then runs down to the bottom, where it ends in an elegant left-ward curve. The result is vaguely reminiscent of the figure 5. A similar tendency is noticeable for a number of other *akṣaras*, in particular for the *wa*, *bha*, *ca*, *tha*, *dha* and *da*. As a result of this broadening of the top of some *akṣaras* the difference in width between the *akṣaras* is reduced. Thus, in Early Kawi the *na* is about four times as wide as the *ra*, but in this period this ratio is reduced to about one-and-a-half. This is because, while the *ra* has broadened, the *na* has shrunk owing to the tendency at writing the verticals close together. This convergence strongly suggests a more general tendency, viz. that of giving all *akṣaras* approximately equal width, although this is not completely achieved in the case of *na*, *ya* and *gha*. Even in the case of these very wide letters, however, the tendency towards equal width can be inferred from the more condensed writing of the verticals.

All these features appear clearly from the example given on plate VII *a*, an extract from the Pēnanggungan Plates of Krētarājasa, dated 1296. It illustrates Majapahit calligraphy at its best with regularity carried to perfection. Although not all Majapahit copper plates are as beautifully inscribed as this set it can in general be stated that the standard of calligraphy was very high during this period.

The script of the stone inscriptions of this period is equally calligraphic but possesses, in addition, a monumental quality. The Singosari Stone

Inscription of 1351 shows this script at its best.⁴ The letters are sober but beautifully proportioned with perfect regularity. The tendency towards equal width for all individual *akṣaras*, though noticeable, is less pronounced than in the copper-plate inscriptions. The most striking feature of this inscription is, however, the roundness of the letters, in particular *wa*, *tha*, *ga*, *ka*, *śa* and *ta*. The inscription is, moreover, of particular palaeographic interest because it gives an idea of the precise manner in which the writing was carried out. Thus, it can be seen that the *ta*, for instance, was started at the top with a left-turning spiral; subsequently a descending stroke, bending to the right and provided with a serif, was added. Many other letters were written in two parts. There seems to have been a strong preference for descending, as opposed to ascending, strokes and a less pronounced preference for strokes running towards the right. The analysis of tendencies of this kind is not without interest for, as has been set out in the 'Introduction', it is, for a correct understanding of the history of the script, essential that one should try to obtain as precise an idea on the manner and technique of writing as is possible with the limited data at our disposal. The form in which ancient writing is preserved on the inscribed stones or copper plates represents the final result of a long process: a 'lithic translation' of an original document written on palm leaf or other perishable material.⁵ If we assume that the stone-cutter would have tried to reproduce as accurately as possible the writing of his example and would, for that purpose, have chosen the most convenient position and angle,⁶ it would follow that the type and style of writing, even idiosyncrasies in some cases, were those of the scribe responsible for the final draft. It is therefore to him that the analyses of the mode of writing as proposed in this section and elsewhere apply.⁷

2. *East Javanese inscriptions from c. 1350 to 1450 A.D.* All the charters that have come down to us are copper-plate inscriptions. Apart from a considerable number of very brief inscriptions on stone (all four-figure dates) and the Troloyo tomb stones in Arabic script with numerals in

⁴ It is, of course, this date (mentioned in line 3), not the earlier one mentioned in line 1 (A.D. 1292), that has to be regarded as the date on which the inscription as a whole was engraved.

⁵ Stanley Morison, *Politics and Script. Aspects of authority and freedom in the development of Graeco-Roman script from the sixth century B.C. to the twentieth century A.D.*, 1972, devotes many interesting pages to the discussion of this important aspect of writing. Thus, with reference to the tilted O in Roman inscriptions of the second century A.D. he uses the formulation 'a lapidary translation of an originally calligraphic pattern'.

⁶ The precise manner in which he worked must have depended on the size and hardness of the stone, on his tools, and on his craftsmanship.

⁷ It is likely that the stone-cutter may in some cases have adapted the mode of writing to the requirements of his tools and materials but his contribution to the style of the final result was no doubt of secondary importance, except probably for the size of the letters.

Kawi, which will be briefly examined in the last part of this section, the discussion will be limited to an analysis of the script of the copper plates. Among these at least three different styles can be distinguished:

a. Some of the inscriptions are written in an ornamental script, which, though clearly based on the script discussed in the first section, shows some interesting differences. The charter of Rēnēk, probably dated 1379,⁸ shows a very much stylized script, which is square and monoline but has all the left-hand descending verticals of the *akṣaras* provided with roundish serifs at the top and bottom. Most other verticals are serifed only at the top, but interesting distinctions can be noticed: thus the serif is put over the third (descending) vertical of the *ha*, but not over the third (rising) vertical of the *la*. The *ra* assumes an interesting shape; it is written in two parts: a waving top line over a comma-like vertical section. The *na* has a little descending hook running from the middle of its height. There are many other characteristic features of this kind. They do not, however, require a detailed discussion as they are apparently stylistic features bearing no consequence for the later development of Javanese writing.

b. A different style of ornamental script can be seen on the Copper Plate Inscription No. V from Trowulan (near the ancient site of Majapahit, kac. Trowulan, kaw., kab. and kar. Mojokerto, Jawa Timur), dated A.D. 1387.⁹ Here the serifs are roundish hooks invariably attached to the top of most right-hand verticals, but there are some exceptions: *ha*, *na*, *ñā*, *ai-*, *i-*, as well as all the numerals are *sans-serif*. The serif also disappears if -ā is attached to the *akṣara*. All left-hand verticals, on the other hand, have become wavy with a pronounced bulge to the right and acute, but rounded-off, connexion with the base lines. Of the individual *akṣaras* only *ra* needs special mention; the serif is here drawn down to the middle, or to beneath the middle, of the height, thus almost developing into an additional stroke and sometimes creating the impression that *ra* is meant.

c. Again a different style appears from another copper-plate inscription

⁸ W. F. Stutterheim and Th. Pigeaud, 'Een Javaansche oorkonde uit den bloeitijd van Madjapahit', *Djāwā*, VI, 1926, pp. 195-204 (with illustrations of plates 1b and 2a). Cf. also Th. Pigeaud, *Java in the Fourteenth Century*, I, 1960, pp. 118 f.; III, 1960, pp. 169 f.; IV, 1962, pp. 433-442. See also plate VII c.

⁹ *Oudh. Versl.* 1918, pp. 172 f. with illustration. The precise date of this as well as some other Trowulan copper-plate inscriptions is not entirely beyond doubt. In these inscriptions the date is given in abbreviated form at the end of the inscription. Thus, the Rēnēk inscription is dated in the 'year 1'. The editors rightly concluded that this must mean 1301 (Saka = A.D. 1379), just as we often speak of the year 73.

from the same site, viz. Trowulan No. VI.¹⁰ The wavy verticals have been replaced by straight and elongated verticals. The angularity of this script almost recalls that of the script of the beginning of the tenth century (Chapter III, Section 1) but there are important differences reflecting the changes in individual letters during the intervening four centuries. This difference is, for instance, clearly seen in the shape of the *ra*. In contrast to the tenth-century shape—a serifed vertical stroke—it has now grown into an *akṣara* of average width, somewhat reminiscent of an angularly written Arabic figure 5. Although Trowulan VI is undated the proper names and other details of the contents leave no doubt that it is roughly contemporary with the two preceding inscriptions and belongs to the last four decennia of the fourteenth century.

The co-existence of several varieties even in an area of limited size such as eastern Java causes little surprise; it is in fact consistent with our idea of Javanese culture of that period in general, especially as expressed by the poet in the famous words *bhinneka tunggal ika*. As to the stone inscriptions of this period these are, as indicated earlier, limited to the Arabic inscriptions with Old Javanese numerals on the tomb stones of Trooyo near Trowulan¹¹ and a large number of dates, expressed by numerals, found on numerous monuments in eastern Java, e.g. those of Candi Panataran (near Blitar)¹² and those of the Gunung Pénanggungan south of Surabaya.¹³

The Trooyo inscriptions are all on Muslim tomb stones (*maésan*) of a characteristic shape. These have an Arabic inscription, a quotation from the *Qur'an* or other sacred texts, on one side and a date, expressed in Old Javanese numerals, often within rich ornamental relief, on the other. The style of the numerals corresponds closely to that of the Majapahit copper plates with all the different styles represented. Thus, Trooyo II shows the square style with wavy verticals and horizontals,¹⁴ similar to that of Trowulan V (see *supra*, 2 b); Trooyo VI,¹⁵ on the other hand, has the straight and elongated verticals of Trowulan VI, but without the angularity of the latter. On most *maésans* the figures of the date stand clearly out in bold relief, but in Trooyo VIII the date is almost

¹⁰ *Oudh. Versl.* 1918, pp. 174 f. with illustration.

¹¹ L.-C. Damais, 'Études Javanaises. I. Les Tombes Musulmanes datées de Trālāyā, B.E.F.E.O., XLVIII, fasc. 2, 1957, pp. 353-415, plates XV-XXXIV.

¹² N. J. Krom, *Inleiding tot de Hindoe-Javaansche Kunst*, 2nd edn, II, 1923, pp. 250-280.

¹³ V. R. van Romondt, *Peninggalan-peninggalan Purbakala di Gunung Penanggungan, Dinas Purbakala Republik Indonesia*, 1951, pl. 39 and 40.

¹⁴ Photograph O.D. 1561; reproduced by Damais, *op. cit.*, pl. XVIII.

¹⁵ Photograph O.D. 1580; Damais, pl. XXV-1.

hidden in elaborate garlands and other ornamental patterns.¹⁶ Here, at least, it seems as though the writing of the Old Javanese numerals was influenced by Arabic script. In other cases such influence is not distinctly visible, but everywhere the style of the numerals appears to be consistent with that of the Arabic inscriptions, as well as with the ornamental designs.

We have numerous other examples of four-figure dates in this period, almost all belonging to temple buildings. In this period it had become customary to date monuments by means of sculptured numerals within a raised border on a separate oblong block of stone fixed above the main entrance. As the Javanese sanctuaries of this period each consisted of a large number of different buildings founded on different dates one may find quite a number of numerals on the buildings of one temple complex. These dates are of great importance as a means of determining the order in which the individual buildings were founded, thus revealing the 'time-scale' of the construction. The correct reading of the numerals has now been established, mainly owing to the detailed analysis by Damais.¹⁷

3. To this same period from the middle of the fourteenth to the middle of the fifteenth century also appear to belong *the oldest extant Javanese manuscripts*. These come from the western part of the Javanese-speaking area and are particularly associated with the *kraton* of Cébon (Cheribon).¹⁸ It is difficult to explain why the oldest known manuscripts belong to this part of the island rather than to Central Java proper and East Java. Could it be because the manuscripts were read by fewer people in West Java so that no need for copying arose?

An excellent example of manuscript writing in this period is *Codex Leidensis 2266*, the text of the Old Javanese Buddhist story of Kuñjarakarṇa.¹⁹ It is, as usual, written on palm leaves but not, as most manuscripts, on those of the *lontar* palm but on the much thinner leaves of the *nipah*. The leaves were cut into oblong strips of 27.5 × 3 cm and had holes in the middle and on either side, through which they were held together by pieces of bamboo string.

The letters are predominantly monoline, approximately square and

¹⁶ Photograph O.D. 1623; Damais pl. XXVII.

¹⁷ Cf., for instance, his discussion of the 4 (often misread as 5) in his above-mentioned article on the Troloyo tomb stones, pp. 395-399 and of the 7 and 8 on pp. 406-408.

¹⁸ Th. Pigeaud, *Literature of Java*, I, 1967, pp. 143-145; III, 1970, pp. 67-69. For a different view see G. W. J. Drewes, *Een Javaansche Primitieve uit de Zestiende Eeuw*, 1954, pp. 7-9.

¹⁹ H. Kern, 'De Legende van Kuñjarakarṇa', *Verh. Kon. Ak. Wet.*, Afd. Lett., N.R., III, No. 3, 1901, with facsimiles of fol. 5 and fol. 8, pp. 3-90; reprint in *Verspr. Geschr.*, X, pp. 55 ff.; Th. Pigeaud, *Literature of Java*, I, 1967, pp. 70 f.; III, 1970, pp. 56 f. and plate 22 on p. 21.

moderately sloping. Most descending strokes are serifed. The serifs point left on the left-hand strokes, but right on the right-hand ones, except for the *ya*, *pa*, *sa*, and a few others. The *ya* was apparently written in three strokes, the first turning right at the bottom, the third turning left.

Of the individual letters the most interesting one is *na*. In the earlier inscriptions the bottom stroke is attached to the vertical either with or without a loop but in the latter case (the normal shape in Early Kawi) the connexion is made just above the bottom end of the vertical stroke. In Later Kawi, especially the script of Airlangga and the Kañiri period, as well as in Majapahit script, the looped form clearly predominates although there are some examples of inscriptions with the non-looped *na*, such as the beautifully written Singosari inscription of 1351.²⁰ In the period under discussion both forms occur but the most remarkable development is the fact that the connexion between the vertical and the stroke running down to the right is made half-way or even above the middle of the vertical. This can clearly be seen on the Rēnēk Copper Plate (plate VII-c). This development has progressed further in the Kuñjarakarṇa manuscript where the connexion is made just under the top, but the (left-hand) vertical ends at the base line in a kind of thick dot at the very place where in earlier time the connexion with the horizontal stroke was made. Apart from this form of the *na* and a few other details the type of script of this manuscript is fairly close to that of the Majapahit copper plates.²¹

The Kuñjarakarṇa manuscript is not dated but the analysis of the script, as given above, fully confirms Kern's judgment that it was written in the second half of the fourteenth century.²²

4. *The inscriptions of Western Java* of about this period are palaeographically very interesting. They are associated with the emergence of a Sundanese centre of power at Pajajaran, a few miles south of present Bogor. The principal sites of the inscriptions, all in Old Sundanese language, are Batutulis (the ancient site of the capital of Pajajaran),²³ Kēbantēnan (a few miles east of present Jakarta),²⁴ and Kawali (kac. and

²⁰ W. F. Stutterheim, *Cultuurgeschiedenis van Java in Beeld*, 1926, fig. 104 on p. 75; cf. plate VII-b.

²¹ The *na* in this manuscript has become quite similar to the *bha* of the inscriptions.

²² Pigeaud gives no estimate of the date of the manuscript, except for the statement that 'the text of the Kuñjara Karṇa legend probably is not very old' (*Literature of Java*, I, p. 70).

²³ *Batutulis* means 'inscribed stone': it is this stone, still *in situ*, which gave the name to the village.

²⁴ The inscription is on copper plates which were in the possession of an Indonesian resident of Kēbantēnan but its real site of origin is unknown. This inscription, as well as the two others mentioned, has been discussed with great detail by C. M. Pleyte, 'Het Jaartal op den Batoe-toelis nabij

kaw. Kawali, kab. Ci-amis, kar. Cérbon, Jawa Barat). The Batutulis inscription is probably dated 1333, the others are not dated but, though considerably later, have certainly to be assigned to the latter half of the fourteenth century on account of their script and contents.

The Kawali inscription, illustrated on plate IX-a, shows Old Sundanese script in its typical form. The *akṣaras* are sloping and approximately square, but with considerable variations. The lines are separated by horizontal bars, a very rare but not unique feature in Java but common elsewhere, notably in Ceylon. A number of *akṣaras* have undergone changes which render them nearly unrecognizable to those used only to the eastern Javanese script of the period. The most salient features are the following:

a. The *ma* is expressed in three unconnected parts: two small curves one above the other, to which a sloping vertical, bending left at the bottom, is added.

b. The *ya* is transformed into two symmetrical, but unconnected, parts. This astonishing feature can only be explained if it is assumed that the central vertical of the original letter was written twice, first upwards, then downwards (as may easily happen if one writes on palm leaf with a stylus).

c. The *sa* is also split into two unconnected, but equal, parts, which each could be described as the figure 7 as written in German.

d. A single figure 7 with cross bar, but surmounted by a curve, is used to express the *ra*.

e. The initial *a-* is expressed by a complicated sign: a long zigzagging vertical ending in a loop well below the base line, together with a little triangle at the right top.

f. The most interesting vowel marks are those for *-i*, expressed by two little descending bars at the right-hand side on top of the *akṣaras* and the *-e*, expressed in a similar manner but with three bars.

g. Finally, perhaps the most original feature of this script is the form of the *patèn* (*virāma*), which has developed into a real separate *akṣara* following that of which it 'kills' the vowel. It again looks like the Arabic figure 7, but with a bold cross bar cutting both the horizontal and the sloping vertical of the 7.

The origin of this script raises a serious problem. As Pajajaran emerged

Buitenzorg,' *Tijdschr. Bat. Gen.* LIII, 1911, pp. 155-220; C. M. Pleyte, 'De Patapaan Adjar Soeka resi', *Tijdschr. Bat. Gen.*, LV, 1913, pp. 281-428. The articles are accompanied by good illustrations and tables of the individual letter forms.

in the heyday of Majapahit one would have expected that its script was clearly based on that of the great empire. This is clearly not the case. The contemporary script of East Java, as described earlier, shows many features of which we find no echo whatever in the Sundanese script, while, on the other hand, most of the striking features of the Old Sundanese script are difficult to derive from Majapahit script. Some of the Sundanese letters, notably *pa*, *ha*, *la*, *ka* and *ta* have archaic forms recalling those of Early Kawi of the Central Javanese period. It would be difficult to understand why the Sundanese, if they had adopted (and adapted) Javanese script in the Majapahit period, should have reduced a letter like *ta* to something like its pristine shape. If it developed naturally in that way it would surely be a coincidence. It would seem much easier to account for the peculiarities of this script by assuming that the script of Pajajaran descends from a much older form of script in this part of the island, contemporary with Early Kawi. Such a script would have been used mainly for writing on palm-leaf and other perishable materials, no traces of which are ever likely to come to light. A similar explanation was suggested for the Ci-catih inscriptions of 1030,²⁵ and it would seem likely that the Old Sundanese script of the Pajajaran period is a later stage of the cursive type of script used at Ci-catih. In that case there would have been a latent development during the intervening three centuries. Such an interpretation, though necessarily conjectural in the absence of any written source belonging to the intervening period, would yield a satisfactory explanation for the peculiarities of the Old Sundanese script.

5. *The script of Central Sumatra*, represented by a considerable number of inscriptions of king Adityavarman (c. 1356-1375), is nearer that of Majapahit than the Pajajaran script, yet it is sufficiently different from the former to qualify as a separate type.

The script is square and upright, but not angular. On the contrary, most angles are rounded off. Many letters are serifed, but only on the right top, especially *ta* (second line of the sample on plate IX-b = line 10 of the whole inscription). The same is the case with e.g. *ka*, *ma*, *dha* and *sa*. The *wa* is peculiar in that it possesses two serifs, one almost touching the other. In addition, the following features give this script its own character:

a. Although some ligatures are expressed in the normal manner there are others in which the components are in juxtaposition, especially those

²⁵ Cf. chapter III, section 5, above.

the second element of which is *pa* and *sa*. Thus, in the second syllable of *kalpa* (second line of the sample) the *pa* is written on the right on the same level as the *la*, to which it is connected at the top. The common ligature *kṣa* (line 6) is written in a similar manner.

b. The *ta* has a very small loop, so that it could sometimes be mistaken for a *sa* or a *ga*.

c. The *ma* is of a remarkable shape. It consists of two parts: first a small curve just under the top line, then, and quite separated from this curve, an identical curve just above the base line, merging into a horizontal which runs along the base line for the normal *akṣara* width before rising to the top level.

d. Undoubtedly the most curious of all the letters is the initial *a-*, which could best be described as a *ga* with a *cakra* attached to its left leg (see line 6, the letter following *kṣa*). No similar form is known to me.

e. The *cakra* rises well above the top level, but towards the end it bends upwards, often pointing to the left. This is again a feature typical of the script of Ādityavarman.

f. A few other details need only be briefly mentioned here. These are the curious ligature *nīśa* (the fourth of line 5), the open-bottomed *ulu* (the first of line 6 and line 7), as well as the leftward extension of the top bars of *na* and *da*.

As to the origin of this Malayu script and its relation to that of Majapahit we face similar problems as for the Pajajaran script. As in the case of the latter it seems quite unlikely that the Malayu script should be derived from contemporary Javanese script. The development of the quite special forms of the *ma* and particularly the initial *a-* must have taken considerable time. One would therefore be inclined to assume a long period, possibly centuries, of local development of this script before it is revealed to us in inscriptions on lasting materials. Earlier inscriptions from Central Sumatra are not of great help. The most obvious comparison, that with the inscription of 1286 on the pedestal of the Amoghapāśa image of Padangroco/Sungai Langsat²⁶ is of no help: the latter is written in a type of script that agrees in all important respects with that of the contemporary inscriptions in East Java from where, as can be read in the inscription, the image was brought to Central Sumatra.²⁷ Before that there is a lacuna

²⁶ N. J. Krom, *Med. Kon. Ak. Wet., Afd. Lett.*, 5de Serie, vol. II, 1916, pp. 306-339, with illustration. The pedestal was found at Padang Roco near Sungai Langsat, Batanghari District, Sumatra Barat (i.e. West Sumatra). Most of the older publications in *Oudh. Versl.* 1912, 2nd trimester, No. 50 (p. 49). The image itself has on its back an inscription of Ādityavarman dated 1347.

²⁷ The Amoghapāśa and acolyths are, in fact, replicas of images of Candi Jago in eastern Java, prepared especially for Sumatra.

of more than two centuries to the preceding dated inscription from anywhere near the area ruled by Ādityavarman, viz. the Lokanātha statuette inscription of 1039. As discussed earlier,²⁸ the Lokanātha inscription is in an archaic type of script corresponding to Javanese script of about one and a half century earlier. It is therefore mainly on the basis of considerations of a more general nature, in particular the apparent conservatism of Sumatranese script as compared with that of eastern Java, that we have to conclude to the existence of a local type of script in Central Sumatra for which we obtain data only after it had undergone important changes. Only future discoveries may hopefully throw light on the precise nature of these changes.

6. In northern Sumatra, in particular the north-east coast of Atjeh (Aceh, Acin), we find before the end of the thirteenth century the oldest known Muslim inscription in Arabic script and language, viz. the inscription on the tomb stone of Sultan Maliku 's-Sāliḥ, dated A.D. 1297.²⁹ As this is not, strictly speaking, an Indonesian inscription—the stone apparently comes from western India (Gujarat), where it was probably also inscribed—it does not require a discussion here. Its presence in northern Sumatra has, however, a direct bearing on the history of writing in the island. It marks, in fact, the beginning of a large number of inscriptions in Arabic script continuing almost to the present age. The emergence of Arabic script did not, however, immediately entail the end of the Malayu script. We have, in fact, an important inscription from Minye Tujuh (near Lho Seumawe in Atjeh, Sumatra Utara (i.e. North Sumatra), dated A.D. 1380, written in a type of Malayu script but apparently influenced by the style of Arabic writing.³⁰ As in a number of other inscriptions, especially in Java and Bali,³¹ the letters are of the thick sculptured type and stand out in relief. Although the script is clearly derived from the Malayu type of Ādityavarman and has to be read from the left to the right, it gives, at a superficial glance, the impression of Arabic script of the kind used on the tomb stone of Maliku 's-Sāliḥ. This strongly suggests that the writing of the inscription was the work of a clerk trained in Arabic script who, though following the shapes of the

²⁸ *Supra* p. 44.

²⁹ J. P. Moquette, 'De Grafsteen van Soeltan Malik-al Saleh', *Rapp. Oudh. Dienst*, 1913, pp. 1-12 (with photograph).

³⁰ W. F. Stutterheim, 'A Malay shā'ir in Old Sumatran characters of A.D. 1380', *Acta Orient.*, XIV, 1936, pp. 268-279; G. E. Morrison, 'A Malay Poem in Old Sumatran Characters', *Journ. Mal. Br. R.A.S.*, XXIV, Pt. I, pp. 162-165; C. Hooykaas, *Perintis Sastera*, 1951, pp. 73 f. The works by Stutterheim and Hooykaas are accompanied by excellent photographs.

³¹ Cf., for instance, the script of the inscription on the back of the Gaṇeśa of Karangréjo, Plate VI b.

Malayu letters, expressed these in the style to which he was accustomed. For the reading of the inscription this particular style causes problems, most of which have, however, by now been solved.

7. In contrast to western Indonesia with its special types of script it appears that the islands of *Bali*, *Madura* and *Sumbawa* follow eastern Java more closely. The inscriptions from Bali of this period comprise half a dozen of copper-plate inscriptions and two not very well preserved stone inscriptions. The inscription of Campaga C, dated 1324, is in elegant script with square, slightly sloping *akṣaras* with contrasted strokes. Though stylistically different from any of the Majapahit copper plates it is nonetheless very closely related, especially to the style discussed earlier in section 2 b. As to the Stone Inscription from Gunung Panulisan, No. V, dated 1430, it is written in a script which seems later than the date proposed by Stutterheim and Damais.³² The *akṣaras* are remarkably round and the serifs at the right-hand top of the *akṣaras* have in many cases developed into real additional strokes. This script reminds one strongly of that of the so-called Girindravardhana inscriptions of Java dated 1486.

The rock inscriptions of Mandiraga³³ in the island of Madura and of Palama, Bima, in Sumbawa, though difficult to read, both undoubtedly belong to the Majapahit period and testify to Javanese influence in these islands. The former has probably to be dated A.D. 1320. As to the latter the materials available at present prevent us from assigning it to a definite date on palaeographic grounds: scholars have brought the presence of this inscription into connexion with the *Nāgarakṛtāgama* reference to a military campaign against Sumbawa (Dompo) in 1357.³⁴ On the whole, the paucity of inscriptions other than those of Java, Bali and parts of Sumatra and the Malay Peninsula prevents us from getting a true idea of the expansion of writing into many parts of the Indonesian archipelago. It would, however, be wrong to conclude from the absence of any inscriptions from many parts of the archipelago that writing was unknown there. The only correct inference to be drawn from the absence of inscriptions is that there was, in those areas, no tradition of having royal edicts

³² W. F. Stutterheim, *Oudheden van Bali*, I, 1930, p. 79; L.-C. Damais, 'Études d'Épigraphie Indonésienne. III. Liste des principales inscriptions datées de l'Indonésie', *B.E.F.E.O.*, XLVI, Fasc. 1, 1952, pp. 96 ff.

³³ Brandes, *Not. Bat. Gen.*, XXVII, 1889, p. 133; M. Muusses, *Oudh. Versl.* 1923, p. 104; L.-C. Damais, 'Études d'Épigraphie Indonésienne. III. Liste des principales inscriptions datées de l'Indonésie', *B.E.F.E.O.*, XLVI, fasc. 1, 1952, pp. 80 ff.

³⁴ G. P. Rouffaer, *Not. Bat. Gen.* XLVIII, pp. 110-113; N. J. Krom, *Hindoe-Javaansche Geschiedenis*, 2nd edn., 1932, p. 409. The only known ancient inscription of Lombok (W. F. Stutterheim, 'Een Inscriptie van Lombok', *Djāwād*, XVII, 1937, pp. 309 f.) probably also belongs to this period.

etc. engraved in stone or metal. This does not exclude the possibility of script being used for writing on more perishable materials such as palm-leaf, bamboo, tree bark etc. This may apply to such areas as southern Celebes as well as to Luçon, Mindoro, Palawan and other parts of the Philippines, where script was used in the sixteenth and seventeenth centuries. It seems likely that scripts of the Indonesian type, going back to prototypes of the Majapahit period or earlier, were in use there before these areas came into contact with Arabic or European script. Otherwise it would be difficult to understand how Indonesian types of script would have penetrated into these areas at a time when the use of either of these Western scripts was firmly rooted there. For there is little doubt that once a particular script is established in an area it becomes, no less than language, a symbol of national or regional identity and is then difficult to displace.³⁵ The Western scripts, on the other hand, may have penetrated into the areas where there was not yet an established script, especially among the circles of converts to Islam or Christianity. As to the period in which Indonesian scripts would have spread into the eastern part of the Indonesian archipelago and into the Philippines a little more will be said Chapter V, Section 2.

APPENDIX: LATER NĀGARĪ

As already discussed in the appendix to chapter II an early type of Nāgarī script, related to that used in contemporary Pāla inscriptions of northern India, was used in Java in a small number of Buddhist inscriptions all, or at least the three dated inscriptions, belonging to the last quarter of the eighth century. Little is known of the subsequent history of this type of script, except for the fact that it did not completely die out but continued to be used in some Buddhist monasteries. This can be concluded from the fairly numerous inscriptions on pedestals of bronze images, all Buddhist and invariably containing the text of the so-called Buddhist credo (*ye dharmā* etc.).³⁶ The only extant example of the use of

³⁵ Examples abound in South and South East Asia. Tamil, Sinhalese, Burmese, Thai, Khmer and Laotian scripts have become no less closely associated with the states in which they are used than the respective languages. On the other hand, the use of Latin script in the modern Indonesian language emphasizes the pan-Indonesian appeal of the language as well as the modern outlook of its people. Within the Indonesian Republic, however, the regional scripts, especially those of (central and eastern) Java and Bali, show no signs of decline.

There are, however, also cases where particular scripts have a religious association. Thus Arabic script is used for expressing a number of languages (including classical Malay) but is everywhere closely associated with Islam. There is a similar, though less striking, connexion between Mahāyāna Buddhism and so-called Pre-Nāgarī script; cf. the Appendices to Chapters II and IV.

³⁶ Cf. L.-C. Damais, 'Les écritures d'origine indienne en Indonésie et dans le Sud-Est Asiatique continental', *Bull. Soc. Ét. Indoch.*, N.S., XXX, 1955, pp. 365-382 and table A.

this Nāgarī script (but of a somewhat different type) outside Buddhist contexts is in the Sanur inscription in Bali.

A late revival of Nāgarī script in East Java is evident from two inscriptions, both at the back of Amoghapāśa bronze statues, dated in the reign of king Krētanagara (c. 1267-1292), as well as from a number of short inscriptions on Buddhist statues from Caṇḍi Jago.³⁷ The script of the Amoghapāśas has not yet been properly identified. It is quite different from that of contemporary inscriptions in Bengal, which are in different types of proto-Bengali. It shows greater affinity with the script of the Caulukyas of Gujarat of the thirteenth century, such as that of the inscriptions of Bhimadeva II,³⁸ from which it differs, however, in some important details. Thus, the *ta*, which there, as well as in all contemporary Nāgarī inscriptions in India as far as known to me, is expressed in a form which is quite similar to that of the modern Devanāgarī *ta*, has in the Amoghapāśa inscription an archaic shape, bending right instead of left (like a *bha*) as in the early Pāla inscriptions of the eighth and ninth centuries, as well as in some of the early Nāgarī inscriptions from Central Java.³⁹

As this script cannot apparently be related to that of any contemporary or near-contemporary inscriptions in South Asia one wonders whether it ought not to be regarded as a continuation of the early Nāgarī script in Java. We have seen in chapter VI that the particular features of the fourteenth-century scripts in Sunda and Malayu can only be properly explained if one assumes that writing developed in these areas independently from Javanese script. Such a hypothesis, however, remains incapable of proof owing to the paucity of written materials in those areas. For the Nāgarī types of script the situation is perhaps slightly less unfavourable as we have one longer and a number of smaller undated inscriptions of the intervening period. At the present state of knowledge the only justifiable conclusion is that the few examples of Nāgarī in Indonesia dated at some time between the end of the eighth and the end of the thirteenth century would not conflict with the assumption of such a nearly latent independent period of development.

The present writer is well aware that renewed contacts with northern India in this period are reflected in new influences in religion and icono-

³⁷ Cf. the excellent photographs published by J. L. A. Brandes, *Tjandi Djago*, 1904 (Archaeologisch Onderzoek op Java en Madura, I), plate 102 (Amoghapāśa) and plates 1 to 20 (other statues).

³⁸ Cf. the facsimile in *Ind. Antiqu.*, XI, 1881, p. 71 and p. 337. The letters are reproduced by Bühler in his *Indian Palaeography*, 1896, Plate V, Column XXI.

³⁹ Cf., for instance, the fragmentary Nālandā inscription of Dharmapāla in Hirananda Sastri, 'Nālandā and its Epigraphic Material', *Mem. Arch. Surv. India*, No. 66, 1942, plate X a.

graphy,⁴⁰ but these do not necessarily entail similar influences in writing. As already noted in section 7 of chapter IV, there is evidence to show that a particular type of script may become closely identified with a national, regional, or religious community and is then likely to last as long as the community continues to prosper. As there is no reason to assume that Mahāyāna Buddhism should ever have disappeared from Java between the end of the Śailendra period and the beginning of the reign of Kertanagara (Buddhist iconography shows clear evidence for a continuous history in Java), it is also likely that Nāgarī script should have remained in use in the intervening period. The use of Nāgarī script in ancient Java is perhaps in some respects comparable to that of Arabic script (*pègon*) in later times: the script of a minority used almost exclusively for the writing of religious texts.

At the present state of our knowledge it would be unwise to venture beyond the above formulation. A detailed comparative study of the Nāgarī-type scripts outside northern India—in South India, Cambodia, Java and Bali—is necessary for any attempts at solving the serious problems connected with the use of Nāgarī.

⁴⁰ The basic study of this topic is one by J. L. Moens, 'Het Buddhisme op Java en Sumatra in zijn laatste bloeiperiode', *Tijdschr. Bat. Gen.*, LXIV, 1924, pp. 521-580.

CHAPTER FIVE

INDONESIAN SCRIPTS FROM THE MIDDLE OF THE FIFTEENTH CENTURY—FOREIGN SCRIPTS

As this study is concerned with the history of script in Indonesia till c. A.D. 1500 the period to be dealt with in this chapter should not be longer than about half a century. Yet, following a discussion of the script in the second half of the fifteenth century, it would be proper to call attention to the problems concerning the relationship between this script and some modern Indonesian scripts known from about the seventeenth century. After a few words on foreign scripts used during the period under discussion—Tamil and Arabic—the main results of this study will be summarized.

1. There are a small number of *inscriptions from eastern and central Java dated or datable in the second half of the fifteenth century*. These are followed by a dark period in the history of Indonesian script, which lasts for more than a century until the end of the sixteenth century or later. By that time, however, the script in Java had already developed into its typically modern Javanese form and from then on till the present time it underwent only minor stylistic modifications. Although it is, at present, impossible to bridge the gap separating Old Javanese from modern Javanese script it seems that some of the changes visible in script of the second half of the fifteenth century point to the direction of modern Javanese script.

The still unpublished copper-plate inscription of Suradakan, dated 1447,¹ one of the longest and most learned of all the known Old Javanese inscriptions, still points to the past: its script is closely related to that of some Majapahit copper-plate inscriptions of the second half of the fourteenth century, such as Trowulan V and the Rēnēk plates.² Also the copper-plate inscription of Sēndang Sēdati, dated 1473, is written in

¹ It consists of no fewer than fourteen copper plates, each inscribed on both sides, and counts 154 lines of script. A considerable part of the inscription is in impeccable Sanskrit verse. The beginning and extracts from the middle of the inscription were published by W. F. Stutterheim, *Jaarb. Bat. Gen.*, 1938, V, pp. 117–119.

² Photo D.P. No. 1533. A good photograph of the estampage of one of the Jiyu inscriptions (O.J.O. XCIII of 1486) was published by Brandes-Krom, *Oud-Javaansche Oorkonden, Verh. Bat. Gen.*, LX, 1913, Plate 14, containing the end of the inscription.

traditional Majapahit script,³ although it is stylistically different from any of the fourteenth-century inscriptions. It is a very ornamental type of script, moderately sloping and acute-angled. The most curiously shaped *akṣara* is the *ma*, written in two detached parts, not unlike the *ma* of the Ādityavarman inscriptions.

A much more advanced form of writing, in some respects anticipating modern Javanese script, is used in the stone inscriptions of Jiyu and Padukuhan Duku, dated 1486 or only thirteen years later than the Sēndang Sēdati inscription. At first sight this script may recall that of the old inscriptions in Early Kawi owing to its roundness and absence of decorative elements, but more detailed observation soon reveals some striking features. In connexion with the copper-plate inscription no. V from Trowulan it was pointed out that the *ra* has a typical form in which the serif tends to develop into a second vertical stroke. This development has further proceeded in the Jiyu inscription, where some of the *ras* have two verticals as in modern Javanese script. Also other letters, such as the *ba*, *na*, *ha*, *ka*, *ñā* and a few others, have an additional vertical stroke, sometimes giving the impression as though an *-ā* was attached. That this is, however, not the case appears from the fact that the additional stroke is also used if there is another vowel such as superscript *-i* or even more clearly from the use of one more vertical stroke for *-ā*, as in *rā* in the many occurrences of the name Brahmarāja in the Jiyu inscription. Another interesting detail is the form of the *ja*. In all earlier Kawi scripts the *ja* can be described as a vertical stroke to which horizontal strokes, of approximately the same size, are attached to both the top and the bottom with a usually slightly shorter horizontal stroke in between. In the Jiyu script, however, the end of the bottom horizontal stroke is connected to the middle stroke, while the latter becomes disconnected from the vertical. The whole letter is apparently written without lifting the writing tool: starting from the right-hand top the top stroke is drawn to the left, followed by the vertical and the bottom stroke from left to right; subsequently the tool is turned up towards the middle of the vertical but, before getting there, it is moved again to the right in an elegant downward bend. The tool, in this case, was a brush rather than a stylus. The final result is different from the modern Javanese *ja* (where the central part is connected with the *upper* horizontal stroke) but the general principle behind the expression of the shape is similar.

2. *Inscriptions from Central Java (1439-1457).* After the second quarter

³ Cf. Phot. O.D., No. 6376.

of the fifteenth century we again have, after a complete silence of just five centuries,⁴ some inscriptions from Central Java, especially those of Caṇḍi Sukuh on the western slope of the Gunung Lawu at a height of 2,750 feet, dated 1439 and 1457,⁵ as well as one from Ngadoman, kaw. Salatiga, kab. and kar. Sēmarang, on a slope of the Gunung Mērbabu, dated 1449.⁶

The Sukuh inscriptions are written in thick letters protruding in relief. The shape of the letters appears more reminiscent of those of the Kawali inscription than of Majapahit script but this impression may be misleading. In fact, the only *striking* point of agreement is the shape of the *ya*, expressed as two double strokes, each connected at the base although the two pairs are themselves detached. On the other hand, the Sukuh inscriptions have some curious features no traces of which can be found in Pajajaran script. The *ga* has four verticals (cf. *goh* in line 5 of the Sukuh inscription of 1457) and so has the numeral 1 (the last symbol of line 7 in the same inscription); apparently the dent in the top bar, conspicuous in many copper-plate inscriptions of the latter half of the thirteenth century, has grown into a downward bulge which was subsequently extended to the bottom. The *na* consists of a large round dot (in this monumental script expressed as a knob-like round bulge), 'roofed' as it were by a slanting rising and a slanting but roundish descending vertical joined at the top. A similar large round dot joined with a serifed vertical on the right is used to express *ta*. These particular shapes of *na* and *ta* are, it seems, *cul-de-sacs*: they cannot be regarded as stages leading towards the modern Javanese shapes of these letters. The Sukuh *ga*, on the other hand is not so far removed from the modern *ga*, which has also four verticals, and could very well be explained as an intermediate form between the Majapahit and the later Mataram form of the letter.

The script of the Ngadoman inscription appears to represent another kind of *cul-de-sac*. Here again there are some *akṣaras* that seem to foreshadow modern Javanese script, notably the *sa*, but in other respects it could be described as Majapahit script reduced to its essentials. Thus, the *la* consists of a slanting upward stroke, a slanting downward stroke and

⁴ The only possible exception known to me is an undated fragmentary inscription from the Dieng (Mus. Djak. no. D 30), which is written in a script similar to that of inscriptions of Airlangga (c. 1019-1042).

⁵ Rapp. Oudh. Comm. Ned.-Indië, 1902, plate 7; W. F. Stutterheim, *Gids voor de Oudheden van Soekhoë en Tjéta*, 1930, fig. 4.

⁶ Mus. voor Volkenkunde, Leiden, No. 1620, cf. H. H. Juynboll, Catalogus Mus. Leiden, 1909, p. 229. Photograph Kern Inst. No. 10019. Transcription by A. B. Cohen Stuart, *Kawi Oorkonden*, 1875, p. 36, no. XXVII (with facsimile) and *Bijdr. Kon. Inst.*, 3rd series, VII, 1872, pp. 275-284.

another slanting upward stroke, with in both cases angular connexions. The final result is not unlike a printed Roman capital *N*.⁷ A number of descending verticals have, just below the top, a sharp dent to the right before descending in the normal way. This may well be an evolution from the type of verticals in Majapahit script of the style discussed under 2b. Finally, the -*i* is angular and has its right side open.

It is perhaps no coincidence that these two special varieties of script in Central Java are both found in mountain areas away from the main centres of population. The site of Sukuh has indeed been regarded as one where those unaffected by the victorious march of Islam would have sought refuge and developed in isolation from the mainstream of Javanese civilization. The special varieties of script can be seen as aspects of a peculiar culture flourishing during part of the fifteenth century.

The Sukuh and Ngadoman inscriptions are, however, of little help in any attempts at reconstructing the history of script in Central Java during the long dark period lasting till after the end of the sixteenth century. Similar gaps in our knowledge, in most cases as wide as or wider than those in Java, occur in other parts of the Indonesian archipelago. In different parts of Sumatra, notably in the Batak-speaking areas around Lake Toba, in Bēngkahulu ('Bencoolen'), Kērinci and Lampung, there is evidence for different but closely related types of script which still are, or have been till recent times, in use among parts of the population. Although these scripts are evidently related to the earlier scripts of the archipelago, such as Kawi script, it is difficult to trace their exact origin. On general grounds it would seem probable that these scripts go back to the Malayu script of the time of Ādityavarman—a script does not easily disappear, as we have seen earlier—but there is little evidence to substantiate this view. As there is a hiatus of about five centuries between Ādityavarman and the above-mentioned types of script it is hardly surprising that there is no clear evidence for a particular relationship. As for the Macassarese and Buginese scripts in South Sulawesi (Celebes) and the Bimanese scripts of eastern Sumbawa it seems likely that both are derived from the Sumatranese scripts, although much more research is needed to establish the precise relationships.⁸ As Bima has been a dependency of Macassar⁹ it would seem likely that Bimanese

⁷ A similar form of *la* is found in the (relatively) modern inscriptions on bark cloth, bamboo, rattan etc. in central and southern Sumatra, especially Réjang, Kērinci, Lēmbak (Bēngkahulu) and Pasēmah. Cf. the excellent table 2 in M. A. Jaspan, *Redjang Ka-nга-nга Texts. Folk literature of South Sumatra*, A.N.U., 1964. The similarity seems accidental.

⁸ H. Kern, 'Over de Sanskrit-opschriften van Muara Kaman, in Kutei (Borneo)', *Verspr. Geschr.*, VII (original article of 1882), pp. 57-76 (particularly pp. 70 ff.).

⁹ It was still recognized as a Macassarese dependency in the treaty of Bongaya (1668); cf. F. W.

script is also an offshoot of Macassarese. Bimanese script has, however, long been extinct so that we have to rely on the alphabets copied by Raffles and Friedrich.¹⁰ The latter looks quite phantastic but the alphabet reproduced by Raffles shows some similarities with Macassarese and Buginese scripts.¹¹ Some more work has recently been done on scripts in the Philippines, notably by Father Juan Francisco¹² and Father Antoon Postma.¹³ It has been suggested that the Philippine alphabets, too, are offshoots from Macassarese-Buginese scripts but, although there is not the slightest doubt that they, too, belong to the Indonesian 'family' of scripts, their precise attachments are uncertain.¹⁴

This uncertainty can be attributed to the serious gap in our sources between the middle of the fifteenth century and the end of the sixteenth century when, at least in Java, we again receive information on the history of script, especially from manuscripts. The gap in our knowledge of the script co-incides with a generally dark period in the history especially of Java: the transition between the great empires of the past disintegrating and crumbling at the end of the fifteenth and the beginning of the

Stapel, *Het Bongaaisch Verdrag*, 1922. It is, however, necessary to emphasize that political influence does not necessarily entail influence of script. In addition, as we saw in chapter IV, section 7, the inscription of Palama shows that script was known in Sumbawa in about the middle of the fourteenth century. The possibility that Bimanese script is, in fact, an offshoot of this Majapahit script cannot be excluded at the present state of knowledge.

¹⁰ They are reproduced by K. F. Holle, *Tabel van Oud- en Nieuw-Indische Alphabetten*, 1882, p. 11, Columns 138-140; p. 20, Columns 138-140.

¹¹ There is some agreement for *ca*, *na*, *ba*, *ma*, *wa* and a few others. It is strange that the most striking agreement is that between modern Macassarese script and the apparently older form of Bimanese in Friedrich's tables. The form of the *na* both in Macassarese-Buginese and in Bimanese script—a dot 'roofed' by a pointed or roundish arch, rather like a *point-d'orgue* in musical notation—strongly reminds one of the *na* in the Sukuh inscriptions, but this is probably merely a co-incidence. Some of the Bimanese forms are quite puzzling, for instance the *ya* which bears no apparent relationship to any of the known scripts.

¹² Juan Francisco, *Philippine Palaeography*, Manila, 1973. I should like to acknowledge my gratitude to Father Francisco for sending me a copy of his work.

¹³ Antoon Postma, S.V.D., 'Contemporary Mangyan Scripts', *The Philippine Journal of Linguistics*, 1972, pp. 1-12 (with a comparative table of Philippine scripts). Cf. also by the same author 'Contemporary Philippine Syllabaries in Mindoro', *San Carlos Publications*, Series E, no. 1, 1968, pp. 71-77, and *Treasure of a Minority: the Ambahan, a Poetic Expression of the Mangyans of Southern Mindoro*, 1970, with many illustrations. I am thanking also Father Postma for sending me copies of these important publications as well as photographic materials.

¹⁴ Father Postma, 'Contemporary Mangyan Scripts', note 21 to p. 10, rightly expresses doubt about any close connexion between Philippine scripts and Macassar-Bugis scripts. It is true that the similarities, though present, are by no means very striking. On the other hand, despite Fr. Postma's view to the contrary, the argument that final consonants are not expressed in Mangyan script because the letters were borrowed from Macassarese where no words end in a consonant (other than final *ng*) retains some force: other Indonesian scripts, such as those of Java and Sumatra, always indicate vowel-less consonants, either by the use of the *virāma* (*patēn*) or by combining the final consonant of one word with the initial consonant or vowel into one ligature. As the non-expression of the final consonants sometimes causes ambiguity (cf. Fr. Postma's nice example on p. 4) it would be surprising that the Mangyans should not have followed the general Indonesian method—unless they followed a script adapted to a language without final consonants.

sixteenth century, and the emergence of new, Muslim, states during the course of the sixteenth century.

There is possibly an additional cause of the gap in our sources written in Indonesian scripts, viz. the use of Arabic script accompanying the expansion of Islam. In the period covered in this work Arabic script was still a 'foreign' script in so far as it was used almost exclusively for writing a non-Indonesian language (Arabic), although we find still within our period the first example of the use of Arabic script for writing Malay.¹⁵ A full discussion of Arabic script in Indonesia, involving comparisons with other parts of the Muslim world, falls outside the scope of this study. It is intended to present here only a brief survey of the available materials, as any more detailed account would have to take also post-1500 developments into consideration. The main significance of Arabic script in this context is its very existence in Indonesia and the Malay Peninsula in the later part of this period. The same applies to Tamil script which is never used for writing an Indonesian language as far as is known. In the last part of this work it is therefore proper to give also some attention to Tamil script.

3. Tamil script. Tamil script will be dealt with first as it is found in relatively early inscriptions. Their number is, however, quite small, viz. four or five inscriptions in all.

The oldest Tamil inscription, which has received more attention from scholars than any of the others, is the inscription of Takuapa in southern Thailand.¹⁶ It is incised in a stone slab and was found together with a few images. The name Avani Nāraṇam given to a tank in Takuapa recalls one of the titles of the Pallava king Nandivarman III and thus dates the inscription back to the middle of the ninth century.¹⁷ As the inscription also mentions the *Maṇikkirāmam*, one of the most important Tamil mercantile guilds, there can be little doubt that the inscription belongs to a Tamil settlement at Takuapa in the ninth century. It should therefore be discussed in the context of South Asian, rather than of South East Asian palaeography.

¹⁵ The exception is the Trēngganu inscription, which will be discussed in section 4.

¹⁶ E. Hultzsch, *J.R.A.S.*, 1913, p. 337; *J.R.A.S.*, 1914, p. 397; G. Coëdès, *Recueil des inscriptions du Siam*, II, 2nd edn., 1961, pp. 49 ff.; H. G. Quaritch Wales, *Towards Angkor*, 1937, pp. 38 ff. and pp. 55 ff.; K. A. Nilakanta Sastri, 'Takuapa and its Tamil Inscription', *Journ. Mal. Br. R.A.S.*, XXII, pt. I, 1949, pp. 28 f.; A. Lamb, 'Miscellaneous Papers on Early Hindu and Buddhist Settlement in northern Malaya and southern Thailand', *Fed. Mus. Journ.* VI, N.S., 1961, pp. 1-90, in particular pp. 64-68 and plate 100.

¹⁷ R. Gopalan, *History of the Pallavas of Kāñchi*, 1928, p. 138; K. A. Nilakanta Sastri, *History of South India*, 1955, pp. 153 f. dates Nandivarman III from 844 to 866 A.D.

More than two centuries later we find another Tamil inscription, this time from Lobok Tua near Barus, Tapanuli, Sumatéra Utara (North Sumatra). It is dated 1088 and deals with the activities of another mercantile corporation, the 'Five Hundred of the thousand (districts) in the (Four) quarters'.¹⁸ It therefore emanates, as the Takuapa inscription, from a local Tamil settlement and, although its presence on Indonesian soil is of great historical interest, it is of no direct importance for the history of Indonesian script.

Another Tamil inscription, unfortunately in a poor state of preservation, has been found at Vat Mahath'at, Ligor (Nakhon Śrī Thammarāt),¹⁹ in southern Thailand. It has been dated back to the tenth or eleventh century A.D. on palaeographical grounds, i.e. on the basis of a comparison of its script with that of the Cōla inscriptions in southern India.

The persistence of Tamil influence (and, probably, settlements) in parts of Sumatra till the thirteenth and fourteenth century appears from the few lines of Tamil script added to an inscription in Old Sumatranese script on the back of a Gaṇeśa statue at Porlak (or Pordak) Dolok on the bank of the Barumon river in Tapanuli, Sumatera Utara.²⁰ The inscription, which is badly withered, has not yet been read. The same applies to an inscription at Bandar Bapahat in Minangkabau, Sumatera Tēngah²¹ (Central Sumatra). In this case the inscription in Tamil script is found to the right of a Sanskrit inscription in Malayu script of king Ādityavarman (c. 1343-1375). Only a few words have been deciphered. From these it has been inferred that the text in Tamil script may be identical with the Sanskrit inscription in Malayu script.²² If this suggestion is confirmed by further research the Bandar Bapahat inscription would be the only known example in Indonesia of an identical text written in two different kinds of script. Krom rightly concluded from this inscription that there were apparently a group of people in Central Sumatra in the middle of the fourteenth century who were unable to read Malayu script but could read Tamil script.²³ This interpretation would confirm the conclusion arrived at earlier according to which the Tamil inscriptions in maritime

¹⁸ K. A. Nilakanta Sastri, 'A Tamil merchant guild in Sumatra', *Tijdschr. Bat. Gen.*, LXXII, 1932, pp. 314 ff.; K. A. Nilakanta Sastri, *The Coṭas*, 2nd edn., 1955, pp. 318 f.

¹⁹ G. Coedès, *Recueil des inscriptions du Siam*, II, 2nd edn., 1961, p. 57.

²⁰ F. M. Schnitger, *The Archaeology of Hindoo Sumatra*, 1937, p. 17.

²¹ N. J. Krom, *Hindoe-Javaansche Geschiedenis*, 2nd edn., 1931, p. 414; cf. also *Oudh. Versl.*, 1912, p. 46.

²² This view was brought forward by Krishna Sastri; see Krom, *loc. cit.*

²³ Cf. Krom, *op. cit.*, p. 304 and pp. 414 f.—Two other examples of digraphic inscriptions have been mentioned earlier, viz. the inscription of Sanur, Bali (Appendix to chapter II) and that of Ci Catih, Jawa Barat (chapter III, section 5), but in neither case do we have identical inscriptions in different scripts.

South East Asia have to be attributed to the presence of Tamil settlements in the areas where the inscriptions were found.

Finally, it should be emphasized that all the known Tamil inscriptions in maritime South East Asia come from the north-western section of the region.

4. *Arabic script.* During the period under consideration Arabic script was, like Tamil script, 'foreign' in so far as it was almost exclusively used for writing Arabic, but there is one exception, the Tréngganu stone inscription, dated probably in 1326 or 1386, which is in Old Malay. It should also be emphasized that, unlike Tamil script, Arabic script with the diacritics for such consonants as *p* (ڦ as in Persian) becomes one of the most common scripts for Malay and other Indonesian languages after the beginning of the sixteenth century.

The Arabic inscription of Leran on the northern coast of East Java, probably dated 1082, is one of the oldest known texts in Arabic script in South East Asia.²⁴ It is the tomb stone of 'the daughter of Maimūn' and it is quite possible that the stone with inscription was imported. In any case, the inscription is only an isolated testimony to the use of Arabic script in Indonesia as there is a gap of more than two centuries before we find the next example of the use of Arabic script, viz. the tomb stone (*maésan*) of Sulṭān Maliku 's-Sāliḥ of Pasai on the north-east coast of northern Sumatra, dated A.D. 1297.²⁵

This tomb stone is followed by a number of others near the site of ancient Pasai near present Lho' Seumawe, Sumatera Utara. All except one are in ornamental Arabic script of Persian type and were probably imported from Gujarat, India, and do not therefore concern us here. The exception is the interesting inscription of Minye Tujuh discussed in chapter IV, section 6.

In the Malay Peninsula the oldest inscription in Arabic script is the stone inscription of Tréngganu about 30 km from the east coast of the Peninsula.²⁶ It is also the first example of the use of Arabic script for writing Malay. From the fact that most of the conventions which would remain characteristic of the writing of Malay (and some other Indonesian

²⁴ J. P. Moquette, 'De oudste Mohammedaansche inscriptie op Java, n.m. de grafsteen te Leran', *Hand. Eerste Congres T.L. Volkenkunde van Java*, pp. 391-399 (with illustration); P. Ravaisse, 'L'inscription couquife de Léran à Java', *Tijdschr. Bat. Gen.*, LXV, 1925, pp. 668-703.—The oldest Muslim inscription in South East Asia is one in Campa dated 1039.

²⁵ B. J. O. Schrieke, *Het boek van Bonang*, 1916, pp. 28 ff.

²⁶ H. S. Paterson, 'An early Malay Inscription from 14th-century Tréngganu', *Journ. Mal. Br. R.A.S.*, II, 1924, pp. 252-258 (with illustrations), followed by a discussion of the date of the inscription by C. O. Blagden, *ibid.*, pp. 258-263. Cf. also R. O. Winstedt, *A History of Malaya*, revised ed., 1962, p. 40.

languages) in Arabic script—such as the use of !, ፻ and ፼ for expressing the (short) vowels of syllables bearing the word accent—had already taken shape by that time may suggest that Arabic script had already been in use for some time before the (somewhat uncertain) date of the inscription.²⁷ Compared with the script of most of the Pasai tomb-stones that of Trĕngganu is plain, clear and functional. This type of writing is perhaps due to the fact that the Trĕngganu stone inscription, containing laws and regulations meant to be read, had to be written in script understandable to at least the élite, whereas the inscribed *maésans* of Pasai with Qur'anic and other Muslim texts were mainly ornamental.

A few other Arabic tomb-stones in the Malay Peninsula are dated in the fifteenth century, notably that of Sultān Mansūr Shāh of Malacca (1458-1477).²⁸

In Java the most important group of Arabic inscriptions before the end of the fifteenth century are the *maésans* of Troloyo, discussed earlier on account of the Old Javanese numerals.²⁹ The peculiarities of the script have been fully discussed by Damais and there is no need to repeat his observations here.³⁰ The script of Troloyo corresponds fully to that of contemporary inscriptions in Arabic script in other parts of the Muslim world.

The best known Arabic inscription in Java of this period is that on the tomb of Malik Ibrāhīm at Grĕsik, north-east of Surabaya.³¹ The inscription, dated A.D. 1419, is beautifully written in ornamental Arabic script similar to that of the contemporary inscriptions of Pasai and of Gujarat in India.³²

The main developments of Arabic script in maritime South East Asia, notably in Malay, Javanese and other Indonesian manuscripts take place after 1500 and therefore fall outside the scope of this study.

²⁷ Of the year only *tujuh ratus dua*, i.e. 702 (A.H.), can be read before a lacuna where part of the stone is broken off. *Dua* could be the end of the date but could also be followed by either *puluhan* and possibly another numeral (i.e. any number from 20 to 29) or by *-apan* (*dualapan* = eight). The latter could again be the end of the date but could also be followed by any numeral indicating the unit. This yields the possibilities 702, 720 to 729, or 780 to 789 A.H. As the inscription also mentions that this was a Year of the Crab, there remain only two of the twenty-one possibilities, viz. those corresponding to A.D. 1326 or 1386.

²⁸ J. P. Moquette, 'The Grave-Stone of Sultan Mansur Shah of Malacca (1458-77)', *Journ. Str. Br. R.A.S.*, LXXXV, 1922, pp. 1-4.

²⁹ Chapter IV, section 2.

³⁰ L.-C. Damais, 'Études Javanaises.' I. Les Tombes Musulmanes datées de Trâlâyâ, *B.E.F.E.O.*, XLVIII, fasc. 2, 1957, pp. 353-415.

³¹ Ph. S. van Ronkel (?), *Tijdschr. Bat. Gen.* LII, 1910, pp. 596-600; J. P. Moquette, *Tijdschr. Bat. Gen.*, LIV, 1912, pp. 208-214 (with two plates).

³² J. P. Moquette, 'De Graftenen te Pasé en Grisee vergeleken met dergelijke monumenten uit Hindoestan', *Tijdschr. Bat. Gen.*, LIV, 1912, pp. 536-548 (with four plates).

CONCLUSION

Apart from many points of detail, which do not need to be recapitulated here, there are two important conclusions that emerge from this study of Indonesian scripts during more than a thousand years (c. A.D. 400-1500).

The first one is negative. Contrary to what might have been expected there does not appear to have been any close or direct relationship between political history and the history of writing. The great kingdoms and empires of the past, such as Śrivijaya and Majapahit, do not seem to have promoted any kind of uniformity of writing within the realms under their control. This is most clearly evident in the Majapahit period when we witness, on the contrary, the development in e.g. Sunda and Malayu (Central Sumatra) of special scripts which cannot be traced back to the script of the centre of the empire, viz. eastern Java, but descended from local scripts of these areas. The effect of control by Majapahit therefore appears to have been that of stimulating 'local genius'.¹ Once established in such areas these local scripts became so firmly rooted in society that they were unaffected by changes in political control or overlordship.

The second conclusion, not quite unconnected with the first, is positive. This study has demonstrated that behind the 'visible' history of script, as revealed by a considerable number of stone and copper-plate inscriptions, there is a latent history of writing on more perishable materials such as palm leaf and bamboo. Such writing was undoubtedly used for many different purposes. As all such writings are, however, irretrievably lost, their existence through the centuries has to be inferred from an analysis of the styles of writing found in the stone and copper-plate inscriptions. In many cases the changes in the script of the inscriptions become meaningful only if one assumes that they reflect similar changes in everyday writing. Although it is not possible to reconstruct the history of ordinary script its very existence, at least from about the ninth century A.D., not only in Central and Eastern Java but probably in some other parts of maritime South East Asia as well, is an important result of the study of ancient Indonesian palaeography.

This second conclusion raises new issues. It is usually assumed that

¹ I use this term in the meaning given to it by H. G. Quaritch Wales. Cf. *The Making of Greater India*, 2nd edn., 1961, chapter I (pp. 1-31) and *passim*. Cf. also F. D. K. Bosch, 'Local Genius en Oud-Javaanse Kunst', *Med. Kon. Ak. Wet., Afd. Lett.*, N.R., 1952, pp. 1-25. Cf. also note ¹⁰ to p. 14.

knowledge of script was limited to a very small élite comprising mainly the class of professional clerks in early South and South East Asia. There is reason to doubt the correctness of this view which is based not on any real evidence but on an inference from the very low rate of literacy in this part of the world at the beginning of this century. If it was very low at that time, it would no doubt have been even much lower in ancient times, it could be argued. Such a view is based on the underlying assumption of continuous progress in history. It is therefore surprising to notice that in Ceylon in the period from about the eighth to the tenth century A.D. there were hundreds of Sinhalese who visited the beautiful frescoes in the Sigiri caves in Ceylon and expressed their admiration for the heavenly damsels in graffiti inscribed in the Mirror Wall.² As most of the graffiti-writers also disclose their identity we get some impression of who they were. The interesting fact that emerges is that the great majority were not princes or monks but, it seems, ordinary people who not only could write but even could express their ideas in excellent, often poetic, verse. It would, of course, be wrong to generalize on the basis of the Sigiri graffiti but, on the other hand, the kind of society we can infer from the Old Javanese inscriptions does not seem to have been fundamentally different from that which has been reconstructed for ancient Ceylon.

This is probably more than a mere guess. The enthusiastic research by Father Antoon Postma³ has revealed the importance of writing in a tribal society, that of the Mangyans of southern Mindoro in the Philippines. In this society it is estimated that about 80% of the population use script, mostly engraved on bamboo containers. It is used as a means of communication but also for preserving and memorizing folk literature, especially the so-called *ambahan* poems, of which Father Postma has published a beautiful collection. Again it can be argued that the importance of writing in a modern tribal society of the Philippines proves nothing for ancient Indonesia, yet it shows at least that there is certainly no strong objection against the view that script in parts of ancient maritime South East Asia was by no means limited to clerks and monks. Above all, these examples should be a warning against the assumption of almost complete illiteracy in these areas. Our second conclusion, implying a continuous history of writing which is not revealed by the sources, may lend some support to the view that writing was in much more general use in ancient maritime South East Asia than is generally thought.

² S. Paranavitanā, *Sigiri Graffiti, being Sinhalese verses of the eighth, ninth and tenth centuries*, 2 vols., 1956.

³ Antoon Postma, S.V.D., 'Contemporary Mangyan Scripts', *The Philippine Journal of Linguistics*, 1972, pp. 1-12, especially p. 3.

APPENDIX

MATERIALS FOR THE STUDY OF INDONESIAN PALAEOGRAPHY

As it is not possible to illustrate all the different types and variants of ancient Indonesian script discussed in the text it may be useful to provide some data on the availability of photographs and estampages of inscriptions, as well as a selection of photographs and other reproductions of ancient Indonesian script available in published works.

The most important collection of photographs of Indonesian inscriptions is contained in the photographic archives of the *Lembaga Purbakala dan Peninggalan Nasional* of the Republic of Indonesia at Jakarta.¹ These archives possess hundreds of photographs of inscriptions, all of first-rate quality. Copies of almost all of these photographs can also be consulted in the Kern Institute at Leiden, Netherlands.

Despite the richness of this collection there is a certain imbalance in the distribution of the photographs over the centuries and the areas. This imbalance is due to the manner in which the collection has grown, and it reflects the particular interests of the scholars under whose responsibility the photographs were taken. Thus, the earliest types of script before about the middle of the eighth century A.D. are excellently documented with nearly complete sets of all the known inscriptions. The last part of the period dealt with in this work, from the middle of the thirteenth to the end of the fifteenth century, is again quite well represented. All through the period it is striking that the inscriptions of western Java, Sumatra and especially Bali are much more fully illustrated than those of central and eastern Java. Also the Nāgari-type scripts are very well illustrated. On the other hand, relatively few photographs are available for the numerous inscriptions of central and eastern Java between the middle of the eighth and the middle of the thirteenth century—in fact, only very few for the eastern Javanese inscriptions of the reigns of Siñdok, Airlangga and the kings of the Kaḍiri period. It is quite understandable that scholars were generally more interested in the special varieties than in the ordinary types of writing. The main reason for this gap is, however, the fact almost

¹ From 1901 to 1913: *Commissie in Nederlands-Indië voor Oudheidkundig Onderzoek op Java en Madoera*; from 1913-1942: *Oudheidkundige Dienst in Nederlandsch-Indië*; 1945-1950: *Oudheidkundige Dienst in Indonesië*; 1950-1969: *Dinas Purbakala Republik Indonesia*; from 1969: *Lembaga Purbakala dan Peninggalan Nasional*.

all East Javanese inscriptions of the tenth, eleventh, and twelfth centuries are on very large stones and are therefore difficult and costly to reproduce. This is also the reason why there are many more good reproductions of copper-plate inscriptions than of stones.

On the other hand, the archives of the *Lembaga Purbakala* at Jakarta possess estampages of almost all known stone inscriptions. Most of these are uninked and are of excellent quality. In general, estampages are more reliable than photographs because they do not suffer from possible distortions due to the lighting or the presence of shadows on photographs. A considerably smaller, but quite representative, collection of estampages can be consulted in the Kern Institute at Leiden.

In addition to these primary research materials (not counting the original inscriptions) there is a considerable amount of material available in published form. Though less reliable, published photographs have the great advantage of being readily accessible in libraries. An additional advantage, in many cases, is the presence of transcriptions and, sometimes, of palaeographic discussion. I am therefore adding a selection of titles of books and periodicals which include reproductions of good quality and/or valuable palaeographic discussions. The list is divided into two parts, the first consisting of a number of works each containing important collections of illustrations, the second comprising articles in periodicals with good illustrations, arranged, as far as possible, in the order of the chapters of the text.

I

COLLECTIONS OF REPRODUCTIONS

- J. L. A. Brandes, *Oud-Javaansche Oorkonden*. Edited by N. J. Krom (*Verh. Bat. Gen.*, LX, 2), 1918. The 14 plates of inscriptions from A.D. 760 to 1486 are limited to central and eastern Java, but otherwise present most characteristic types of writing in chronological order. The plates of stone inscriptions are based on inked estampages.
- B. Ch. Chhabra, *Expansion of Indo-Aryan Culture during Pallava Rule*, 2nd ed., 1965. Twenty excellent illustrations of inscriptions in 'Pallava' script.
- W. F. Stutterheim, *Cultuurgeschiedenis van Java in Beeld*, 1926. A number of excellent illustrations of Old Javanese inscriptions and one (fig. 131 on p. 96) from Bali, but in Old Javanese script and language.
- Th. Pigeaud, *Literature of Java*, vol. III, 1970, pp. 20 ff. Beautiful reproductions of Javanese writing, but only few specimens relate to the period under discussion.
- J. L. A. Brandes, *Tjandi Djago. Archaeologisch Onderzoek op Java en Madoera*, I, 1904. Excellent photographs of the inscriptions and numerous inscribed images of this temple in eastern Java.
- W. F. Stutterheim, *Oudheden van Bali*, II, 1930, plates 94-115. Excellent photographs of the most important stone inscriptions of Bali.
- P. V. van Stein Callenfels, *Epigraphia Balica. Verh. Bat. Gen.* LXVI, part 3, 1926, plates I-XXVIII. Fine collection of photographs of Balinese copper-plate inscriptions.
- R. Goris, *Prasasti Bali*, II, 1954, plates I-X. Photographs of stone and copper-plate inscriptions of Bali from A.D. 901 to 1049.

- L.-C. Damais, 'Études Javanaises'. I. Les tombes musulmanes datées de Trâlâyâ', *B.E.F.E.O.*, XLVIII, fasc. 2, 1957, plates XV-XXXIV. Photographs of all the preserved Arabic inscriptions and Old Javanese numerals of the cemetery of Troloyo, East Java.
- S. Durai Raja Singam, *India and Malaya through the Ages (A Pictorial Survey)*, 3rd ed., 1954. Good reproductions of most inscriptions of the Malay Peninsula, including the fragments of the Singapore stone.
- C. M. Pleyte, 'De Patapaän Adjär Soeka Resi', *Tijdschr. Bat. Gen.*, LV, 1913, pp. 280-428, VI plates, 1 facsimile and 1 table of Old Sundanese letter forms.

II

SELECTION OF PUBLISHED PHOTOGRAPHS OF INSCRIPTIONS (classified according to chapters)

I

- Oc-éo Inscriptions*: G. Coëdès, 'Fouilles en Cochinchine. Le site de Go Oc-éo.', *Art. Asiae*, X, 1947, 3, pp. 190-199, plates C and D.; L. Malleret, 'L'Archéologie du Delta du Mékong. vol. III. La Culture du Founan', *Publ. E.F.E.O.*, XLIII, 1962, pp. 175-304, plates XXVIII-XXXIX and LXI-LXIV.
- Vo-canห Inscription*: J. Filliozat, 'L'Inscription dite de "Vo-canห"', *B.E.F.E.O.*, LV, 1969, pp. 107-116, plates VII-IX.
- Kutai Inscriptions*: J. Ph. Vogel, 'The yūpa inscriptions of king Mūlavarman from Koetei (East Borneo)', *Bijdr. Kon. Inst.*, LXXIV, 1918, pp. 167-232, Plates I-III; B. Ch. Chhabra, *Expansion of Indo-Aryan Culture*, plates VIII-XIII.
- Tārumā Inscriptions*: J. Ph. Vogel, 'The Earliest Sanskrit Inscriptions of Java', *Publ. Oudh. Dienst*, I, 1925, plates 27-34; Chhabra, *op. cit.*, plates 14-18.
- Kēdah Inscriptions*: H. G. Quaritch Wales, 'Archaeological Researches', *J.M.B.R.A.S.*, XVIII, 1940, pt. 1, pp. 1-85, plate 8; Chhabra, *op. cit.*, plates 3-5.
- Early Śrīwijaya Inscriptions of South Sumatra and Bangka*: G. Coëdès, 'Les Inscriptions malaises de Çrivijaya', *B.E.F.E.O.*, XXX, 1930, pp. 29-80, plates I-VI.
- Canggal Inscription*: Chhabra, *op. cit.*, plate VI.

II

- Dinoyo Inscription*: J. L. A. Brandes, *Oudj. Oorkonden*, Plate I; F. D. K. Bosch, 'Het Lingga-heiligdom van Dinaja', *Tijdschr. Bat. Gen.*, LVII, 1916, pp. 410-444, 1 plate; *ibid.*, LXIV, 1924, pp. 227-286, 1 plate.
- Ligor Inscription*: G. Coëdès, 'Le Royaume de Çrivijaya', *B.E.F.E.O.*, XVIII, 1918, pp. 1-36, plates I and IIa; Chhabra, *op. cit.*, plates 4 and 5, fig. 2.
- Rambi Puji Inscription*: W. F. Stutterheim, 'De oudste inscriptie van Oost-Java?', *Bijdr. Kon. Inst.*, 95, 1937-406, figs. 1 and 2.
- Barabudur Inscriptions*: N. J. Krom, *Beschrijving van Barabudur. I. Archaeologische Beschrijving*, 1920 (English translation: *Archaeological Description of Barabudur*, 1927), pp. 50-52, plates I and II.
- Plaosan Lor Inscriptions*: J. G. de Casparis, 'Short inscriptions from Tjanđi Plaosan-Lor', *Berita Dinas Purbakala*, No. 4, 1958, plates II-IX; *Oudh. Versl.* 1940, pl. 15.
- Candi Perot Inscriptions*: J. L. A. Brandes, *Oudj. Oorkonden*, plate 2.
- Wayuku (Dieng) Stone Inscription* (854): J. L. A. Brandes, *Oudj. Oorkonden*, plate 3 (transcription by A. B. Cohen Stuart, *Kawi Oorkonden*, No. XXV).
- Inscribed Linga of Krapjak*, No. I (869?): W. F. Stutterheim, 'Beschreven lingga van Krapjak', *Tijdschr. Bat. Gen.*, LXXIV, 1934, pp. 85-93; No. II (869): M. Boechari, 'An Inscribed Linga from Rambianak', *B.E.F.E.O.*, XLIX, fasc. 2, 1959, pp. 405-408, plates XXV and XXVI.
- Old Javanese Copper-Plate Inscription*, *Leiden Or. 4998* (878): Th. Pigeaud, *Literature of Java*, III, 1970, p. 20, p. 54 and plate 31.
- Ngabéan Copper-Plate Inscription* of Kayuwani (879): J. L. A. Brandes, *Oudj. Oorkonden*, plate 4 (transcription No. CVI).
- Undated Ngabéan Copper-Plate Inscription*: J. L. A. Brandes, *Oudj. Oorkonden*, Plate 5 (transcription No. CVI).

- Randusari Copper-Plate Inscription* No. II (885): W. F. Stutterheim, 'Oorkonde van Dang Ācārya Munindra uit 885 A.D.', *Inscr. Ned.-Indië*, I, 1940, pp. 29-32, plate 2.
- Kaduluran Copper-Plate Inscription* (885): M. Soekarto Kartoatmodjo, *Ber. Lemb. Purb. dan Pen. Nasional*, No. 8, 1969, pp. 13 f. (figs. 3 & 4).
- Copper-Plate Inscription of Mao*, Klaten (9th cent.?): M. Soekarto Kartoatmodjo, *Ber. Lemb. Purb. dan Pen. Nasional*, No. 8, 1969, p. 16.
- Singosari Stone Inscription* (901): J. L. A. Brandes, *Oudj. Oorkonden*, Plate 6 (No. XIX).
- Wonogiri Copper-Plate Inscriptions of 903*: W. F. Stutterheim, 'Een vrij overzetveer the Wanagiri (M.N.) in A.D. 903', *Tijdschr. Bat. Gen.*, LXXIV, 1934, pp. 269-295.
- Randusari Copper-Plate Inscription* No. I (905): W. F. Stutterheim, *Inscr. Ned.-Indië*, I, 1940, pp. 3-28, Plate 1.
- Gunungkidul Stone Inscription* (906): J. L. A. Brandes, *Oudj. Oorkonden*, plate 7 (No. XXV).
- Copper-Plate Inscription with engraved Mother Goddess ('Madonna')*, undated but probably 8th-9th century: W. F. Stutterheim, *Djávád*, IV, 1924, pp. 247-252; *Cultuurgeschiedenis van Java in Beeld*, 1926, fig. 58 (p. 45); *Studies in Indonesian Archaeology*, 1956, pp. 147-158, fig. 23.
- Sukabumi Stone Inscription* (921/927, but incorporating also an earlier edict of, probably, 804): P. V. van Stein Callenfels, 'De inscriptie van Soekaboemi', *Med. Kon. Ak. Wet., Lett. B*, No. 4, 1934.
- Painted Inscription of Loro Jonggrang (Prambanan)*: *Oudh. Versl.* 1940, p. 29, fig. 11 (undated but probably 10th cent.).

II (Appendix)

- Kalasan Stone Inscription* (778): F. D. K. Bosch, *Tijdschr. Bat. Gen.*, LXVIII, 1928, pp. 57-62, plate II.
- Kelurak Stone Inscription* (782): F. D. K. Bosch, 'De inscriptie van Keloerak', *Tijdschr. Bat. Gen.*, LXVIII, 1928, pp. 1-56, plate I.
- Ratubaka Stone Inscription* (792): F. D. K. Bosch, *Tijdschr. Bat. Gen.*, LXVIII, 1928, bijl. II, pp. 63 f., plate III; J. G. de Casparis, 'New Evidence on Cultural Relations between Java and Ceylon in Ancient Times', *Art. Asiae*, XXIV, 3-4, 1961, pp. 241-248 (plate facing p. 242).
- Plaosan Stone Inscription* (c. 800?): F. D. K. Bosch, *Tijdschr. Bat. Gen.*, LXVIII, 1928, plate IV.
- Clay Mold with Nāgari Inscription* (possibly from Bali): W. F. Stutterheim, *Cultuurgeschiedenis van Java in Beeld*, 1926, fig. 57 (p. 44).
- Brief Nāgari Inscriptions from Central Java*: F. D. K. Bosch, 'Twee belangrijke aanwinsten van het Batavia'sche Museum', *Feestb. Bat. Gen.*, I, 1928; pp. 39-48, plate on p. 45; Albert le Bonheur, *La sculpture indonésienne au Musée Guimet*, 1971, Nr. 3814 (p. 184).
- Sanur Inscription*: W. F. Stutterheim, 'A Newly discovered Pre-Nāgari Inscription on Bali', *Acta Orient.*, XII, 1934, pp. 126-132, 2 plates; R. Goris and P. L. Dronkers, *Bali, Atlas Kebudajaan*, 1950, plate 303 (facing p. 84).

III

- Stone Inscription of Lawajati* (929): J. L. A. Brandes, *Oudj. Oorkonden*, Plate 8 (No. XXXIX).
- Stone Inscription of Puhsarang* (probably A.D. 1012): *Rapp. Oudh. Comm.*, 1908, plate 115.
- Stone Inscriptions of Jalatunda* (977): *Oudh. Versl.* 1921, p. 78, figs. 1 and 2; p. 148, fig. 4.
- Surabaya Inscription of Airlangga* (1021): J. L. A. Brandes, *Oudj. Oorkonden*, plate 9 (No. LVIII).
- Ngantang Stone Inscription of Jayabhaya* (1135): J. L. A. Brandes, *Oudj. Oorkonden*, plate 10 (No. LXVIII).
- Surabaya Stone Inscription* (1203): J. L. A. Brandes, *Oudj. Oorkonden*, plate 11 (No. CXXXII).
- Inscribed Kéntongan of Kadiri*: W. F. Stutterheim, *Cultuurgeschiedenis*, fig. 128 (p. 93).
- Stone Inscription of Pejeng I* (953?): W. F. Stutterheim, *Oudheden van Bali*, II, fig. 103.—Most, if not all, stone inscriptions illustrated in this work, many of which are in fragments, belong to the period under discussion. There is no need to list these here, as all the data can easily be obtained from Stutterheim's text and figures 94-115.
- Manuk Aya Stone Inscription* (960): R. Goris, *Prasasti Bali*, II, 1954, plate III (No. 205).
- Bwahan Copper-Plate Inscription A* (994): Goris, *op. cit.*, plate IV (No. 303).
- Inscribed Stone Image of Gunung Panulisan* (1011): W. F. Stutterheim, *Oudheden van Bali*, II, fig. 109; Goris, *op. cit.*, plate VII (No. 307).
- Bwahan Copper-Plate Inscription B* (1025): Goris, *op. cit.*, plate X (No. 355).
- Pura Abang (Batur) Copper-Plate Inscription* (11th cent.?): Goris, *op. cit.*, plate 6 (No. 305).
- Pura Kéhen (Bangli) Copper-Plate Inscription B* (11th cent.?), Goris, *op. cit.*, plate 9 (No. 356).
- Goble Copper-Plate Inscription* (1115): P. V. van Stein Callenfels, *Epigr. Bal.*, plate I.

- Copper Plate Inscription of Sading A* (1150): Goris, *op. cit.*, plate V (No. 304).
- Copper-Plate Inscription of Batuan* (12th cent.?): Goris, *op. cit.*, plate VIII (No. 352).
- Pura Kēhēn (Bangli) Copper-plate Inscription III* (1204): P. V. van Stein Callenfels, *op. cit.*, plate XXIII.
- Stone Inscriptions of Cicatih near Cibadak, West Java* (1030): C. M. Pleyte, *Tijdschr. Bat. Gen.*, LVII, 1915, pp. 201-218 (Ill.).
- Inscribed Lokanātha of Gunung Tua (North Sumatra)*: F. M. Schnitger, *The Archaeology of Hindoo Sumatra*, 1937, plate XL; *Oudheidkundige Vondsten in Padanglawas*, 1936, plate XI (only part of the inscription is vaguely visible); facsimile in H. Kern, *Verspr. Geschr.*, VII, 1917, pp. 142-144.
- Singapore Stone Inscription*: S. Durai Raja Singam, *India and Malaya through the Ages*, 3rd ed., 1954, pp. 47-49 (photographs of the extant fragments and old facsimile).
- Caiya Stone Inscription* (1230): G. Coedès, 'Le Royaume de Çrivijaya', *B.E.F.E.O.*, XVIII, 1918, No. 6, plate II c.

IV

- Pakis Copper-Plate Inscription of Kērtanagara* (1267): N. J. Krom, *Rapp. Oudh. Comm.*, 1911, pp. 117-123, plate 181.
- Mahākṣobhya Inscription of Kērtanagara* (1289): W. F. Stutterheim, *Cultuurgeschiedenis van Java in Beeld*, 1926, fig. 103 (p. 74).
- Inscribed Cāmuṇḍā of Ardimulyo*: *Oudh. Versl.*, 1928, plates 11-14; M. Boechari, *B.E.F.E.O.*, XLIX, 2, 1959, plate XXVII b; L.-C. Damais, *B.E.F.E.O.*, L, Fasc. 2, 1962, pp. 407-416, plate XXXVI.
- Penanggungan Copper-Plate Inscription of Kērtarājasa* (1296): R. Ng. Poerbatjaraka, 'Oorkonde van Kētarājasa uit 1296 A.D.', *Inscr. Ned.-Indië*, I, 1940, pp. 33-49, plate 3; *Sekitar Penjelidikan Purbakala*, 1951, plate 20 (p. 22).
- Copper-Plate Inscription of Sidotēka* (1323): J. L. A. Brandes, *Oudj. Oorkonden*, plate 12 (No. LXXXIII).
- Singosari Stone Inscription* (1351): J. L. A. Brandes, *Beschrijving van Tjandi Singosari*, 1909, plate 66; W. F. Stutterheim, *Cultuurgeschiedenis*, Fig. 104 (p. 75); *Sekitar Penjelidikan Purbakala*, 1951, plate 21 (p. 23).
- Bendosari Copper-Plate Inscription* (between 1350 and 1365): J. L. A. Brandes, *Oudj. Oorkonden*, plate 13 (No. LXXXV).
- Biluluk Copper-Plate Inscriptions* (1366, 1391 and 1395): P. V. van Stein Callenfels, *Oudh. Versl.*, 1918, pp. 176 f.
- Singosari Copper-Plate Inscription* (middle 14th cent.): J. G. de Casparis, *Inscr. Ned.-Indië*, I, 1940, pp. 50-60, plate 4.
- Rēnēk Copper-Plate Inscription*: W. F. Stutterheim and Th. Pigeaud, 'Een Javaansche oorkonde uit den bloeitijd van Madjapahit', *Djâwâd*, VI, 1926, pp. 195-204; Th. Pigeaud, *Java in the Fourteenth Century*, V, 1963, plate I.
- Kuñjarakarṇa Manuscript*, *Leiden Orient.* 2266: H. Kern, *De Legende van Kuñjarakarṇa*, 1901, facs. of fol. 5 and fol. 8 facing p. 90; Th. Pigeaud, *Literature of Java*, III, 1970, plate 22.
- Batutulis Stone Inscription* (1333): C. M. Pleyte, 'Het Jaartal op den Batoe-toelis', *Tijdschr. Bat. Gen.*, LIII, 1911, pp. 155-220.
- Waruga Guru Manuscript*: C. M. Pleyte, 'De Patapaan Adjar Soeka Rēsi', *Tijdschr. Bat. Gen.*, LV, 1913, pp. 280-428, 5 Ill., 1 facs. and 1 table of ancient Sunda script.
- Ulu Bēlu (South Sumatra) Stone Inscription*: L.-C. Damais, *B.E.F.E.O.*, L, 2, 1962, pp. 289-310, plate XXXV.
- Kubur Raja (Minangkabau) Stone Inscription*: H. Kern, *Verspr. Geschr.*, VII, 1917, pp. 215-226 with reliable facs. facing p. 219.
- Minye Tujuh Stone Inscription* (1380): W. F. Stutterheim, 'A Malay shā'ir in Old Sumatran characters of A.D. 1380', *Acta Orient.*, XIV, 1936, pp. 268-279; C. Hooykaas, *Perintis Sastera*, 1951, pp. 73 f. (plate facing p. 73).
- Pura Abang (Bali) Copper-Plate Inscription*: W. F. Stutterheim, *Cultuurgeschiedenis*, fig. 131 (p. 96).
- Lombok Rock Inscription*: W. F. Stutterheim, 'Een Inscriptie van Lombok', *Djâwâd*, XVIII, 1937, pp. 309 f.
- Jiyu Stone Inscription* (1486): J. L. A. Brandes, *Oudj. Oorkonden*, plate 14 (No. XCII).
- Sukuh Inscription I* (A.D. 1439): W. F. Stutterheim, *Gids voor de Oudheden van Soekoh en Tjetan*, 1930, fig. 4.

Sukuh Inscription II (A.D. 1457), *Rapp. Oudh. Comm.*, 1902, plate VII B.

Takuapa Tamil Stone Inscription (9th cent.): Alastair Lamb, *Fed. Mus. Journ. N.S.*, VI, 1961, fig. 100 (p. XLI).

Arabic Inscription of Leran: J. P. Moquette, 'De oudste Moehammedaansche inscriptie op Java', *Hand. Eerste Congr. T.L.V. van Java*, pp. 391-399 (illustrated); P. Ravaisse, 'L'inscription coufique de Léran à Java', *Tijdschr. Bat. Gen.*, LXV, 1925, pp. 668-703.

Gresik Stone Inscription (*Tomb of Malik 'Ibrahim* of 1429): J.-P. Moquette, 'De grafstenen te Pase en Grisee', *Tijdschr. Bat. Gen.*, LIV, 1912, pp. 536-548.

Dated Troloyo Tombs (1356-1611): L.-C. Damais, 'Et. Jav. I. Les Tombes Musulmanes datées de Trâlâyâ', *B.E.F.E.O.* XLVIII, 2, pp. 353-415, plate XV-XXXIV.

BIBLIOGRAPHY

(including a selection of books and articles containing discussions of some aspects of Indonesian palaeography).

- Atmodjo, M.M. Sukarto, 'Preliminary Report on the Copper-Plate Inscription of Asahduren', *Bijdr. Kon. Inst.*, 126, 1970, pp. 215-227.
—, 'The Charter of Dayankayu', *Bijdr. Kon. Inst.*, 128, 1972, pp. 257-280.
Bhattacharya, Kamaleswar, 'Précisions sur la paléographie de l'inscription dite de Vo-canh', *Art. As.*, XXIV 3/4, MCMLXI, pp. 219-224.
Blagden, C. O., see Paterson, H. S.
Boechari, M., 'An Inscribed Linga from Rambianak', *B.E.F.E.O.*, XLIX, Fasc. 2, 1959, pp. 405-408, pl. XXV and XXVI.
—, 'Śri Mahārāja Mapañji Garasakan', *Madjallah Ilmu-ilmu Sastera Indonesia*, 1967, pp. 1-25.
Bosch, F. D. K., 'De Inscriptie van Dinaja', *Tijdschr. Bat. Gen.* LVII, 1916, pp. 410-444.
—, 'De Kadiloeuw Inscriptie van 956 A.D.', *Not. Bat. Gen.*, 1920, p. 52.
—, 'Het Lingga Heiligdom van Dinaja', *Tijdschr. Bat. Gen.*, LXIV, 1924, pp. 227-286.
—, 'De Oorkonde van Kembang Aroem', *Oudh. Versl.* 1925, pp. 41-49.
—, 'De Inscriptie van Keloerak', *Tijdschr. Bat. Gen.*, LXVIII, 1928, pp. 1-64, Pl. I-IV.
—, 'Twee belangrijke aanwinsten van het Batavia'sche Museum', *Feestb. Bat. Gen.*, I, 1928, pp. 39-48.
Brandes, J. L. A., *Tjandi Djago. Arch. Onderzoek of Java en Madura*, I, 1904.
—, *Oud-Javaansche Oorkonden*. Edited by N. J. Krom (*Verh. Bat. Gen.*, LX, 2), 1918.
Böhler, G., *Indian Palaeography*, 1896.
Casparis, J. G. de, 'Oorkonde uit het Singosarische (midden 14e eeuw A.D.)', *Inscr. Ned.-Indië*, I, 1940, pp. 50-60.
—, 'Nogmaals de inscriptie van Dinojo', *Tijdschr. Bat. Gen.*, LXXXI, 1941, pp. 499-513.
—, *Prasasti Indonesia*. I. Inscripties uit de Çailendra Tijd, 1950.
—, *Prasasti Indonesia*. II. Selected inscriptions from the 7th to the 9th century A.D., 1956.
—, 'Short inscriptions from Tjanđi Plaosan-Lor', *Berita Dinas Purbakala R.I.*, no. 4, 1958.
—, 'New Evidence on Cultural Relations between Java and Ceylon in Ancient Times', *Art. As.*, XXIV 3/4, MCMLXI, pp. 241-248.
Chhabra, B. Ch., *Expansion of Indo-Aryan Culture During Pallava Rule (as evidenced by inscriptions)*, 1965.
Coedès, G., 'Le Royaume de Çrivijaya', *B.E.F.E.O.*, XVIII, 1918, pp. 1-36, pl. I-III.
—, *A History of Thai Writing*, 1924.
—, 'Les Inscriptions malaises de Çrivijaya', *B.E.F.E.O.*, XXX, 1930, pp. 29-80, pl. I-V.
—, 'Fouilles en Cochinchine. Le Site de Go Oc-éo, Ancient Port du Royaume de Fou-nan', *Art. As.*, X, 1947, pp. 193-199; cf. also *B.E.F.E.O.*, XXXI, 1931, pp. 2-8.
—, *Recueil des Inscriptions du Siam*, 2nd edn., 1961.
Cohen Stuart, A. B., *Kawi Oorkonden in Facsimile*, 2 Vols., 1875.
Conklin, Harold C., 'Bamboo Literacy on Mindoro', *Pacific Discovery*, II, no. 4, 1949.
Damais, L.-C., 'Études d'Épigraphie Indonésienne. III. Liste des principales inscriptions datées de l'Indonésie', *B.E.F.E.O.*, XLVI, fasc. 1, 1952, pp. 1-105, 1 table (numeral signs).
—, 'Les écritures d'origine indienne en Indonésie et dans le Sud-Est Asiatique continental', *Bull. Soc. Et. Indoch.*, N.S., XXX, 1955, pp. 365-382, tables A-H (evolution of five *akṣaras*).
—, 'Études Javanaises. I. Les tombes musulmanes datées de Träläyå', *B.E.F.E.O.*, XLVIII, fasc. 2, 1957, pp. 353-415, pl. XV-XXXIV.
Dani, Ahmad Hasan, *Indian Palaeography*, tables I-XXIIIB.
Devahuti, D., *India & Ancient Malaya*, 1965.
Filliozat, J., 'L'Inscription dite de "Vo-canhh"', *B.E.F.E.O.*, LV, 1960, pp. 107-116.
Francisco, Juan R., 'Philippine Palaeography', *Philippine Journal of Linguistics. Special Monograph Issue* 3, 1973.
Friederich, R. H. Th., *Over Inscriptiën van Java en Sumatra voor het eerst ontciijferd*, 1857, 3 fasc.
Gardiner, Fletcher, and Aldefonso Maliwanag, *Indic writings of the Mindoro-Palawan axis*, 1939.
Gaspardone, E., 'La plus ancienne inscription de l'Indochine', *Journ. As.*, 1953, pp. 477 ff.
Goody (ed.), Jack, *Literacy in Traditional Societies*, 1968.

- Goris, R., *Prasasti Bali*, I-II, 1954, pl. I-X.
- , and P. L. Dronkers, *Bali. Atlas Kebudajaan*, Kem. P.P. & K., no date (plates 301, 303, 304, 305, 306, 309 and 311 are all inscriptions with explanatory texts).
- Holle, K. F., *Tabel van Oud-en Nieuw-Indische Alphabetten*, 1882.
- Hooykaas, C., *Perintis Sastera*, 1951 (with excellent reproductions and explanatory texts of Malay inscriptions).
- Jaspan, M. A., *Redjang Ka-ga-nга Texts. Folk Literature of South Sumatra* (with tables and reproductions of Sumatranese texts), 1964.
- Kern, H., *Verspreide Geschriften*, VII. *Inscripties van den Indischen Archipel*, 1917, pp. 1-226 (with many facsimiles).
- , 'De Legende van Kuñjarakarṇa,' *Verh. Kon. Ak. Wet.*, Afd. Lett., N.R., no. 3, 1901 (with facsimiles of fol. 5 and fol. 8).
- , 'Over de bijschriften op het beeldhouwwerk van Boro-boedoer', *Verspr. Geschr.*, VII, 1917, pp. 145 f. (original article of 1896).
- Krom, N. J., 'Een Sumatraansche inscriptie van koning Kr̄tanagara', *Versl. en Med. Kon. Ak. Wet.*, Lett., 5de serie II, 1916, pp. 306-339.
- , *Beschrijving van Barabudur*. I. *Archaeologische beschrijving*, 1920, especially pp. 50-52 (script). English translation: *Archaeological Description of Barabudur*, 1927.
- , *Inleiding to the Hindoe-Javaansche Kunst*, 2nd edn., I-III, 1923.
- , *Hindoe-Javaansche Geschiedenis*, 2nd edn., 1931.
- Lamb, Alastair, 'Miscellaneous Papers on Early Hindu & Buddhist Settlement in northern Malaya and southern Thailand', *Fed. Mus. Journ.*, N.S. VI, 1961, pp. 1-90, 117 plates (plate 100: Takuapa Tamil Inscription).
- Majumdar, R. C., 'La Paléographie des Incriptions du Champa', *B.E.F.E.O.*, XXXII, 1932, pp. 127 ff.
- Maliwanag, Ildefonso, see Gardiner, F.
- Malleret, L., 'L'Archéologie du Delta du Mékong. III. La Culture du Fou-nan', *Publ. E.F.E.O.*, XLIII, 1962.
- , 'Aperçu de la glyptique d'Oc-éo', *B.E.F.E.O.*, XLIV, 1963, pp. 189-199.
- Moquette, J. P., 'De oudste Mochammedaansche inscriptie of Java, n.m. de grafsteen te Léran', *Hand. Eerste Congres T. L. en Volkenkunde van Java*, 1921, pp. 391-399.
- , 'De Grafsteen van Soeltan Malik-al Saleh', *Rapp. Oudh. Dienst* 1913, pp. 1-12.
- , 'De grafsteen te Pasé en Grisseë vergeleken met dergelijke monumenten uit Indoestan', *Tijdschr. Bat. Gen.* LIV, 1912, pp. 536-548.
- Morison, Stanley, *Politics and Script. Aspects of Authority and Freedom in the development of Graeco-Roman script from the sixth century B.C. to the twentieth century A.D.*, 1972.
- Naerssen, F. H. van, 'Een Hindubalineesche oorkonde gevonden in Oost-Java', *Tijdschr. Bat. Gen.*, LXXVII, 1937, pp. 602-610.
- , 'Twee koperen oorkonden van Balitung in het Koloniaal Instituut te Amsterdam', *Bijdr. Kon. Inst.*, XCIV, 1937, pp. 441-461.
- , *Oudjavaansche Oorkonden in Duitsche en Deensche verzamelingen*, 1941.
- Paterson, H. S., 'An early Malay Inscription from 14th Century Tréngganu', *Journ. Mal. Br. R.A.S.*, II, 3, 1924, pp. 252-258 (with note by C. O. Blagden).
- Pigeaud, Th., *Java in the fourteenth Century*, Vols. I-V, 1960-1962.
- , *Literature of Java*, I-III, 1967-1970 (especially Vol. III numerous beautiful reproductions of Javanese manuscripts and inscriptions).
- Pleyte, C. M., 'Het Jaartal op den Batoe-toelis', *Tijdschr. Bat. Gen.*, LIII, 1911, pp. 155-220.
- , 'De Patapaan Adjar Soeka Rési', *Tijdschr. Bat. Gen.*, LV, 1913, pp. 280-428 (with 5 plates, 1 facs. and 1 table with *aksaras*).
- Poerbatjaraka, R. Ng., 'De inscriptie van het Mahākṣobhyabeeld te Simpang', *Bijdr. Kon. Inst.*, LXXVIII, 1922, pp. 426 f.
- , *Agastya in den Archipel*, 1926.
- , 'Vier oorkonden op koper (Katiḍēn)', *Tijdschr. Bat. Gen.*, LXXVI, 1936, pp. 373-383.
- , 'Oorkonde van Kṛtarājasa uit 1296 A.D.', *Inscr. Ned. Indië*, I, 1940, pp. 33-49 (with introduction by W. F. Stutterheim).
- Postma, S.V.D., Antoon, 'Contemporary Mangyan Scripts', *The Philippine Journal of Linguistics*, 1972, pp. 1-12.
- , *Treasure of a Minority*, 1972 (34 illustrations, partly of Mangyan script).
- Ricklefs, M. C., 'Inventory of the Javanese Manuscripts in the British Museum', *Bijdr. Kon. Inst.*, CXXV, 1969, pp. 241-262.

- Romondt, V. R. van, 'Peninggalan-peninggalan purbakala di Gunung Penanggungan', *Publ. Dinas Purbakala Republik Indonesia*, 1951, 40 plates.
- Sarkar, H. Bh., 'South India in Old Javanese and Sanskrit Inscriptions', *Bijdr. Kon. Inst. CXXV*, 1960, pp. 193-206.
- , *Corpus of the Inscriptions of Java* (up to 928 A.D.), vols. I-II, 1971.
- Sastri, Nilakanta, K. A., 'A Tamil merchant guild in Sumatra', *Tijdschr. Bat. Gen.*, LXXII, 1932, pp. 314-329.
- , 'Śrivijaya, Candrabhānu and Virapāndya', *Tijdschr. Bat. Gen.*, LXXVII, 1937, pp. 251-268.
- , 'Takua Pa and its Tamil Inscription', *Journ. Mal. Br. R.A.S.*, XXII, I, 1949, pp. 25-30.
- Sastri, Hirananda, 'Nālandā and its epigraphical Material', *Mem. Arch. Surv. India*, LXVI, 1942.
- Singam, S. Durai Raja, *India and Malaya through the Ages (A Pictorial Survey)*, 3rd ed., 1954.
- Schnitger, F. M., *Oudheidkundige Vondsten in Padang Lawas*, 1936.
- , *The Archaeology of Hindoo Sumatra*, 1937.
- , 'De Inscriptie van Padang boedjoer (Noord Sumatra)', *Onze Aarde*, X, 1937, pp. 352-354.
- Sircar, D. C., *Select Inscriptions bearing on Indian History and Civilization*, vol. I, 2nd edn., 1965.
- Sivaramamurti, C., 'Indian Epigraphy and South Indian Scripts', *Bull. Madras Mus.*, N.S., G.S. IV, 1952.
- Stapel, F. W., *Het Bongaaisch Verdrag*, 1922.
- Stein Callenfels, P. V. van, 'Inscriptions van Trawulan', *Oudh. Versl.* 1918, pp. 172-175.
- , 'De Inscriptie van Kandangan (1350 A.D.)', *Tijdschr. Bat. Gen.* LVIII, 1918, pp. 337-347.
- , *Epigraphia Balica*, I, 1926 (*Verh. Bat. Gen.* LCVI, 3).
- , 'De Inscriptie van Soekaboemi', *Med. Kon. Ak. Wet., Lett.*, N.R., LXXVIII, B, no. 4, 1934.
- Stutterheim, W. F., 'Een oorkonde op koper uit het Singasarische', *Tijdschr. Bat. Gen.*, LXV, 1925, pp. 208-281.
- , *Cultuurgeschiedenis van Java in Beeld*, 1926 (also available in English and Javanese translations), with many reproductions of Old Javanese inscriptions (plates 4, 57, 58, 103, 104, 128, 131, 151, 221, 262 and 263).
- , *Oudheden van Bali*, vols. I-II, 1930 (with many illustrations of Old Balinese inscriptions).
- , *Gids voor de Oudheden van Soekoech en Tjita*, 1930.
- , 'Tjanđi Loro Djonggrang en Oost-Java (Oudheidkundige Aantekening XXXIX)', *Bijdr. Kon. Inst.* XC, 1933, pp. 267-270.
- , 'Beschreven lingga van Krapjak', *Tijdschr. Bat. Gen.*, LXXIV, 1934, pp. 85-93.
- , 'Een vrij overzetveer te Wanagiri (M.N.) in A.D. 903', *Tijdschr. Bat. Gen.*, LXXIV, 1934, pp. 269-295.
- , 'A Newly Discovered Pre-Nāgari Inscription on Bali', *Acta Orient.*, XII, 1924, pp. 126-132. 2 Plates.
- , 'A Malay shā'ir in Old Sumatran characters of A.D. 1380', *Acta Orient.* XIV, 1936, pp. 268-279.
- , 'De Oudste Inscriptie van Oost-Java?', *Bijdr. Kon. Inst.* XCV, 1937, pp. 397-401.
- , 'Een Inscriptie van Lombok', *Djāwā*, XVII, 1937, pp. 309 f.
- , 'Oorkonde van Balitung uit 905 A.D. (Ranđoesari I)', *Inscr. Ned.-Indië*, I, 1940, pp. 3-28, plates.
- , 'Oorkonde van Dang Ācārya Munindra uit 885 A.D. (Ranđoesari II)', *Inscr. Ned.-Indië*, I, 1940, pp. 29-32, plate.
- , *Studies in Indonesian Archaeology*, 1956 (especially the translation of an original article of Djāwā IV, 1924, on an Old Javanese 'Madonna' with long *mantra*, pp. 147-158 and fig. 23).
- , and Th. Pigeaud, 'Een Javaansche oorkonde uit den bloeitijd van Madjapahit', *Djāwā*, VI, 1926, pp. 195-204, with plate.
- Tavera, Pardo de, *Contribución para el estudio de los antiguos alfabetos filipinos*, 1884.
- Upasak, C. S., *History and Palaeography of Mauryan Brāhmī Script*, 1960.
- Vogel, J. Ph., 'Prakrit Inscriptions from a Buddhist Site in Nāgārjunakonḍa', *Epigr. Ind.*, XX, 1912, pp. 16-26, plates.
- , 'The yüpa inscriptions of King Mūlavarman from Koetei' (East Borneo), *Bijdr. Kon. Inst.*, LXXIV, 1918, pp. 167-232, 3 Plates.
- , 'The Oldest Sanskrit Inscriptions of Java', *Publ. Oudh. Dienst*, I, 1925, pp. 13-35, pl. 27-35.
- Voorhoeve, P., 'Kerintji Documents', *Bijdr. Kon. Inst.*, CXVI, 1970, pp. 369-399, plate 4.
- Wales, H. G. Quaritch, 'Archaeological Researches on ancient Indian Colonization in Malaya', *Journ. Mal. Br. R.A.S.*, XVIII, pt. I, 1940, pp. 1-85, plates.
- , *Dvāravati. The Earliest Kingdom of Siam (6th to 11th century A.D.)*, 1969 (especially plate 9).

INDEX

(all figures refer to pages; additional asterisks indicate footnotes)

A. INSCRIPTIONS DISCUSSED OR MENTIONED

- Ādityavarman (inscriptions of) 56, 57, 58, 64, 66, 69, Plate IX b
Amoghapāśa of Padangroco 57, 57*
Amoghapāśa bronzes 61
Anurādhapura See Ruvanvälisaya Pillar inscription

Bagumra Copper-Plate Inscription of Rāṣṭrakūta Indrāraja 37
Bali, script of 37, 43, 59
Bandar Bapahat stone inscription 69
Bangka See Kotakapur inscription
Banjararum inscription 40*
Bankskhera copper-plate inscription of Harṣa 22
Barabudur inscriptions 32, 32*
Barus See Lobok Tua
Batubēdil inscription 44
Batutulis inscription 54
Buddhadāsa See Ruvanvälisaya Pillar inscription
Bawang inscription 44
Bēbētin copper-plate inscription (Bali) 43, Plate III c
Bhadravarman See Cho-dinh inscription
Bhimadeva II, inscriptions of 61
Bima, inscription in 67*
Bukit Mēriam (Kēdah) 19

Calcutta inscription of Airlangga 39 f., 43, Plate V b
Calcutta fragments of Singapore inscription 45*
Campaga, inscription of 59
Candi Jago, inscribed images of 61, 61*
Candi Lor, stone inscription of 38, 39*
Cane, stone inscription of 39*
Canggal, inscription of 27, 30
Cherok Tokun, rock inscriptions of 19
Cho-dinh, stone inscription of 16, 17
Ci-Aruteun, rock inscription of 19
Ci-catih, stone inscriptions of 43 f., 56
Cōla inscriptions 69

Dharmapāla, Nālandā inscription of 61*
Dieng, inscriptions from the 65*
Dinoyo, Sanskrit inscription of 28-31, Plate IIIb

Ganeśa with inscription, Karangréjo 42, Plate VI b
Ganeśa with inscription, Porlak Dolok 44 f., 69
Gētas See Plumpungan

Hujunglangit, stone inscription of 44
Ikṣvāku inscriptions See Nāgārjunakondā

Jaiya (Chaiya), Sanskrit inscription of 45
Jambu, stone inscription of 18*, 19
Jiyu, inscriptions of 64
Joreng (Tapanuli), inscription of 44

Kadiluwih See Canggal
Kalasan, stone inscription of 36, Plate III a
Karangréjo, inscribed Ganeśa of 42, Plate VI b
Karangtēngah, bilingual stone inscription of 32
Kawali, stone inscription of 54 f., Plate IX a
Kēbantēnan, copper-plate inscription of 54, 55*
Kēdah (Malaysia), inscriptions of 13, 19, 20
Kēdu, inscription of Canggal in 27
Kēdukan Bukit, stone inscription of 27
Kēlurak, Early Nāgari stone inscription of 5*, 35*
Kota Kapur (Kotakapur), inscription of 25
Krapvak, Polengan inscriptions from village of 33, Plate IV a
Kuala Sēlingsing, inscribed seal from 13
Kujonmanis, stone inscription of 39*
Kumāra Gupta III, seals of 12
Kutai, yūpa inscriptions from 13*, 14, 17-19, 66, Plate I a

Leran, Arabic inscription of 70
Ligor, Sanskrit inscription(s) of 29, 32, 45
—, Tamil inscription of 69
Lobok Tua (Lobo' Tua), Barus, Tamil inscription of 46, 69
Lokanātha, inscription on (Gunung Tua, Tapanuli) 44, 44*, 58
Lombok, the only known ancient inscription of 59*
Loro Jonggrang, inscriptions in paint of 6*
Lowokjati (Lawajati), inscription of Plate V a

Madura, rock inscription in See Mandiraga
Malik Ibrāhīm, inscribed tomb stone of (Grēsik) 71
Maliku's-Sāliḥ, inscribed tomb stone of (Pasai) 58, 70
Māmallapuram, inscriptions of Mahendravarman at 20*
Mandiraga, rock inscription at 59
Mansūr Shāh, inscribed tomb stone of (Malacca) 71, 71*

- Mayidavolu, copper-plate inscription of 18
 Minye Tujuh, inscription of 58, 70
 Muarakanam (Muara Kaman) 14, 66 *; see Kutai
- Nāgārjunakonda (Andhra Pradesh, India) 15, 15 *
- Nakhon Śri Thammarāt See Ligor
- Nandivarman III (Pallava), Tamil inscription of the time of 68 *
- Ngadoman (Adoman), stone inscription of 65, 66, Plate X
- Ngantang, stone inscription of 42
- Oc-éo, inscribed seals etc. of 12, 12 *, 13
- Padanglawas, inscriptions of 44, 44 *
- Padangroco (Padang Roco), inscribed Amogha-pāśa of 57
- Padukuan Duku, stone inscription of 64
- Palama (Sumbawa), rock inscription of 59, 67 *
- Panulisan, stone inscription from Gunung 59
 Pēnanggungan, copper-plate inscription from Gunung 49, Plate VII a
 —, numerals inscribed at Gunung 42 *, 53
 —, 'Calcutta Inscription' from (?) 39 *
 Plaooson-Lor, short inscriptions at Caṇḍī 6 *, 33, 33 *
- Plumpungan, stone inscription of 28 f.
- Polengan, copper-plate inscriptions of 33, Plate IV a
- Porlak Dolok (Padang Lawas), inscriptions of 44 f. (Old Malay), 69 (Tamil)
- Rāṇḍusari, inscription I of 33, Plate IV b
 Rēnēk, copper-plate inscription of 51, 51 *, 54, 63, Plate VIII a
 Ruvanvälisaya, inscription of Buddhadāsa (Ceylon) 17 f.
- Sanur (Bali), inscription of 37
- Sēndang Sēdati, copper-plate inscription of 63 f.
 Sigiri(ya) (Ceylon), graffiti of 73
 Sindok, inscriptions of 38, 43, 47, Plate V a
 Singosari (Singhasari), Dakṣa's inscription of 38
 —, stone inscription of (1351) 49 f. Plate VII b
 —, period 47
 Singapore, inscription of 45, 45 *
 Śrīwijaya (Śrivijaya), inscriptions of 24-27, 30, 38, 72, Plate II b
 Sukabumi, stone inscription of 31 *, 38, 43
 Sukuh, inscriptions of Caṇḍī 65 f.
 Sumbawa See Palama
 Sunda 43 f., 54-56
 Sumēṅka, inscription of 40 *
 Sungai Langsat See Padangroco
 Suradakan, copper-plate inscription of 63
- Takuapa, Tamil inscription of 68, 68 *, 69
 Talang Tuwo (Talangtuwo), inscription of 24, 26, 27, 30 *, Plate II b
 Tapanuli See Joreng, Lobok Tua and Porlak Dolok
 Trēngganu, stone inscription of 68 *, 70 f.
 Troloyo, tomb stones at 50 f., 52, 71, 71 *
 Trowulan, copper-plate inscriptions of 47, 51, 51 *, 52
 Tugu, Sanskrit inscription of 19
 Tulu Mas, Sanskrit rock inscription of 23 f., Plate I b
 Turunhyang B, copper-plate inscription of (Bali) 40 *
- Ugrasena, inscriptions of (Bali) 37
 Uruvappalli copper-plate grant 21
- Vākāṭakas, inscriptions of the 12 *
 Vilavatti, copper-plate grant of Simhavarman 21 *
- Vo-canah, rock inscription at 13, 13 *

B. PALAEOGRAPHIC TERMS AND DETAILS

- acute-angled (*akṣaras*) 24, 35, 39, 49, 64
anusvāra 3, 3 *, 25
 Arabic script 26, 50, 52, 58, 60, 62, 63, 68, 70 f.
- bamboo, writing on 60
 Batak script 66
 Bengkulu (Bencoolen) script 66
 Bimanese script (Sumbawa) 66 f.
 borrowing, of script from other regions 44, 66 f.
 box-heads (square head-marks) 15
brāhma script 12
 brush, writing with 5, 6, 39 *, 64
 Bugis (Buginese) script 66
- cakra See Reg. C. s.v. -r-
 Caulukyas, script of the 61
 Celebes See Sulawesi
 Central Sumatra, script of 55-58, 66, 69
 Ceylon, See Sri Lanka
citra, *citraka* 6
citrālekhā, *citrālkhana*, *citrālikhita* 6
 contrasted strokes 5, 39, 59
 copies (of inscriptions) 2, 47 f.
 cursive style 23, 30
- Devanāgarī script See Nāgari script
 digraphic inscriptions 37, 69, 69 *
- European (Latin) script 60

- 'equal height' principle 20 f.
- final consonants 3, 31, 34, 67
- Gupta script 12
- groups (of letters) 9
- head-marks See serif
- interlinear spacing 15, 24, 27, 43
- Kadambas, script of the 13
- Kaṇḍīri script 10, 38-42, 45 f. 48, 54,
- Kaṇḍīri Quadrata script 7 *, 42
- Kalimantan (Borneo), script of 14, 17 f., 23
- Kawi script, Early 28-37
- , Later 38-46
- , Defined 28 f., cf. 6, 8-10
- Kērinci script 66, 66 *
- Khmer script 60 *
- Kuñjarakarṇa manuscript 6, 6 *, 53 f.
- Kuntala, script of 13
- Kuṣāṇa script 12
- kuṭila* script 35, 37
- Lampung script 44, 66
- lāñcana* 7 *
- Laotian script 60 *
- Latin script 60 *
- likhitapatra* 6, 6 *
- literacy 9 f., 59 f., 72 f.
- 'local genius' in script 14, 14 *, 72
- long vowel marks (Old Malay) 25 f.
- lontar* 4 *, 6, 28, 43, 48, 53
- loop (of *na* etc.) 8, 9, 24 f., 54, 57
- Luçon, script in 60
- maesan*, inscribed 52, 70
- Majapahit period, script of the 10, 45, 45 *, 47-60, 64-66, 72
- Macassarese script 66 f.
- Malaysia, script of 13, 19, 70 f.
- Malayu script 56-59, 61, 66, 69, 72
- Mangyan scripts 69 *, 73
- manuscripts (Old Javanese) 53, 67; cf. Kuñjarakarṇa
- Mindoro, scripts of 60, 67 *, 73
- minuscule (*ma*) 20
- monoline 5, 9, 24, 34, 38, 43, 45
- monumental style (of writing) 23, 28, 49 f.
- Nāgari, Indian 22
- , Early (Indonesia) 35-37
- , Later (Indonesia) 60-62
- nail-heads (triangular head-marks) 35, 37
- Nālandā, script of inscriptions from 12 *, 61 *
- nipa(h)* (palm-leaf) 53
- North Sumatra, scripts of 44, 58 f., 69 f.
- notched serifs 18, 24 f. 40
- horizontal strokes 28
- numerals, Old Javanese 24, 42, 50-53, 71
- painted inscriptions 6, 6 *
- serifs 41
- Pajajaran script 54-57, 65
- Pāla script 60
- Pallava script, general and Indian 8-10, 13 f., 28, 68
- , Early (Indonesia) 14-20
- , Later (Indonesia) 20-27
- palm-leaf 5, 21, 28, 30 f. 55; cf. *lontar*, *nipa(h)*
- Pasai, script of 70 f.
- patēn* 25, 41, 55, 67 *; cf. *virāma*
- pattrā* 6
- pēgon* script 62
- Philippines, writing in the 67, 67 *, 73
- prasiasti* 31
- Prenāgari script See Nāgari
- projectors 20 *, 21, 24
- punctuation
- Rājasthāni script 35
- Réjang script 66 *
- ripta* 7 *
- sandhi* 31
- sans-serif* 15, 51
- script, knowledge and use of 9 *, 72 f.
- script and political history 1 f., 47, 72
- 'sculptured' verticals or letters 28, 42, 58
- seals, inscribed 13
- serif 15, 16, 18, 24, 27, 30-33, 42 f., 49-52, 54, 56, 59, 64 f. notched, 18, 18 *, 24; painted, 6 *; linear, 18, 30
- siddhamātrikā* (siddham) script 35
- Sinhalese script 60 *
- South India, script of 13, 18, 23, 36, 62
- South Sumatra (Sumatera Selatan), script of 24, 42-44
- spelling 25-27, 31
- Sri Lanka (Ceylon), script of 13, 23, 36, 73
- stylus 5 f., 21, 28, 30, 64
- Sulawesi (Celebes), script in 60, 66 f.
- Sumatra See North Sumatra, Central Sumatra, South Sumatra, Malayu script
- Sunatra Tengah See Central Sumatra
- Sunda 42-45, 61, 72; see also Pajajaran
- Tamil script 20, 30 *, 44, 46, 60 *, 63, 68-70
- Thai script 4 *, 60
- tree bark (writing on) 5, 6, 60
- tribhangā* 39
- upright (script) 45, 56
- Vengī (script) 13, 28
- writing techniques 2-6, 21, 28, 34, 43, 50, 59, 60, 64

C. INDIVIDUAL LETTERS AND OTHER SIGNS USED IN WRITING

- a- (initial *a*) 16, 21, 33, f., 55, 57
 -ā (medial *a*) 17, 19 f., 30, 30*, 32, 51, 64
 -ē (medial *ē*) 26 f., 34
 -i (medial *i*) 15, 18 f., 41, 55, 57
 i- and -i (initial and medial *i*) 2*, 15, 18
 -u 8*, 16, 18 f., 34
 -e 20, 35, 55
 ai- 51
 -o 20
 ka 16-23, 30, 33, 34 (*ku*), 49, 56, 64
 kha 15, 18, 22
 ga 8*, 15 f., 38, 40 f., 45, 49, 57, 65
 gha 49
 ūa 15, 25
 ca 8*, 39, 49, 67*
 ja 15, 17, 25, 32 f., 39, 64, 36 (Nāgari)
 ūña 16, 18, 21, 51, 64
 da 24, 49
 ḥa 15 f., 19-24, 49, 51
 ta 8 f., 16, 22 f., 33 f., 45, 49, 56, 65, 61 (Nāg.)
 tha 49 f.
 da 33, 39, 57
 dha 15, 19, 24, 49, 56
 na 8 f., 16, 21-23, 25, 33, 39-41, 51, 54, 57,
 64 f., and 36 (Nāg.)
- pa 9, 17 f., 24, 30, 33 f., 38 f., 41, 54, 56 f.
 ba 15, 18, 39 f., 40*, 64
 bha 8*, 19, 49, and 61 (Nāg.)
 ma 15, 18-20, 21, 24, 30, 38, 40, 55-57, 64, and
 37 (Nāg.)
 ya 16 f., 21, 25, 33-35, 49, 54 f., 65
 ra 8, 16-21, 24 f., 27, 30, 30*, 34, 39, 49, 51 f.,
 55, 64
 -r- (subscript *ra*) 25, 32, 38
 r- (superscript *ra*) 34 f.
 la 15 f., 21-24, 51, 56
 wa (or *ve* in Sanskrit) 8*, 33 f., 38 f., 41, 49 f.,
 56
 śa 15 f., 38, 40 f., 49
 śa 9, 17, 24, 34, 38, 40 f., 41, 57
 sa 17, 24, 30, 33 f., 38, 41, 45, 54-56, 65, and
 37 (Nāg.)
 ha 17 f., 22, 24, 34, 39, 51, 56, 64, and 36 (Nāg.)
anusvāra (*m* or *-ng*) 3, 3*, 25
cakra See -r- (subscript *ra*)
 various ligatures 15-18, 19, 26 f., 31, 34, 56 f.
upadhāniya 19
virāma (*paten*) 3*, 20, 25, 30 f., 33 f., 38, 41,
 55, 67, 67*
visarga 3

LIST OF PLATES

I a

One of the seven known *yūpa* inscriptions of Mūlavarman from Muara-kaman, Kutai, Kalimantan Timur (East Kalimantan). The script is Early Pallava with pronounced 'box-heads' (especially clear in line 2), downward extension of the verticals of *a*-, *ka*, and *ñā* (cf. the *rā*, the penultimate letter of line 1) and the minuscule *-m*, written far below the line at the end of lines 2 and 3. Probably dated c. 400 A.D.

Transcription (cf. Chhabra, *Tijdschr. Bat. Gen.*, LXXXIII, 1949, p. 372):

1. śrī-mūlavarmmaṇā rājñā
2. yad-dattan-tilaparvvatam
3. sadipamalayā sārddham
4. yūpo yam likhitas-tayoh

I b

Left half of the rock inscription of Tuk Mas near Lēbak, kac. Cokro, kaw. Grabag, kab. Magēlang, Kēdu, Jawa Tēngah. Later Pallava with *akṣaras* of equal height, but preserving also archaic features, such as the curious shape of the *la* (in *lā* and *lu* near the middle of the inscription). Also the *ta* and *na* are still quite similar. Over the inscription the lower part of the emblems is still visible. There is a good facsimile in H. Kern, *Verspr. Geschr.*, VII, 1911, p. 203, with complete transcription and discussion. Cf. also Chhabra, *Expansion*, pp. 43 f.

Transcription:

śucy-amburuhānūjātā kvacic-chilāvālukā nirggateyam . kvaci

II a

Rock inscription of Pūrnavarman at Ci-Aruteun, kac. and kaw. Leuwiliang, kab. and kar. Bogor, Jawa Barat. It consists of one Sanskrit *śloka*, cut in the rock besides a pair of footprints, which are, as the inscription explains, those of Pūrnavarman, king of Tārumā. The script is closely related with that of I a, but also shows some innovations, notably the *-i*, expressed as a full circle over the *akṣara* to which it is attached, e.g. in *vi* at the beginning of line 1. In front of the footprints is

a short inscription in so-called shell script, known from other examples in India. Its reading is, however, uncertain; some think that it may be a 'signature' of Pūrṇavarman.

Transcription: (cf. Vogel, *Publ. Oudh. Dienst*, I, p. 22):

1. vikkrāntasyāvanipateḥ
2. śrīmateḥ pūrṇavarmanāḥ
3. tārumānagarendrasya
4. viṣṇor-iva padadvayam //

II b

Middle portion of lines 10 to 13 of the Old Malay inscription of Talang Tuwo near Palembang, Sumatēra Sēlatan. It is one of the early inscriptions of Śrīwijaya, dated A.D. 684. The script is Later Pallava, functional rather than decorative.

Transcription (cf. G. Coedès, *B.E.F.E.O.*, XXX, 1930, p. 40):

1. ga marśila kṣānti marvvāñun vīryya rājin
2. dhāvi . punarapi dhairyamāñi mahāsa-
3. rūpa . subhaga hāsin hālap āde-
4. nmavaśitā . karmmavaśitā . kleśavaśi-

III a

End of the four last lines of the Sanskrit inscription of Kalasan, kac. and kaw. Kalasan, Jogjakarta, Jawa Tēngah, written in Early Nāgarī script. Among its characteristic features are the 'nail-heads' on top of most verticals, the slant of some horizontal strokes and especially the angular shape of the subscript *ya* (-y-) visible in *nyo* (line 1) and *nye* (line 2). This -y- extends over nearly three *akṣaras*. It is dated A.D. 778.

Transcription (cf. Bosch, *T.B.G.*, LXVIII, 1928, p. 59):

1. bhūyo bhūyo yācate rājasimhah . sāmānyo yan-dharmasetur-na-
2. h // anena puṇyena vihārajena pratityajātārthavibhāgavi-
3. nā jinānām-anuśāsanajñāḥ // kariyāṇa-paṇāṃkaraṇāḥ śri-
4. jñeyo vidhivad-vihāraparipālanārtham-iti //

It should be added that the stone shows traces of an earlier inscription which was erased before the present inscription was incised. Thus one may still recognize traces of the ligature *nya* under *vidhivad* in the last line.

III b

Lines 10 and 11 of the inscription of Dinoyo, kac. Dau, kaw., kab. and kar. Malang, Jawa Timur. It is in Sanskrit and is dated A.D. 760. It is one of the oldest examples of Early Kawi script, remarkable for its cursive style and the roundish form of the *akṣaras*.

Transcription:

1. samīkṣya kirittipriyah kalaśajapratimāṁ manasvī ājñā-
2. pya śilpinam aram sah ca dīrghadarśśi krṣṇādbhutopalama-

III c

Left half of lines 1 to 5 of the Old Balinese inscription of Bēbētin, No. A I (see R. Goris, *Prasasti Bali*, I, 1954, p. 6, pp. 54 f.; II, pp. 120-122), dated A.D. 896. The present inscription is, however, a later copy, presumably made, as Goris indicates, in the reign of Anak Wungsu, A.D. 1049, when the last additional edict was promulgated and inscribed together with the earlier edicts. The script is, in fact, quite similar to that of contemporary stone inscriptions in East Java, notably that of the so-called 'Calcutta Stone Inscription' of 1041.

Transcription:

1. // yamu pakatahu sarbwa kumpi addhi . diñāñātri . nāyakan makarun cakra .
2. ra kanakkañña ulih bunin tua hetu syuruḥku nayakan praddhana kumpi ugra me bhikṣu wi-
3. ndang kalod . hangga tukad batang karuh . hangga tasik-kadya . tathāpi tu anak ma-
4. me anak-madaña ditu . yathāña taman marumah di kuta . tkapan-dañaña ada tani tama
5. me pamusitayangña . tu anak-banua matarahin kuta . ana marulih buninya

III d

Last four lines of the Sanskrit and Old Javanese inscription of Pereng, kac. Prambanan, kaw. Gondangwinangun, kab. and kar. Klaten, Jawa Tengah, dated A.D. 863. The script is the standard form of Early Kawi, not very different from that of II b, which is a century older, but more regular. Line 3 shows two examples of the -ĕ, a fairly recent innovation, written as an -i with a cross inside. The same line also shows an example of rĕ, as well as of the manner in which lă and lo are expressed; a normal -ă

mark would transform a *la* into *na*. Except for *cca* (the end of Sanskrit *anyac-ca*, 'and another one'), the quoted passage consists of an *ārya* verse in Sanskrit and an *anuṣṭubh* in Old Javanese. For the complete text see H. Kern, *Verspr. Geschr.*, VI, pp. 277 ff.

Transcription:

1. cca // jagatāṁ śivam- astu sadā godvijarājñāṁ tathā śivaratānāṁ
2. śrutibhaktidānadharmmā bhavantu nārātirogerṣyāḥ // o //
3. // tuṅgang dawēt-larika sērēḥ wulakan-niwalā walaing lo-
4. dwāṅg wanwanira-ng dhimān kumbhayoni nārannira // o //

IV a

Beginning of the second copper-plate inscription of Polengan, kal. Krapyak, kac. Kēnaren, kaw. Kalasan, Jogjakarta, dated 875. These important inscriptions are still unpublished. The script is again the standard form of Early Kawi, but here the more cursive style used on copper plates and probably reproducing the style of writing on palm leaf.

Transcription:

1. // o // swasti śakawarśātīta 797 baiśākhamāsa . dwitiya śuklapakṣa . tuṇlai pon somawāra . tatkāla rakarayān i sirikan <pu>
2. rakap . manusuk sawah tampah 4 i humaṇḍing watak-śirikan . simā nikānang prāśāda i gunung hyang lmaḥ i mamali . dmakan saṇkā i śrī *ma*-
3. hārāja rakai kayuwani . anung inangsēan pasak pasak wyawastha ning manusuk-śima // samgat wadihati pu managiḥ sisim pasa<da>
4. woḥ 1 wrat mā 8 wđihan aṇsit yu 1 tuhān 2 mirahmiraḥ si guwar . spang si wadag sisim pasada woḥ 2 wrat mā 8 <wđi->
5. han aṇsit yu 2 anung kinon milua manusuk-śima . kuwu si ami sisim pasada woḥ 1 wrat mā 4 wđihan aṇsit yu <1>
6. // samgat makudur pu maṇiṇḍit sisim pasada woḥ 1 wrat mā 8 wđihan aṇsit yu 1 tuhān 2 watuwalai si mnang . pu..
7. si jakhara sisim pasada woḥ 2 wrat mā 8 wđihan aṇsit yu 2 anung kinon milua manusuk śima . hambulu si tuhu si <si->
8. m pasada woḥ 1 wrat mā 4 wđihan aṇsit yu 1 manghuyup mas mā 1 wđihan raṅga yu 1 sihēl yu 1 saji ing kulumpa<ng>
9. mas mā 4 wđihan raṅga yu 4 wadung 1 rimwas 1 patuk 1 kris 1 lukai 1 twak punukan 4 laṇḍuk 1 li<ṅgi->
10. s 4 waṇkyul 1 gulumi 1 kurumbhāgi 1 nakhaccheda 1 dom 1 tahas 1 padamaran 1 saragi pagaṇa<nan>

IV b

Left half of lines 11-13 of the copper-plate inscription of Rañdusari, kac. Prambanan, kaw. Gondangwinangun, kab. and kar. Klaten, Surakarta. The inscription is dated A.D. 905 during the reign of Balitung. The script is quite similar, though stylistically somewhat different, compared with the previous sample. In a number of cases one can quite clearly see how exactly the *akṣaras* were written: thus, the *ma* was written in two strokes, the first downward and to the right, describing about the lower half of an ellipse and terminating in a small serif, the second stroke similar in shape but beginning at the point where the first ellipse is flattening out and drawn to the base line and up again till it joins the first stroke just below the serif. For the complete transcription and translation see Stutterheim, *Inscr. Ned.-Indië*, I, 1940, pp. 3 ff.

Transcription of the sample:

1. nangsēan pasak-pasak wđihan kalyāga yu 1 mas su 14 kbo
2. ayam tēas 2 sang miramirah̄ pu rayung anakwanua i miramirah̄ watak
3. kwanua i mantyāsih̄ watak makudur . mangraïkappi sang maṇḍyā-iiñ anakwa-

V a

Part of lines 18-22 of the back of the stone inscription of Lowokjati near Malang, Jawa Timur. As the other two samples on this page, this illustration is based on part of the photograph of an inked estampage as the stone itself is badly withered. As in most inscriptions of king Siñdok (c. 929-947) the letters are upright and square. There is a tendency towards angularity, and many letters are without serif or decorative elements.

Transcription:

1. pasak pasak muang wđihan i sira kabaih̄
2. kawiku sumāñaskāra ika sang hyang susuk mua<ng>
3. r-ning witāna mandlān* pāda masiñhēl wđiha<n>
4. makudur mañuyut manētēk gulu ning hayā<m>
5. napathe saminangmangnira dañu i katguhakna sang hyang

* Probably to avoid the triple ligature *ndlā* the *n* is written by itself with a *patēn* (*virāma*).

V b

Parts of lines 9 to 12 of the Old Javanese side of the so-called Calcutta inscription of Airlāṅga, dated A.D. 1041. In contrast to the preceding example the script of this inscription, though a closely related type of

Later Kawi, is much more decorative. The *akṣaras* are slightly elongated, while most of the straight strokes are replaced by elegant curves. The transcription which follows is based on the work of H. Kern, *Verspr.* *Geschr.*, VII, p. 104, with the important corrections by Poerbatjaraka, *T.B.G.*, 81, 1941, p. 431.

Transcription:

1. <su>ddhācāra . mering lāwan hulunira samekānta pratipatti mana<h>
2. <hulu>n śrī mahārāja atisayeng dṛḍabhakti tumūt-tansāḥ i sa <paran>
3. *yatan wiṣṇudi* śrī mahārāja ri karādhanan bhaṭāra riñ-aho<rātri>
4. *kalpapādapa* nāhēbana bhuwana . kumalilirana kulit-ka<ki>

V c

Parts of lines 18-20 of the back of the stone inscription of Ngantang, kac. Ngantang, kab. and kar. Malang, Jawa Timur. The inscription is dated A.D. 1135 during the reign of Jayabhaya. The elegant and elongated shape of the *akṣaras* is typical for the Kadiri period.

Transcription: (see Brandes, *Oud-Jav. Oork.*, p. 156):

1. pakbo . pahawuhawu . paṅgare . pakatar . pālak
2. saṇḍung lamar . skar-tahun . pabisar . pawuruk . pawla<ng>
3. n . juru jalir . manghwan . haturan bang . haturan pā-

VI a

One of the rock inscriptions of Tampaksiring, Bali. The *akṣaras* are highly stylized and ornamental. This type of script, typical for the Kadiri period but occasionally also found later, is usually called quadrate, though in this particular style the letters are much wider than is usually the case.

Transcription (cf. W. F. Stutterheim, *Oudheden van Bali*, I, p. 72):
haji lumāh-ing jalu

VI b

Inscription on the back of a Gaṇeśa image at Karangrējo, kac. Garum, kaw. and kab. Blitar, kar. Kēdiri, Jawa Timur. This is a different and less decorative kind of 'quadrate' script of the Kadiri period, in this case of the first half of the twelfth century. The reading of this still unpublished inscription is difficult.

The following is a tentative transcription of the six first lines:

1. 1056
2. . . nugraha rahyang ta tāñca . . .
3. lanirañanti ri bhumi samairikana ta sira wā-
4. ranugrahani i sira sang brahmacari duwē gaja-
5. senāngo kolaholahan palañka pinupu-
6. t sari ring nawanati an pahulunana pujut wuku

VII a

First plate of the Pěnanggungan Copper-plate Inscription of Krētarā-jasa, dated A.D. 1296. This is an excellent example of Majapahit calligraphy. The writing on the copper plates, more than that of the stone inscriptions, clearly imitates the writing on palm leaves.

Transcription, following Poerbatjaraka, *Inscr. Ned. Indië*, I, p. 38:

1. // o // swasti śakawarṣatīta . 1218 . karttikamāsa . tithi . dwitiya śuklapakṣa . tung . ka . ca . wā-
2. ra . kuniñan . dakṣiṇasthagrahacāra . adrānakṣatra . mitrādewatā . baruñamañḍala . atigañda-
3. yoga . wairājyamuhūrtta . kuweraparwweśa . walawakāraṇa . mṛcchikarāśi . irikā diwaśa ny-ājñā
4. śrī mahārāja . śrī yawabhuwanaparameśwara . aninditānubhāwa-parakramakalpadrumaparijātanā-
5. masamānādhikarāṇa . kṣatrāwangsakulawyapagataghanagaganā-tārāgaṇasangkīrṇapūrṇaśāśāñkanirbhi-
6. nna . sanggrāmaśūraśūrataraśūra . jagatkālakūṭārīrājadhwāṅgskāra . śāsanāntakanarawaraśiraccheda-

VII b

Beginning of the stone inscription of Singosari, kac. and kaw. Singosari, kab. and kar. Malang, Jawa Timur. Though incorporating an older date (A.D. 1292), the inscription itself is dated 1351 at the height of the Majapahit empire. The beauty of the writing, which achieves just the right balance between functional and decorative elements, shows the hand of a real artist. In addition, this example shows even more clearly than the previous one how precisely the letters (or rather their prototypes on palm leaf) were executed. Thus there can be no doubt that the prototype was written with a fine brush. A close look at, for instance, *ka* at the beginning of line 2 shows that the first stroke started at the right hand top, running to the base line in a downward curve to the left, and was followed by the two smaller curves.

Transcription (cf. Brandes, *Tjandi Singasari*, 1909, p. 38):

1. //o// i śaka . 1214 . jyeṣṭamāsa . irika diwaśa ni
2. kamoktan pāduka bhaṭāra sang lumah ring śiwabuddha //o// swa-
3. sti śrīśakawarṣatita . 1273 . weśakamāsa . tithi pratipā-
4. da śuklapakṣa . ha . po . bu . wara . tolu . niritisthagraha-

VIII a

First side of the second plate of the Rēnēk Copper-plate Inscription, probably dated 1379. The examples shows one of several styles of writing used in documents of the Majapahit period. Although the basic shape of the *akṣaras* is not different from that of VIIa, there is a pronounced stylistic contrast. The most striking detail of the present inscription is the frequency of serifs at the beginning and the end of almost all strokes.

Transcription (cf. W. F. Stutterheim and Th. Pigeaud, *Djåwå*, VI, 1926, pp. 195-204):

1. sira samasanak ring gilang . sira mūladharma guṇa . sira gusti rañca . sira malar . wwang . 3. samering lēmbah
2. lawadan . sira buyut sānu . sira wita . sira tukup . wwang . 3 . kapalang . sira tañgon . kabaya-
3. n . sira kēṭul . gusti sira biṣa . wwang . 3 . makādhī wadana . sira sañ-anden ing tambak . sira gampil
4. hañalihi sira buñkēm . manēn . tsira gajul . juburuḥ . sira donan . sira pagon . sira surung .
5. . wwang . 6 . puniku kta kang katulis hañjēnēni samañarēp . ring sadeṣadeṣa . punang wong lēmbah .

VIII b

Fol. 3 of the *Kuñjarakarṇa* manuscript (Cod. Leid. No. 2266), probably of the second half of the fourteenth century. The writing is again stylistically quite different from that of the previous two examples, though there are few basic differences. The stylistic difference is probably due to the use of different writing tools and materials, in this case, a pen and black ink on *niṣpa* leaf.

Transcription (see Kern, *Legende van Kuñjarakarṇa*, 1901, pp. 58 f.):

1. hyunta ya rumēnēha waraḥ bhaṭāra . yeking mañke bawanya .o.
seg . ñēg. os . marma tan-asuwe riñ-awan . datēng ta ya ring buddhi-

2. cinta . ri kahyangñān-bhaṭāra śri wirwacanā . tumuluy-ta ya mamujā ri bhaṭarā . ri tlasnya mamujā . manembhaḥ ta ya . lingnya . uduḥ sajña bha-
3. ṭāra . kasihana ta ranak-bhaṭāra pwangkulun . warahēn ri sang hyang dharmma . sakala ri kapalañalang ring janmaniranak-bhaṭāra
4. ḥuniweḥ pasambhulihira dadi jānmā . apan-hana tinwani ranak-bhaṭāra ikang wwang ring madya paḍa . hana hadyan-hana hulun . apa du-

IX a

Stone inscription of Astana Gede, Kawali, kac. and kaw. Kawali, kab. Chiamis, Priangan Timur, Jawa Barat. Though undated, the inscription can be attributed to the second half of the fourteenth century on the basis of the name of the king. The script is quite different from that of East Java in the same period and has become characteristic of western Java.

Transcription : (see Pleyte, *T.B.G.* LIII, p. 167) :

1. nihan tapa kawa-
2. li nu sang hyang mulia tapa bha-
3. gya parēbu raja wastu
4. maṇadēg di kuta ka-
5. wali nu mahayuna kadatuan
6. sura wisesa nu marigi sa-
7. kuliling dajeh nu najur sakala
8. desa aja manu pandēri pakēna
9. gawe ring hayu pakēn hēbēl ja-
10. ya dina buana

IX b

Stone inscription (lines 10 to 16) of Ādityavarman at Kubur Raja, near Limo Kaum, Batusangkar, Sumatra Tengah, not dated but certainly belonging to the middle or second half of the fourteenth century. The script, though clearly related to East Javanese script, shows also some typical features not found outside Central Sumatra, such as the shape of the *ma*, consisting of two unconnected parts (see e.g. *mma* at the beginning of line 2), and that of the *a*- (third *akṣara* of line 5) and *ā*- (twice in line 2) with the *cakra*-like curve.

Transcription (see Kern, *Verspr. Geschr.*, VII, p. 219) :

1. jana kalpataruruṛpa-
2. m - madanā // ā // Ādi-

3. tyavarmmmam - bhupa kulisā-
4. dharavañsa / o / pra-
5. tikṣa avatāra
6. śrī lokeśvara

X

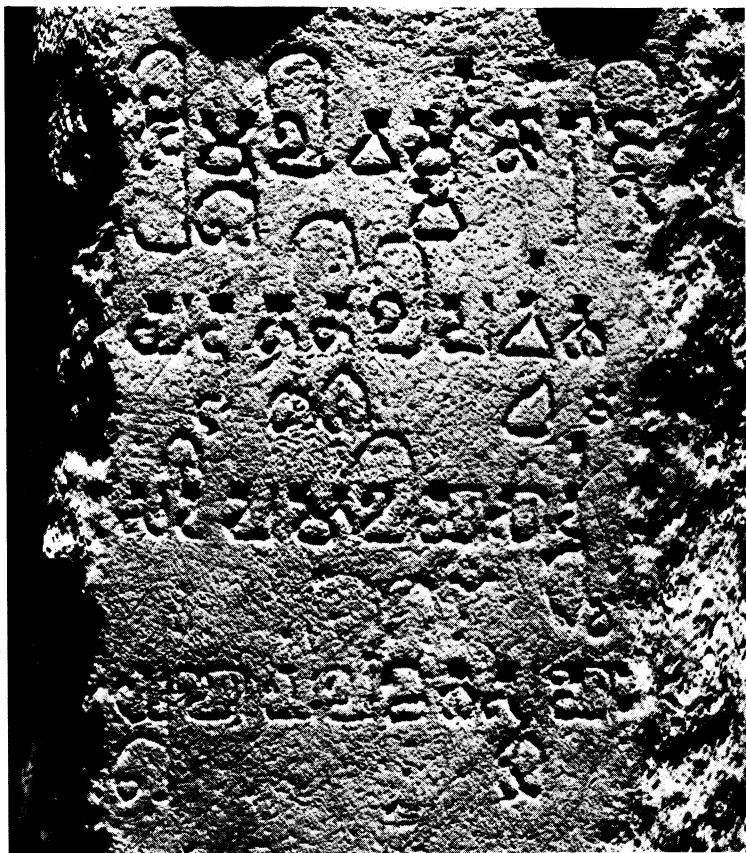
Stone inscription presumably from Ngadoman on the eastern slope of the Gunung Mĕrbabu, kaw. Salatiga, kab. and kar. Sĕmarang, Jawa Tengah, dated A.D. 1449/50. The script is an interesting variety of late Old Javanese script, not, as one might have expected, a type intermediate between Old and Modern Javanese script.

Transcription (see Cohen Stuart, K.O., No. XXVII):

1. Om sri sarasoti krēta wukir - hadi umalung uri-
2. p-ing buwana añaakra murusa patirtan - palēmaran hapan - yang
3. widi hani deni yang raditya yang wulan hanĕlĕ i halahayu
4. ni dewamanusa yang hanut - yang hagawe bajaran - tapak - tangtu kabahha
5. deni dewamanusa muwah sang tumon sang ḥamanah - arĕnĕ luputa
6. ring ila-ila paḍa kadĕlana tutur - jati yen - ana ḥabah ta-
7. npa bĕkĕl - apatik - wĕnang tanpa baktaha histri pitung hajama tan - wawa
8. dona wastu . sri syati sakawarsa * 1371.

* Representation of a *linga*.

PLATES

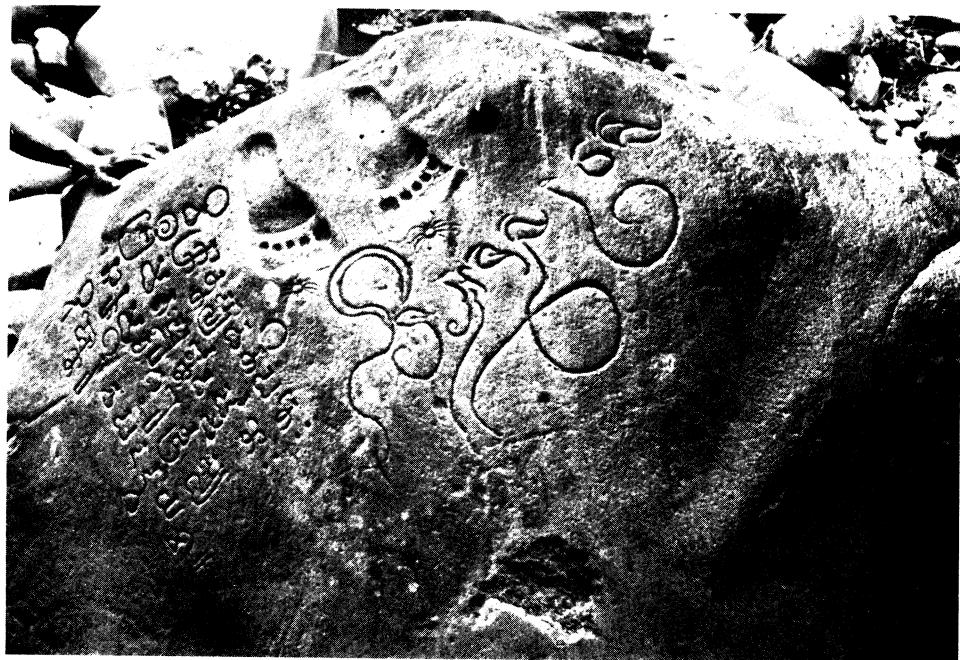


a



b

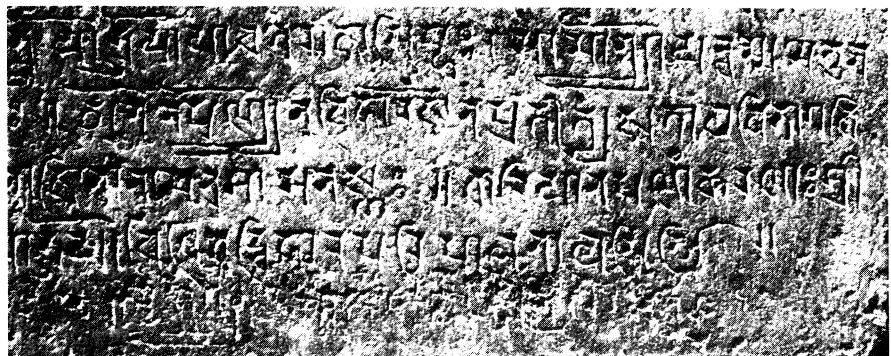
PLATE II



a



b



a

సత్తుల్లిజీతియాగం వార్తల్లి జీల్లి
ముద్దిల్లి ల్లిశ్రాతి సత్తల్లి ల్లి నీత్తి త్తి

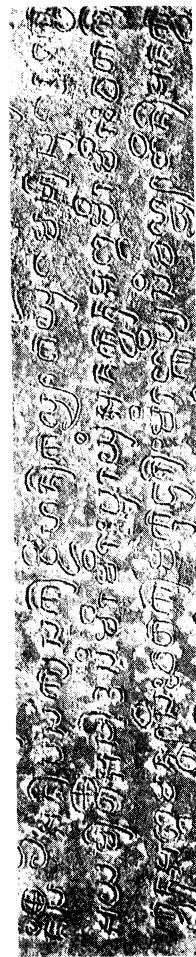
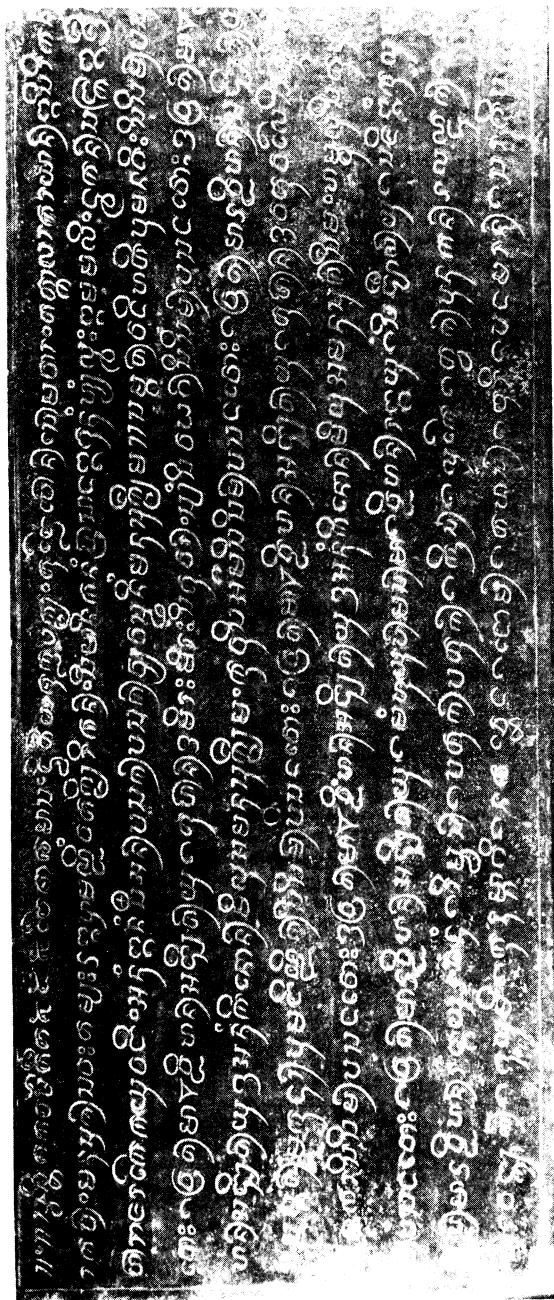
b

చుయ్యబక్కట్టార్కయ్యిష్ట్రీచెంపి (చుయ్యబక్కట్టార్కయ్యిష్ట్రీచెంపి)
ఉసణ్ణాయి (ఉసణ్ణాయి) ఉసయోగ్యుడు కృయగాణి (ప్రక్కణ్ణయ్యిచ్చెయ్యిష్ట్రీ
చెంపి) పాకణ్ణాయి (పాకణ్ణాయి) బుగ్గాని గ్రామాపిట్టార్కయ్యిష్ట్రీ అ
ధావగ్రామాపిట్టార్కయ్యిష్ట్రీ అయ్యాపిట్టార్కయ్యిష్ట్రీ అ బిత్తాటాపిట్టార్కయ్యిష్ట్రీ
ప్రభు పాల్యగా నృణాణ్ణాయి పిట్టార్కయ్యిష్ట్రీ గ్రామాపిట్టార్కయ్యిష్ట్రీ

c

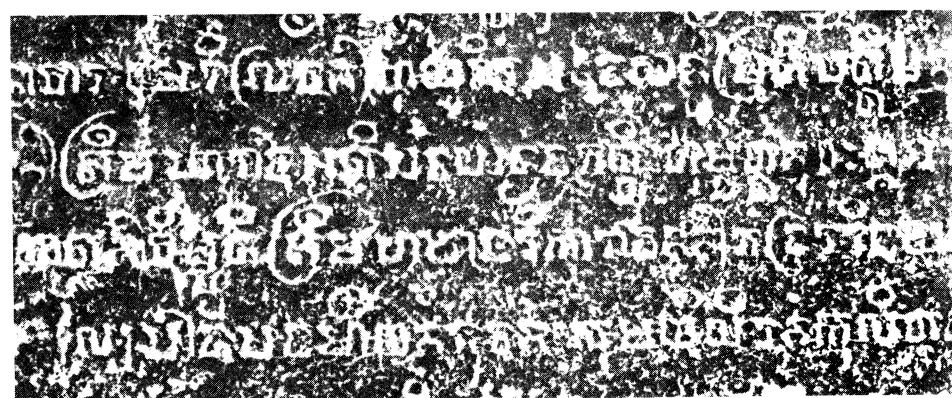
కృంగ్రేశితమ్మయాక్కిల్లి గ్రామాపిట్టార్కయ్యిష్ట్రీ గ్రామాపిట్టార్కయ్యిష్ట్రీ
క్రిగ్గుర్లంట్టిగింత్చగాని గ్రామాపిట్టార్కయ్యిష్ట్రీ గ్రామాపిట్టార్కయ్యిష్ట్రీ
గ్రామాపిట్టార్కయ్యిష్ట్రీ అ ద్వాగ్గి ల్లో రిస్సి ల్లో
క్రింత్చు ర్హితి అచ్చు అయిట్టార్కయ్యిష్ట్రీ గ్రామాపిట్టార్కయ్యిష్ట్రీ

d

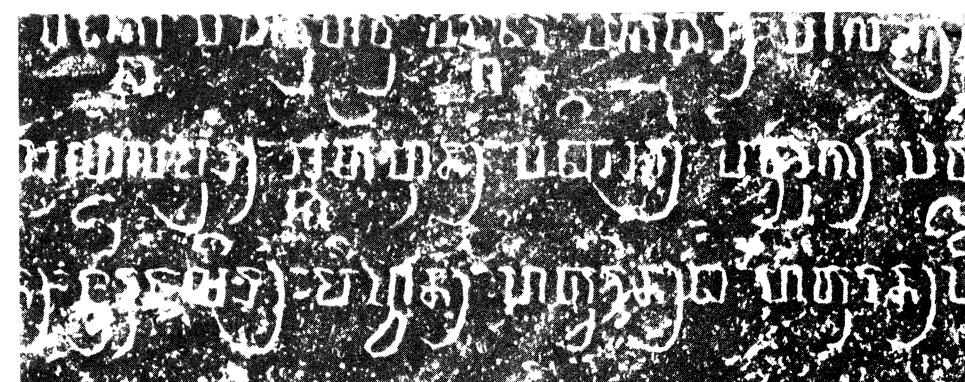




a



b

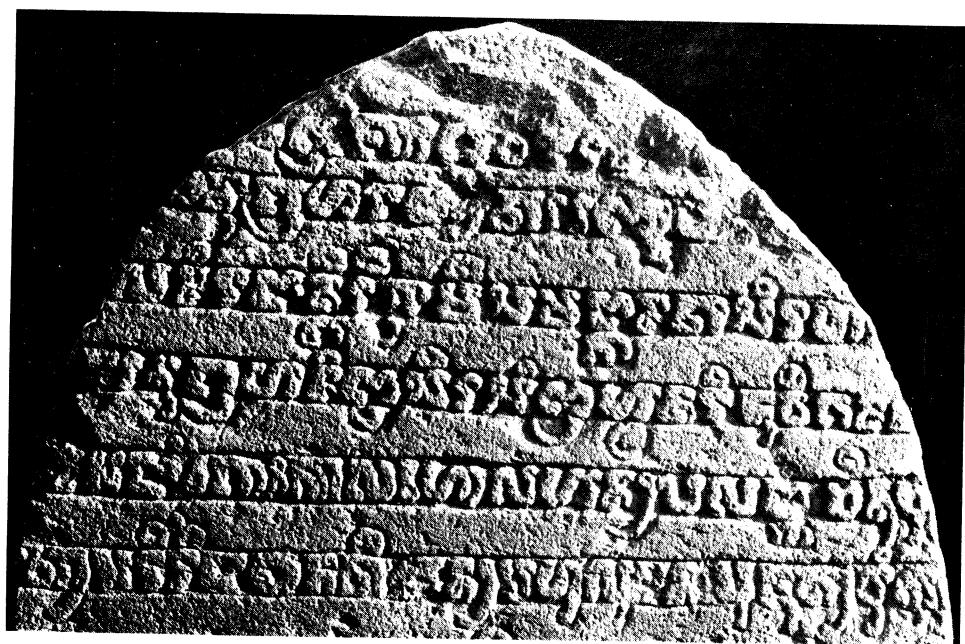


c

PLATE VI



a



b

ପାତ୍ରକାଳୀନ ମହାଦେଶରେ ଯାତ୍ରାକାରୀ ଏବଂ ପାତ୍ରକାଳୀନ ମହାଦେଶରେ ଯାତ୍ରାକାରୀ

କରିବାରେ ପରିମାଣ କରିବାରେ ଏହାରେ ଏହାରେ ଏହାରେ

ପାଦମୁଖ କିମ୍ବା ପାଦମୁଖ କିମ୍ବା ପାଦମୁଖ କିମ୍ବା ପାଦମୁଖ

३५४ द्वितीय अध्याय
प्राचीन भारतीय संस्कृत का अध्ययन

PLATE VIII

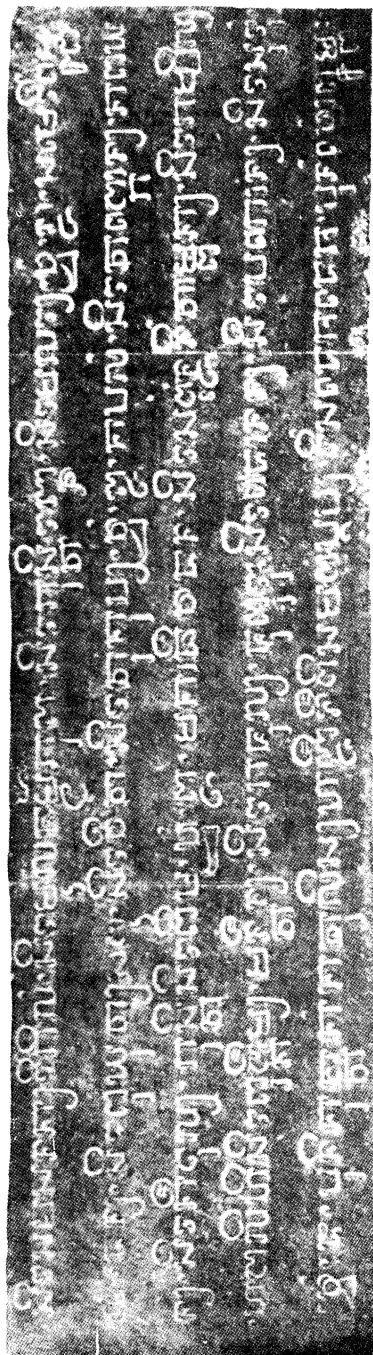
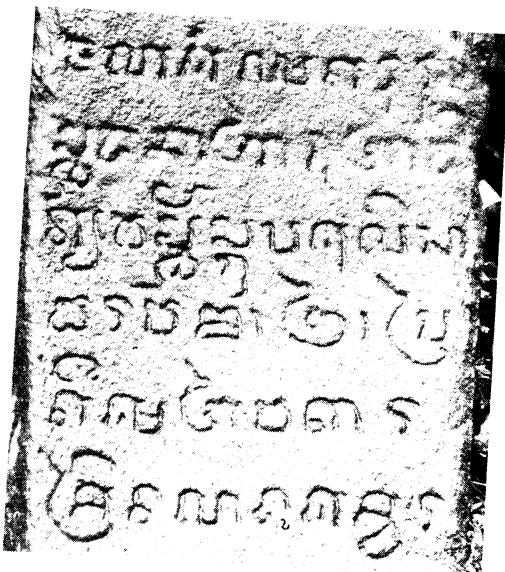


PLATE IX



a



b

PLATE X

