JEFFREY ROGER SUNDBERG

Considerations on the dating of the Barabudur stūpa

Introduction to the problem

Given¹ its prominence as one of the largest and certainly the most elaborately decorated Buddhist stūpas in the world, it is regrettable that a foundation inscription giving a firm date, name, or patron for the Barabudur monument has never been found.² In the absence of a foundation inscription, a number of scholars have proposed and examined a variety of dating indicators. This article assesses past efforts to attempt a dating of the Barabudur monument, and offers a new hypothesis on the dating and founder.

Thanks to the fruitful efforts in the 1950s of two great epigraphers, De Casparis and Damais, some of the facts of Javanese chronology were solidly established. Damais (1952) succeeded in deciphering the numeral system, reconstructing the Javanese calendrical system and precisely dating Javanese inscriptions. De Casparis (1950, 1956, 1958), besides reading a number of important inscriptions for the first time, was able to establish a relatively tight dating for the Plaosan and Prambanan temples. Because the Barabudur dating theories of pre-Independence scholars of Javanese archaeology were formulated on such chronologically shaky evidence that their opinions seem more like speculations, I will neglect them, focusing instead on post-Damais scholarship on the dating of the monument.

¹ I wish to dedicate this essay to Father W.J. van der Meulen, a scholar whose writings attempted to reunite classical Java with its traces on the modern island. I want to thank Riboet Darmosoetropo, Roy Jordaen, Hudaya Kandahjaya, Mark Long, Tjahjono Prasodjo, Iain Sinclair, Ninie Soesanti, Caesar Voûte, and Hiram Woodward for assistance or consultation, and as well the two anonymous reviewers for their attention to the early drafts of this manuscript.

² The precedents of the Abhayagirivihāra and Plaosan inscriptions suggest that if such a Barabudur foundation inscription still exists, it will likely be unearthed just outside the eastern main entrance to the monument or outside the remnants of its main eastern wall.

JEFFREY ROGER SUNDBERG works as an engineer in the geophysical exploration equipment industry. He is a candidate for a degree in the department of Mining, Geological, and Geophysical Engineering at the University of Arizona, where his thesis will concern electromagnetic and acoustic energy emissions during the fracture of brittle material. His address is: 2601 W. Broadway Blvd, Tucson, AZ 86745-1787, USA. E-mail: sundberg@email.arizona.edu.

In the course of this article, I cursorily examine the merits of 1. the specific art-historical dating of the *dvārapāla* statue found not far from Barabudur, 2. more general art-historical observations about the details of the mouldings and the ornamentation of the monument, 3. attempts to date the monument based on religious considerations, 4. attempts to date the monument using architectural synchronizations with other, better dated monuments, and 5. considerations of the palaeography of the short inscriptions on the Barabudur's hidden foot. The purpose here is to evaluate the present arguments and point out those that have been improperly or mistakenly formulated. At the end of this analysis we will see that the palaeographic considerations are likely to be of the greatest value in assigning a date to Barabudur. The valid evidence in all its forms seemingly converges to suggest dates for the monument in the first few decades of the ninth century.³ I conclude by proposing that Barabudur's royal patron was *Śrī Mahārāja Rakai Warak dyaḥ Manāra*, known to have reigned from AD 803 to 827.

The dvārapāla of the nearby hill as a chronological index

The first dating method to be examined is the attempt by Van Lohuizen-de Leeuw (1981), who proposed a date for the foundation of the monument through her study of the *dvārapāla* guardian found on top of the Dagi hill 600 metres to the northwest of Barabudur.⁴ Van Lohuizen-de Leeuw (1981:17-8) argued that the *dvārapāla* was stylistically simpler than the five sets of *dvārapāla* recovered from the Buddhist temples around Prambanan and therefore must predate them. Besides arguing on stylistic grounds that the *dvārapāla* was the first in the chronological sequence, she also argued that the *dvārapāla* must belong to a pre-existing monastery, which had to have been there to provide monks for the foundation ceremonies of the temple. 'Consequently the *dvārapāla*, which almost certainly belonged to the

³ The dating effort is made somewhat problematic because the monument's construction seems to have occurred in several stages, the first interrupted by a shattering earthquake and at least one more constituting a substantial change in the original plan (Dumarçay 1977, 1978, 1986, 1993). Some might question whether the discontinuities in the building plan necessitated substantial discontinuities in the construction effort. I myself do not believe that the monument lay abandoned and unfinished for any length of time: it is my general understanding of construction projects that skilled work crews of the size necessary to complete a monument of Barabudur's size could not simply be dismissed if the work ground to a halt and then easily reconstituted after a new plan had been devised. Whatever the character of the work's progression, I do not think that the stages evident in its construction alter the basic dates proposed in the conclusion of this paper.

⁴ The reader is referred to Van Bommel 1994 for a general study of the *dvārapāla* in Indonesia. The *dvārapāla* is now to be found in the National Museum in Thailand.

monastery of Barabudur, must be earlier than the monument itself' (Van Lohuizen-de Leeuw 1981:21) and somewhat earlier than the monastery at Kalasan, which also had *dvārapāla*. Van Lohuizen-de Leeuw (1981:16) cited the fact that 'building remains have actually been discovered on top of this hill' to buttress her argument that a monastery stood there. Given a date of 778 for Kalasan, Van Lohuizen-de Leeuw (1981:21) dated the foundation of Barabudur to AD 770.

Whereas Van Lohuizen-de Leeuw's statements lead us to expect some hope of finding the remains of a monastic settlement on the nearby hill, research into the sources she cites shows scant evidence of anything on the hill nearby. The 1905-1906 ROC report cited by Van Lohuizen-de Leeuw reads: 'An experimental excavation was decided upon on the other hill slightly to the northwest, a twin hill which so much resembles the Barabudur hill. [...] The results of the investigations on this twin hill, from which one has a splendid view of the surroundings, were negative. On neither side of the hill was anything found to warrant a continuation of the research. The old, hard layer of the foundation ground was soon struck. One therefore has to conclude that the small buildings, consisting of red brick, that at the time had indeed stood on that hill (as well as at a short distance a small "rakshasa" of andesite), would have been of little importance and without even limited foundations.'⁵

Despite this paucity of archaeological material, the northwest hilltop location may indeed have been the original location for the extant Barabudur *dvārapāla* (it is difficult for me to believe that people dragged a huge statue up that hill just for the challenge and the exercise). There are grounds for believing that the *dvārapāla* found 600 metres to the northwest was matched by another guardian statue about 450 metres to the southwest of Barabudur, where the village bears the conspicuous name of Gopalan (surely derived from the Sanskrit *Gopāla*, which Edgerton (1953, II:217) notes as the name of a *yakṣa*), the same term which Crawford (1967, II:28) was given when he saw the *dvārapāla* specimens at Kalasan in the 1810s. The existence of the temple

⁵ I am indebted for this quotation to Roy Jordaan, who consulted the 1905-06 ROC reports at the Kern Library in Leiden. Jordaan notes that the report (Driemaandelijksch Rapport Commissie etc., pp. 1-5) was signed by Knebel and Melville. This information is supplemented in a personal communication by Caesar Voûte, the former coordinator of the UNESCO Consultative Committee for the Borobudur Restoration Project, who wrote: 'When I was working at Borobudur in the years 1971-1975 we and the Indonesian archaeologists did some exploratory research on that hill, including some reconnaissance digging, but nothing was found in terms of ancient remains.' Despite this, one of the referees of this article pointed out that 'the standard tone of the OV and ROD reports was always rather condescending in cases where remains were less than spectacular. The reference to small brick buildings which "had indeed stood on that hill" shows that there were remains of brick structures there; such remains would not have impressed the antiquarians of the early twentieth century.'

Photo 1. The Dagi hill to the northwest of Barabudur. Home to the only guardian *dvarapala* statue recovered from the area, the Dagi hill's flat top is seemingly the result of its having been used as the source of the fill which bulked up the natural hill under Barabudur. Photo courtesy of Mark Long.

guardians might give us some indication of the area of the original Barabudur temple grounds, which are approximated in extent by recent archaeological discoveries of the ancient moat surrounding the Plaosan complex.⁶

The question of the *dvārapāla*'s age relative to the monument is made clear by considerations of the Dagi hill upon which it was perched. It is almost impossible for the statue to have been placed before the monument was constructed, because the Dagi hill was obviously flattened and seems to have served as the source for the substantial infill material used to bulk up the hill-ock upon which the Barabudur stūpa was built (*Restoration* 2006:92).

Van Lohuizen-de Leeuw is correct in saying that the Barabudur *dvārapāla* is distinguished from the others on the Prambanan plains by its simplicity and human-like features. The Keḍu *dvārapāla* certainly looks tamer, more genteel, and more human than some of the ogreish giants who guarded the other locations on the Prambanan plains (As early and artistically untutored a visitor as Mackenzie (1814:31) was led to distinguish between the guardian statues of Sewu and those near the Kalasan temple, the latter 'very much resembling those in which the Persian Monarchs and figures are represented in the Persepolitan antiquities. These figures looked more European with aquiline nose, and more regular features, than the Negro-staring visages of the Northern Temple.') Nevertheless, we may question her assumption that the idea of ornamentation of the *dvārapāla* required a very long period of evolution and refinement, as though its fangs and face were an engineering feat such as an airplane or a semiconductor which required successive iterations of design improvement to achieve a sufficiently threatening look. This assumption of a scheme of progressive changes and refinements does not allow the possibility of a deliberate choice. To my mind, there are better reasons for the relative simplicity and friendliness of the *dvārapāla* figure. It may simply have been produced under the stimulus of an overseer, influential during the hiatus between the two confirmed spurts of Buddhist temple building around 780 and again around 830 on the Prambanan plains, who preferred this aesthetic. It may be that the *dvārapāla* were designed with the distinctive doctrinal character of the monument in mind.⁷ This latter consideration is made more probable by the finding of a contemporary Buddhist mantra whose meaning is associated with fierce yogatantric deities

⁶ I wish to thank Tjahjono Prasodjo and Roy Jordaan for informing me of these discoveries. Jordaan writes that the Plaosan moat measures around 450 x 300 metres. The Plaosan moat is especially significant in light of the suggestions of Dumarçay (2003:24), who proposed the existence of a canal feeding the north side of the Barabudur monument from the Kali Silang.

⁷ Several recent substantive studies of the stūpa have been written: Kandahjaya 2004; Voûte 2006; Voûte and Long 2006. As well, mention of the stūpa is made in Sundberg 2004:118-9 and Woodward 2004:342-5. A bibliographic survey of more recent contributions is to be found in Woodward 1999:40-2.

(Sundberg 2003); those monuments dedicated to a 'wrathful' Buddhist deity may have had correspondingly fiercer guardian statues. Finally, it is instructive to note that successive pairs of the 'Caucasian' *dvārapāla* of Kalasan front what might be taken as a monastery (see the description of Crawford 1967, II:28), but the 'Negroid' *dvārapāla* of Sewu, Plaosan, and Sajiwan fronted temples. On this basis, I would be inclined to assign the friendly Barabudur *dvārapāla* to a *vihāra* if only a mate had been found on the Dagi hill or if the village of Gopalan did not suggest other Barabudur guardians elsewhere.

Art-historical considerations as a dating method

The art-historical method is the application of evolutionary criteria to arbitrary non-structural decorative shapes like ogees, plinths, and corbelling in an attempt to discern the direction and sequence of development of temples. Allow me to preface the discussion of the validity of chronologies based upon art-historical methods by stating that I lack formal training in this discipline but that the principles seem easily grasped. This said, it seems to me that the art-historical method represents an even looser criterion than the nature of the *dvārapāla*, whose artistic character at least had a purpose. One very knowledgeable observer of Central Javanese history was deeply wary of the art-historical method: Damais (1968:504), citing the disproving of Krom's dating for Plaosan by De Casparis's epigraphical research results, admonishes archaeologists to take account of this fact in datings which rely on the use of architectural or decorative details.

In the absence of any explicit epigraphical information about the dating of a temple, the art-historical method is not a poor strategy to use, but substantial margins should be allowed for the relative chronologies it produces. Williams (1981:42), whose essay is tempered by frank and forthright provisos on the limitations of the method, notes that ultimately the decorative architectural details represent the 'design fashions realized by human choice'. The art-historical method indisputably requires epigraphical results for general chronological orientations; as Williams (1981:37) notes, the short inscriptions of Plaosan represent 'our first relatively secure date for some time'.

Based substantially upon art-historical considerations, Williams's chart (1981:39) places Barabudur's first stage from 795 until 855. Soekmono (1972:466-7) writes: 'applying our newly-established standard for dating, whereby the molding of the base as well as of the start of the walls proves to be of great significance, it turns out that the original, hidden, foot of Candi Borobudur displays a beautifully-shaped ogee and a fully developed rounded cornice. Subsequently the classical Central Javanese profile is perfectly demonstrated.' On these grounds, Soekmono (1972:467) concludes

that the monument belongs to the later Śailendra period of 800-860 and was begun after 800. Chihara (1996:112) suggests that Barabudur was begun around 790 and finished around 840, though his analysis seems based more upon the architectural observations of Dumarçay and the epigraphical analysis of De Casparis than on any truly art-historical methodology. The validity of these dates will be examined in a later section.

One curiosity that stands out from an examination of the art-historical findings is the discrepancy between the epigraphical record associated with the Dieng temples and the general consensus of architectural historians of ancient Central Java. It is something of an intuitive article of faith that the Javanese temples started small, allegedly localized in the high-altitude crater of Mount Perahu on a plateau which has retained its ancient name as the 'Āi-hyang', as well as the 'Gedong Songo' group scattered on the slopes of Mount Ungaran. This view holds that the Javanese taught themselves the rudiments of lithic temple architecture by experimenting with small-scale temples sometime in the first half of the eighth century,⁸ during a time when their royal allegiances were to Śaivism, then made the sudden move to the mammoth lowland Buddhist temple dedicated to Mañjuśrī in the period around 780. In terms of actual evidence available to us to help date these Dieng monuments, we have a corpus of inscriptions recovered from the plateau which begins only in 854⁹ with the Hanasima inscription. The single piece of evidence which suggests an earlier date is a short metal inscription written in an allegedly Pallava script around 650 (Chihara 1996:106-7). Nobody has seen this inscription for many years, and I cannot determine whether it was even photographed or facsimiled so that its palaeographic characteristics may be documented. Really, much more archaeological research on the Dieng temple complex must be done before we can better characterize its periodization and function. Pending a better understanding,

⁸ Soekmono (1979:471-2) seems to consider that all the Dieng temples were erected before 750. Williams's chart (1981:39) places the Dieng temples between 730 and 765. Chihara (1996:112) puts the Dieng temples between 680 and 780, dates he derives from considerations that the temples 'had completely lost all vestiges of timber-building techniques' that had distinguished the Pallava temples that Chihara believed to be the prototypes of Dieng (Chihara 1996:110).

⁹ Readers who consult Sarkar (1972, I:49-52) may notice a Dieng inscription which is dated 809. This is an error, as consultation with the dating work of Damais 1952 will confirm. The true date is 854 and thus during the reign of the *Raka* of Pikatan. There is one other very grand and elaborate Dieng inscription, never yet described in the epigraphic literature, which is at present lying on its back on the floor of the Dieng museum. I have examined the first seven lines of the inscription and have determined the inscription to date from 869, although a lack of light and time – the Dieng mists were thick that day – did not allow for a reading of the rest of this often faded inscription. It is hoped that a fuller transcription of this inscription is among the epigraphical material promised by De Casparis in his never-published *Prasasti Indonesia 3* (See De Casparis 1950:130, 1956:336 note 36) and may perhaps be recovered from his papers in the Kern Institute.

we must acknowledge the awkward divergence between epigraphical results and art-historical understandings.

In summary, art-historical methods have generated conclusions which generally place the foundation of Barabudur just before the turn of the ninth century and its demise around the middle of that same century. As we shall see, these conclusions are in rough accord with those reached by other means.

Chronological implications of the religious character of the Barabudur monument

The ideological provenance of Barabudur has long been a bone of contention ever since Stutterheim (1933) employed ideas from the Javanese tantric manual *Sang Hyang Kamahāyānikan* (the extant copies of which date to an early tenth-century royal patron but which mostly likely were composed substantially earlier) to propose an interpretation of the monument. De Casparis (1981:50) argued against Stutterheim, rejecting his tantric interpretations of Barabudur on the grounds of its poor concordance with the requirements of a tantric maṇḍala, in particular the lack of goddess-consorts for the Buddhas and the lack of *vajra* imagery on the monument. Klokke (1996) elaborates these arguments against a tantric interpretation of the monument and extends them into an implicit argument about the dating of Barabudur, which she believes to have been constructed before the advent of Buddhist tantrism in Java, an event which she dates to the mid-ninth century on the basis of art-historical evidence and what she considers to be a 'change in religious practice from an emphasis on the accumulation of merit by building temples and worshipping Buddhas and Bodhisattvas to an emphasis on individual salvation by means of Tantric practices which involved meditation' (Klokke 1996:201). This alleged lapse of Javanese Buddhists into the private rites of tantric ritual is posited as the reason for the cessation of Buddhist temple building in Java after the mid-ninth century.

It is clear that De Casparis's and Klokke's arguments stand substantially in error on both the date of the advent of the Buddhist tantra to Java, as well as the awareness of the *vajrayāna* by the builders of Barabudur. There are explicit references to the Javanese esoteric Buddhist monk named Bianhong which place Buddhist tantras in Java before 780 (I have argued in Sundberg 2004 that the yoga class of tantras were extensively known in circles close to the Śailendra court by 792 at the latest), actual depictions of *vajra* temples on Barabudur itself, as well as the clear epigraphical and ritual remains of ninth-century tantrist practitioners found just outside Barabudur.

Perhaps the most valuable indication of the state of the Buddhist religion in early Śailendra Java is from an extract of the Japanese Buddhist

monk Kūkai's *Himitsu-mandara-fuhō-den* (Dharma transmission of the secret mandalas). Kūkai mentions the Javanese *Vajrayāna* master Bianhong,¹⁰ with whom he shared discipleship under the Chinese master Huiguo when they studied the tantras in China. Kūkai recorded the essence of Bianhong's story (Iwamoto 1981:85), noting that Bianhong was already acquainted with the rudiments of the secret doctrine of esoteric Buddhism while still in Java, but wished to know more about the teachings. He initially set out for South India but then heard that the Tang court monk Amoghavajra had already brought the esoteric teachings to the imperial capital in China. Bianhong arrived in China in 780 and was later consecrated by Amoghavajra's disciple Huiguo as a qualified master of the Garbhadhātu tradition. The case of Bianhong makes it explicit that *caryā* and yoga tantras were known in Javanese Buddhist circles before any date that could reasonably be assigned to Barabudur.

Furthermore, a thorough examination of the chiseled reliefs of Barabudur turns up at least two instances of the *vajra* used as an indisputably Buddhist tantric emblem. The two confirmed instances are found on the second gallery as finials to Buddhist temples, where they join other reliefs depicting temples topped with various Buddhist symbols such as the lotus.¹¹ These reliefs are to be found at gallery 1a15 and at gallery 1b81.

In addition to this, the lead-bronze tantric *dhāraṇī* (Boechari 1976:92, 94), unearthed a few metres west of Barabudur and bearing palaeographic signs of being produced at least by the mid-ninth century,¹² provides clear evidence that practitioners of Buddhist yoga tantrism were active during the monument's heyday. The inscriptional evidence is buttressed by other archaeological findings, such as the bronze *vajra* in the excavations to the immediate northwest of the monument.

¹⁰ Hudaya Kandahjaya's dissertation on Barabudur examines four independent references to the Javanese monk Bianhong; for this, see Kandahjaya 2004:65, 94, 96, 108. Bianhong is the subject of a forthcoming study by Iain Sinclair.

¹¹ Fontein (1967:149-51) makes a well-considered case that the sculptors of the Barabudur reliefs were given broad outlines as to what the panel would depict, but filled out the details of the backgrounds of the panels using their 'iconographical vocabulary' of banners, garlands, and magic trees. To me, it is difficult to conceive that the Barabudur sculptors would have enough knowledge about esoteric Buddhist symbols to affix *vajra* as the finials of Buddhist temples and could achieve sufficient differentiation of the depicted temples with the variety of finials depicted. Think of the Borobudur-themed crafts available to the modern tourist, which consist largely of monotonous imitations of the Borobudur ship and little else. For this reason, I suspect that a Buddhist monk may have given briefings on the types of Buddhist symbolism to attach to the finials.

¹² No photograph or facsimile has yet been publicly offered for these enormously important lead-bronze plates, so the paleographic dating and even the accuracy of the transliteration cannot be confirmed.

Reliefs at gallery 1a15 and gallery 1b81

Because contemporary Buddhist tantrism was known to the Javanese and in fact depicted on the Barabudur murals,¹³ arguments about the monument's earliness are invalidated, although any effort to assign a tantric provenance to the monument will certainly require a skilful exposition – the very sound arguments by De Casparis, Klokke, and Snellgrove (1996) against the interpretation of Barabudur as an explicit implementation of a maṇḍala of the primary *vajrayāna* texts still must be overcome.

Architectural synchronization with other Buddhist monuments

Perhaps the most sophisticated attempt to develop the approximate chronology of the Javanese temples, including Barabudur, involves examination of their architectural history, in particular the technical methods used by the Javanese work masters to join stone and to engineer structurally large and enduring stone monuments.

¹³ Fontein 1967:156 notes: 'The two series on the balustrade of the first gallery – together exactly 500 reliefs – were added only after the original base had been covered'. Given that the *vajra* finials are found chiseled only there, if a tantric ideology inspired Barabudur's final design, it may have done explicitly starting only in the second construction phase.

The foremost observer of Javanese architectural history is Jacques Dumarçay, with a copious number of books and articles dealing with various aspects of Javanese archaeology, including valuable monographs devoted to the temples of Barabudur (1977) and Candi Sewu (1981) as well as the architectural history of Java as a whole (1993). Dumarçay's observations were made possible by his status as special adviser to the Badan Pemugaran Candi Borobudur, so he was able to make direct and detailed examinations of the portions of the monument that were being dismantled. His generally careful appraisals of the construction techniques varying from temple to temple or even within sections of the larger temples have turned up sequences of techniques that are for the most part timeless. The evidential basis for the five phases of Barabudur construction Dumarçay discerns¹⁴ will not be examined in great technical detail here as they are mostly logically incontrovertible, complicated to examine, and irrelevant to the purpose of this essay.¹⁵

What I examine here is Dumarçay's efforts to periodize the Barabudur monument by relating the undated Buddhist architecture of the Keḍu plains to the chronologically better documented architecture around Prambanan. In doing so, Dumarçay seeks direct architectural corollaries to the five stages of Barabudur's construction; employs an epigraphical datum which seems to document a specific modification of the architecture at Candi Sewu in 792; and attempts a general correlation with his understanding of Javanese political history. On this last point, Dumarçay relies upon a De Casparis-derived vision of competing dynasties, the Buddhist Śailendra and the Śaivite Sañjayas. We will see that Dumarçay's chronology was wrong-footed by a false datum reported about the inscription of Mañjuśrīgṛha, causing Dumarçay to misalign the construction of Barabudur to make the refashioning of its gates accord with the parallel refashioning of Sewu's doors, an event which he was led to believe occurred in 792. Furthermore, construction techniques which Dumarçay believed to be unique to the Buddhist Śailendra were also certainly known and shared by the Buddhists among the 'Sañjaya' (if there was indeed a distinction to be drawn between the Śailendra kings and the well-chronicled line of kings capped by the dynast Śrī Sañjaya).

¹⁴ The reader will find that the presentations of the evidence in the English editions of Dumarçay's short books (1978, 1991) on Borobudur do not contain a great deal of technical justification for the five stages of construction that he has discerned; they thus seem somewhat arbitrary. The discussion of the evidence in his original French monograph (Dumarçay 1977) is much better documented and therefore more compelling, although the distinction between the fourth and fifth stages seems to me vague.

¹⁵ There are several obvious demarcations of building phases, such as when the building collapsed and when structures were built to cover other structures. The rest of the evidence lies mainly in the reprise of the gates and the landings.

To muddy the architectural waters before examining Dumarçay's chronology of the five construction stages, let us examine comparative evidence about the uniformity of the construction methods used to build other Javanese Buddhist temples. For instance, take the smaller shrines ringing Candi Sewu. Dumarçay (1981:5) notes that 'the edifices comprising Candi Sewu were built with very varied techniques in simultaneous use: four methods of joining stone, three shapes of roofing, five types of doors, and many styles of sculpture interpreting the same motif. The procedures are distinguishable because the work comprised the repetition of 240 shrines of the same form.' Even within a single edifice such as the central temple at Candi Lumbung a variety of techniques was used; Dumarçay (1981:35) found that it was built 'without particular care; the methods could vary from one course to another. Thus, the stones constituting the fourth course of the central sanctuary were joined to one another by double-dovetailed tenons, whereas the blocks of the fifth and sixth courses are joined by structurally independent tenons.' While I lack concrete data on the length of time necessary to place a layer of a mid-sized temple such as Lumbung, I cannot imagine a period of more than a few weeks if a supply of the necessary rough stone blocks were at hand in the stone-cutter's workshop. I also imagine that the original builders would pay much more careful attention to the methods of joining stone on vertical free-standing structures like Lumbung and especially Sewu, as intuitively the walls of these tall monuments are susceptible to mechanical torques. In contrast, the stubby, fill-backed walls of Barabudur might not have merited especially serious structural stone-joining, at least not until the experience of the catastrophic collapse which caused the scrapping of much of the walls. In any case, a good argument may be made that the Javanese architectural evidence does not allow us to assign too great a chronological value to the techniques of construction used at a particular temple.

Beyond these considerations, Dumarçay's attempts to piece together the fragments and assign a chronology, a relatively specific dating, to specific components of Javanese architectural history are weakened by reliance upon faulty considerations. These considerations are derived from Boechari's incorrect reading of the Mañjuśrīgṛha inscription as well as troublesome conclusions taken from De Casparis's work on Śailendra-era Java, considerations which were probably untenable even before being formally disproven by the 1983 discovery of solid Javanese royal chronology presented in the Wanua Tengah III inscription. I examine each of these topics in turn.

The Mañjuśrīgṛha inscription and the alleged renovation of Candi Sewu

Foundation inscriptions remain for the inner brick temple at Kālasan (AD 778), a temple to Mañjuśrī (782, found in the inscription of Kēlurak) which is either Candi Lumbung, Candi Bubrah, or Candi Sewu, the inauguration of

the Abhayagirivihāra (792), and quite possibly for Candi Plaosan¹⁶ as well. To this we must add another stone from 792, this one known as Mañjuśrīgrha, found at the western periphery of the Candi Sewu temple complex. This latter inscription, one of the most important in the corpus for its implications for our knowledge of politics and religion in late eighth-century Śailendra Java, spent 32 years since its 1960 discovery in a state of very incomplete description, the content of this inscription being alluded to, or parceled out in dribs and drabs, by a close circle of archaeologists with access to the original transcription by Boechari. The single most important question concerning the inscription, one of the three items of significance that trickled out to the broader scholarly world besides the name of the temple and the date of the inscription,¹⁷ is this: what exactly was done to the Abode of Mañjuśrī on 2 November 792, and why was it important enough to record in an inscription?

¹⁶ One of the most tantalizing pieces of epigraphical information of the highest importance for the history of Java is Boechari's (1976:18, note 13) announcement that a new portion of the Plaosan inscription had been found immediately in front of the main temple. To my mind, this fragment of the Plaosan inscription is one of the most crucial pieces of evidence which might be developed about Central Javanese dynastic relations – the *mahārāja* who sponsored the shrines at Plaosan Lor is clearly King Garung, who reigned from 829 to 847 (Garung's successor Pikatan contributed two stūpas at some time before his ascension to the throne in 847), but what is the relationship between the king who built the later shrines and the patron of the original edifice which lay inside the northernmost of the Plaosan temples (Dumarçay 1986:50)? Given the proximity to other Śailendra edifices on the Prambanan plains, the smaller temple originally built at Plaosan must almost certainly have been a Śailendra construction. (This original Śailendra sponsorship is possibly made explicit by De Casparis's readings of the inscription. Damais 1968:359 notes that De Casparis's preliminary treatment of the Plaosan inscription in 1950 reports the reading of *śailendraṃ varanarādhirājarājanī* on line 23, while this same line is no longer reported to be *śailendra* in 1956, where De Casparis's transliteration begins with *asmān* = *raṣa* but maintains his former reading from *varanara* on.) This is the crux of the historical matter relating this strange appearance of King Garung's shrines on a locale original and sacred to the Śailendra kings: either Garung was himself a Śailendra king or else supplanted one in an unexpectedly respectful manner, going to the effort of greatly enlarging and embellishing a modest old Śailendra temple. In any case, if we are ever to have a firm date for one of the stages of the Plaosan temple, it must be within these newly found inscription fragments. Having this information will increase our ability to confirm or refute the notion, important for Dumarçay's work, about whether or not there was a fundamental change of power in the period around 829.

I might add that I sought the newer Plaosan fragments while in Java, but they seem to have tragically disappeared without a trace, the second Śailendra inscription to go missing. (For the first, see the fuller account in Sundberg forthcoming.) I am indebted to the one individual still alive who examined the inscription with Boechari, Prof. Riboet Darmosoetropo, who mentioned to me that the fragments were very hard to read. Boechari's notes on this inscription also seem to have disappeared (personal communication with Ninie Soesanti).

¹⁷ This unfortunate situation persisted until the extensively documented 1992 report of the Indonesian Department of Antiquities on its reconstruction of Candi Sewu, which helpfully published in its appendices two complete transcriptions of the inscription, the first by Boechari (1992:94) and a second slightly different transcription by Kusen (1992:95).

Among the fragments of information that came out was the report that the inscription concerned the expansion or enlargement (a translation suggested by Boechari's reports of the finding of the Sanskrit term *vrddhi*' as the main verb of the first sentence) of Candi Sewu by a certain 'Dang Nayaka di Randu Luwarang'. It is truly a shame that the undocumented and uncorroborated bits and pieces asserting an expansion which dribbled out in the last 34 years have developed such a head of steam, for they are based on a manifestly incorrect reading by Boechari. I can state flatly that the much-reported reading of '*mavṛddhi*' by Boechari¹⁸ is clearly impossible after even cursory examination of the stone. In order not to bore the reader with specialist details about the inscription, further details on my observations may be found in the appendix, where I show that the true reading of the main verb is almost certainly *madṛṣṭi* (which must mean either 'saw' or 'visualized') and examine its implications.

Figure 1. A hand-drawn facsimile of the end of line 2 of the Mañjuśrīgṛha inscription. The author's preferred reading is <obliterated>
lurapaṇi nāmaṇḍa madṛṣṭi diṇ

In summary, the inscription of Mañjuśrīgṛha does not, despite various frequently propagated and often-cited claims to the contrary, document the expansion or renovation of the Candi Sewu temple. The inscription may imply the completion of the Sewu temple; its find-spot on the far western periphery of the Sewu temple yard certainly allows a terminal date to be assigned to the erection of these shrine structures. Even if Dumarçay is correct in surmising a relationship between the reprisal of doors at Candi Sewu and gates at Barabudur, it is unknown when they happened; we are unfortunately still adrift when it comes to establishing a dating for the renovations and alterations of the older Buddhist temples on the Prambanan plains, although they are likely to have occurred before the widespread adoption

¹⁸ The reading was seconded by Kusen (1992:95) in his transcription. The published transcription of Boechari should be considered the more accurate, but still contains errors. Consultation of Boechari's original notes, now in the possession of Ninie Soesanti of Universitas Indonesia, shows that Boechari probably did an open-air reading of the stone *in situ* in the yard of Candi Sewu: the lighting may not have been optimal. I am indebted to Soesanti for her informative assistance in this matter.

of the rubble-filled wall technique seemingly first used at Candi Plaosan around 830.¹⁹

An alleged revival of a Hindu dynasty around 830

The second of the dates on which Dumarçay hangs his Javanese archaeological chronology is 830. Dumarçay obtained this date from his acceptance of De Casparis's well-known and widely adopted hypothesis that around 832 a native 'Sañjaya' dynasty, whom he asserted to be Hindus and assisted by a tribe of Śaivite Malay warriors, prevailed over the power of the Buddhist Śailendras. De Casparis felt emboldened in formulating his 1950 hypothesis on the basis of five epigraphical studies, all of which he, to his great and everlasting credit, developed himself. First, he intensively read the 824 inscription of Kayumwungan, the last known Śailendra inscription, issued in Sanskrit by a daughter of the Śailendra king Samaratuṅga with an appendix in Old Javanese by a *Raka* of Patapān who provided the *sīma* lands for the Buddhist temples she established. Second, he analysed an Old Malay boulder-inscription, dedicated to Śiva and seemingly issued by the same *Raka* of Patapān. This inscription is undated, but De Casparis imputed to it a strangely camouflaged *candrasengkala*²⁰ which he decoded as the year 832. Third, he developed a pair of inscriptions, one an abridged copy of the other, which documented the 842 provision of funds for an apparently Buddhist edifice by a personage known as Śrī Kahulunnan. Fourth, De Casparis found that the 850 foundation stone of a minor *raka* lord's Śaivite temple on the slopes of Mount Sindoro mentioned the *raka* of Pikatan as being the current regent. Fifth, he found the names of both Śrī Kahulunnan and a king, Śrī Mahārāja the *raka* of Pikatan, among the short inscriptions on the shrines and stūpas surrounding Candi Plaosan. Out of these threads De Casparis wove a very interesting hypothesis: because of a resurgent 'Sañjaya' dynasty, reinvigorated by their association with a tribe of Śaivite Malay warriors, the Buddhist Śailendra king was brought to his knees. The Śailendra princess mentioned in 824 was married off to the *raka* of Pikatan (who was taken to be the Śaivite scion of the 'Sañjaya' line of descent) and assumed the title of Śrī Kahulunnan upon reaching the throne. The Buddhist temple of Plaosan was thus construed as a Hindu Pikatan's grudging token of the union of the dynasties. De Casparis then sought to convince himself and

¹⁹ Of all the construction techniques used in the Central Javanese temples, I believe the available evidence strongly suggests that only the rubble-filled wall technique is datable: it was not used in the early datable temples like Sewu, but appears to be first used at Plaosan. I therefore concur with Dumarçay's dating of this technique to the 830's. It is interesting to note that this technique was used at Barabudur in the final finishing of the portals.

²⁰ Sanskrit *candraśākakāla*. Normally, the presence of such a chronogram, a date encoded in words, is clearly signaled. I am personally inclined to believe the inscription to be undated.

his readers of the identity between Pikatan's predecessor, the *Raka* of Garung, and the *Raka* of Patapān of the Old Malay inscription.

The influence of De Casparis's thinking about his dual-dynasty thesis seems to have taken especial hold of Dumarçay's understanding of the origins of Barabudur's architecture sometime between 1978 and 1981,²¹ for his 1981 publication on Candi Sewu contains the first exposition of Dumarçay's working hypothesis that Barabudur was initially intended by its 'Sañjaya'-lineage founder as a Hindu edifice, but abandoned as the Śailendra wrested control of their lands in the Keḍu. (Concerning Dumarçay's hypothesis for a Sañjaya-Hindu origin for Barabudur, the mistaken date of 792 for the alterations of the monument in its *second* stage seems to have pressured Dumarçay into pushing back the *first* stage into the 770s to make his timeline fit.) Dumarçay (1986:27) then provides a rationale for the resumption of construction of a Hindu monument under a Buddhist Śailendra mantle: 'This huge stone mass could have been abandoned, for it was difficult to adapt to Buddhism. However, leaving in evidence such an obvious manifestation of Hinduism was probably not judged politically prudent, and the work was taken up again adapting as best as possible the [*five-Jina*, my brackets J.R.S.] forms and the iconography already introduced at Candi Sewu.' The construction of the base was not the only role in Barabudur that Dumarçay envisioned for the Sañjaya kings; during the final amendments to the monument they were also held to have refashioned the first-level gates and paving using the same 'filled wall' technique with which they built such temples as Plaosan Lor and Prambanan (Dumarçay 1986:49). There was thus, according to Dumarçay, a Sañjaya sandwich around the Śailendra construction of Barabudur.

Turning to the periodization which Dumarçay assigns to the five construction stages, it constitutes a somewhat puzzling admixture which does not accord well with the historical background that he envisions. The first stage (which he asserts to be Śaivite) made use of stone-wedge techniques 'undoubtedly of Sinhalese origin' (Dumarçay 1993:18-9) which were widely used in all of Central Java's Buddhist monuments but especially at Sewu. The appearance of this technique at Java's *Buddhist* temples is to be expected, as Buddhist channels of transmission would be primary if their origin were Sinhalese. The second stage, undoubtedly undertaken by a Buddhist patron because it encompassed the reliefs of the Buddhist *Karmavibhaṅga* which were later abruptly hidden after the cave-in by the stabilizing ring of stone, included techniques previously used in the Canggal temple built by

²¹ I wish to thank Mark Long for a profitable discussion in which he pointed out that Dumarçay proposed the theory of a Hindu origin for Barabudur in the 1991 second edition of his English-language book on *Borobudur* but that this idea was lacking in the first edition of 1978.

Sañjaya²² on Gunung Wukir six miles away and half a century earlier.²³ By his own architectural accounts, then, Dumarçay has assigned Buddhist building techniques to what he believes to be a Hindu phase of the monument, and building techniques used by Hindus to a clearly Buddhist phase of the monument.²⁴

Given the logical tension surrounding his periodization of the five building stages generated by internal contradictions within and between his works, it is somewhat disappointing that Dumarçay has chosen to so uncritically allow De Casparis's vision of competing Central Javanese dynasties, each subscribing to a different religion and employing allegedly distinguishable building techniques, to colour and inform his architectural analysis of the period 770-830. As early as 1968, the French epigrapher Damais (1968, see especially pp. 336-40) published a meticulously documented and closely reasoned review of all of De Casparis's writings, calling De Casparis's conclusions into substantial doubt. The passage of time and the finding of new Javanese inscriptions (most notably the discovery of the inscription known as the Wanua Tengah III inscription, dating to 908 and found 25 miles north of Barabudur) has further eroded the persuasiveness of De Casparis's 1950 thesis and reduced the utility and necessity of Dumarçay's awkward attempts to accommodate this 'Sañjaya' presence in his Barabudur timeline. While De Casparis (2000:814) tended to minimize the influence of the information contained in the Wanua Tengah III inscription, saying 'these new data have hardly led to a better understanding of the multiple problems of the period', this inscription to the contrary goes surprisingly far in illuminating the generally Buddhist orientation of the early kings of the 'Sañjaya' line. The Wanua Tengah III inscription, for example, discusses the provision of royal fields by *Rakai* Panangkaran (reigned 746-784) for a Buddhist *vihāra* in northern Central Java founded by Sañjaya's brother; the continuation of these fields by *Rakai* Panaraban (reigned 784-803); the retraction of the fields for the *vihāra* by *Rakai* Warak (reigned 803-827); and the 829 rededication of the

²² Soekmono (1972:462) notes that the last fragment of Sañjaya's Canggal inscription was found in 1937 within the courtyard of the temple ruins on the Gunung Wukir bluff, thus ending the debate about whether the inscription could be connected with the temple.

²³ Dumarçay (1981:41, note 3) admits that 'it was through carelessness that we connected Candi Canggal with the first stage of construction at Borobudur; it is of course with the second stage of construction that Canggal must be connected, the technique of mortising the stone parallel to the facing not appearing at Borobudur until the 65th layer'. Dumarçay (1977:59) remarks that this layer was substantially above the remodeling of the wall of the second gallery and thus participated in the second phase of the construction.

²⁴ Dumarçay's opinion may be salvaged if it is admitted that the building masters at Barabudur were seeking more durable stone-joining techniques in the wake of the cave-in which terminated the second stage of construction. They may have noticed that Sañjaya's nearby temples survived the quake which ruined their work at Barabudur, and so adopted the old and venerable stone-joining techniques. This line of thinking is, however, nothing but speculation.

fields for the family monastery by *Rakai* Garung (reigned 829-847). The inclusion of excerpts from Garung's 829 decision has the benefit of naming several of Garung's *mahāmantri*, including one, the *Raka* of Sirikan *pu* Sūryya, whose name reappears as the donor of two of the shrines at Candi Plaosan on the Prambanan Plains (Kusen 1994:87). This Wanua Tengah III inscription is thus highly significant for assessing the validity of the competing-dynasties thesis, for it twice places a clearly Buddhist member of the 'Sañjaya' lineage on both the northern side of the Central Javanese mountains (and thus proximate to the ports which allowed the Javanese to benefit from commerce in the South China Sea) as well as among the extensive collection of Buddhist Śailendra temples on the Prambanan plains; both the *Raka* of Panangkaran and the *Raka* of Garung were indisputably engaged in Buddhist benefactions in both locations.²⁵ It is difficult to see where to place the Śailendra, as they seem crowded

²⁵ I have argued (Sundberg 2003) that the regent *Raka* of Panaraban (reigned 784-803) was also active in the Prambanan plains based on the discovery of the name Panarabwan in a Buddhist tantric mantra on the Ratu Baka hill. The mantra, which runs 'oṃ ṭakī hūṃ jah svāhā', written on a leaf of gold snipped into the shape of a *vajra*, is associated with the wrathful deities of the *Yoga* category of Buddhist tantras and seemingly has its origins in the famous story of Vajrapāṇi's conquest of Maheśvara. The mantra is epigraphically interesting because it has the word 'panarabwan' in the exaggerated superlinear crescent which denotes the vowel 'i' and another word, apparently 'khanipas', squeezed between the vowel and the consonant. Jordaan and Colless (2004) have recently published an article in which they propose alternative interpretations to mine as well as provide notes better specifying the precise find-spot on the plateau. Whereas I argued that King Panaraban instigated the mantra and voluntarily had his name inscribed on the precious gold, Jordaan and Colless offer the suggestion that the Śailendra lords fashioned a coercive mantra and that Panaraban was the target. Concerning the positioning of the word 'Panarabwan' within the crescent of the 'i', they argue (Jordaan and Colless 2004:62) for an interpretation of 'the encircling of Panarabwan's name to convey the idea of his being caught and tied up with ropes and rendered powerless'. Indeed, mantras have been used for political ends. The great Tang court monk Amoghavajra was credited with defeating the invasions of China by Tibetans, Muslims, and rebellious warlords by means of his skill with mantras: the Tibetan general Pugu Huaïen dropped dead in the field while attempting the conquest of China. However, my opposition to the otherwise persuasive interpretation of Jordaan and Colless comes primarily from features of the mantra which they fail to explicitly address: the heart of the mantra is bookended with the benedictory 'oṃ ... svāhā' and thus has an apparently benevolent tone which is difficult to reconcile with the anti-Panaraban purposes envisioned by them. It is instructive to note that in the scene in which Vajrapāṇi's conquers Maheśvara in the *Sarvatathāgatātattvasaṃgraha* (Yamada 1981:160), Vajrapāṇi summons his victim Maheśvara with the unadorned mantra 'hūṃ ṭakki jah'. What is more, the essence of the conceptual innovation which defined the *yoga* stage of the tantras was the yogic identification of the practitioner with the deity – it is entirely expected within this system that Panarabwan actively seek the binding of his preferred deity to himself. For these reasons, I am highly disinclined to believe that the Ratu Boko mantra represents an attempt to gain a coercive hold on Panaraban and feel confident in the validity of my original analysis of the general relationship of Panarabwan to the mantra and the deity it represents.

The second hypothesis entertained by Jordaan and Colless (2004:62) is that the mantra was 'but an opening formula in a more elaborate and complex ritual of post-terminal care' undertaken by the Śailendras on behalf of Panaraban, 'having as its ultimate goal the resurrection of the dead

out by the 'Sañjaya'; conversely it is difficult to find evidence of the subordination of the Sañjaya. Basing the key chronological pegs of an architectural history on the alleged 832 rejuvenation of the fortunes of a native Hindu Javanese dynasty therefore seems to be an even shakier decision now than it might have been, given only the 1968 counterarguments of Damais. The awkward sandwich of Sañjaya sponsorship attributed to both the first and the final of the five construction stages of Barabudur seems all the stranger given that the early members of this dynasty seem to be Buddhists, particularly Panangkaran who would have participated in Dumarçay's first stage and Garung who would have participated in the last. (I presently personally believe in Garung's participation in the construction of Barabudur, not because Garung was the 'resurgent Javanese Hindu' who restored the fortunes of his downtrodden dynasty, but because I believe these 'Sañjaya' kings to be identical to the Śailendra kings.)²⁶ In any case there would be little differentiation in building techniques given, for example, Panangkaran's construction of the Śailendra Tārā-temple at Kālasan.

In closing the topic of the architectural history of Barabudur, I find that the five stages of construction distinguished by Dumarçay are generally valid, and the synchronization of the final stage with its use of the rubble-filled wall facings might correlate with the use of the same technique circa 830 at Candi Plaosan and thus provide a *terminus ad quem* for Barabudur. The alterations to gates during construction at Barabudur and to doors at the already-finished Candi Sewu may also be a consequence of a synchronized change in religious doctrine, but at a time when Sewu had already been largely completed and Barabudur was still in the midst of construction. There is nothing significant about the date of 792 to the history of Javanese

person and his entrance into *nirvana*'. While I will not dispute the possibility of the mantra being a post-mortem benediction, it is difficult for me to envision a situation in which the allegedly Shaiva king Panaraban's dead body was delivered to the Buddhist Śailendra king for funeral rites, especially given the anti-Shaiva nature of the 'rites' they intended to apply to him.

²⁶ The identification of Śailendra with the line of kings stemming from Sañjaya has been contested most effectively by Jordaán 2004. Jordaán notes that the seeming existence of the Śailendra king Samaratuṅga in inscriptions dating from 792 to 824 crosses over the regnal dates which we may assign to the 'Sañjaya' lineage. I hope that certain epigraphical and dynastic issues (namely where Samaratuṅga's name appears and whether he is living or dead) may be clarified in the foreseeable future by renewed documentation of all of the relevant inscriptions (for more on this, see my proposal in the 'Short Notices' elsewhere in this volume). For the present, I am struck that the medieval Javanese chronicles such as the *Babad tanah Jawi* and *Nāgarakērtāgama* present an understanding that the Śailendra kings ruled until a new dynasty was founded by Erlangga (Berg 1965:106-7, 111), thus omitting the lengthy span of time during which a lineage honouring Śrī Sañjaya clearly and indisputably ruled Central and East Java alone. For an overview of how I presently believe the early Śailendra coronation names should be fitted to the lineage of Sañjaya, see Sundberg 2003:176.

Buddhist architecture, and attempts to peg one of Barabudur's construction stages to 792 are mistaken.

Palaeographic considerations as a chronological tool

One lead into the dating of the monument is through palaeographic considerations, by comparing the stylistic and morphological features of the script incised on the short legends of the 'hidden foot' of the monument with other known dated specimens of the script. This technique had found its last prominent practitioner in the epigrapher De Casparis,²⁷ particularly in his publication *Inscripties uit de Çailendra-tijd*,²⁸ in which he argued that palaeographically the short inscriptions of the hidden foot of Barabudur monument most closely accord with a script also used in the 824 Buddhist inscription of Kayumwungan.²⁹ I intend here to offer a set of provisos that nevertheless tend to sustain the conclusions of De Casparis.

In 1950 De Casparis developed two Javanese Buddhist inscriptions, Kayumwungan and Tru i Tepussan, and strenuously attempted to associate these inscriptions with the Barabudur monument by assigning them to a provenance in the vicinity of Magelang.³⁰ De Casparis noted (1981:60) that 'their real origin is unknown, although Verbeek thought that the older inscription, consisting of four fragments and dated A.D. 824, originated from a place called Karang Tengah near Parakan, Temanggung, Keḍu'.³¹ De Casparis's

²⁷ Rita Margaretha Setianingsih submitted a very comprehensive and painstaking master's thesis at Universitas Indonesia on the paleographic characteristics of the inscriptions of the later Balitung (898-910) era. It is to be hoped that she applies her talents to the earlier period.

²⁸ De Casparis 1950:24.50. The treatment of the history of the script in De Casparis's book *Indonesian palaeography* (1975) is by no means as detailed as the paleographic comments he left strewn across his 1950 publication.

²⁹ This inscription has received renewed attention from both the important dissertation of Kandahjaya 2004:113-42 (where he proposes many detailed, interesting and grammatically well-founded amendments to De Casparis's original reading) and as well by Lokesh Chandra in Voûte and Long 2006. Given the new proposed readings which have arisen as well as the doubts expressed on De Casparis's readings by Damais (1953:111-4, 1968:326-31; in which Damais makes it clear that De Casparis had systematically misread the token for the Sanskrit vowel 'au') and Bosch (1952:194), it is strongly desired that the inscription be re-examined.

³⁰ In fairness to De Casparis, the number of Buddhist temples known when he was publishing his work in the early 1950s was smaller than that known today, so he may have reached his conclusions convinced that Buddhist epigraphical references could only refer to the four then-known Buddhist temples on the Plain of Keḍu. Since that time, Buddhist temples have been unearthed as far apart as Wonosobo and Wonogiri.

³¹ De Casparis 1950:24-50. De Casparis (1950:24, note 8) cites Verbeek's *Oudheden van Java* (1891) for the information on Karang Tengah as the find spot of the Kayumwungan inscription. Thanks to Roy Jordaan's patient perusal of the archaeological literature, it is now possible to clearly identify the origin of the inscription as the village of Karang Gedong just to the north of Traji. Karang Tengah is a mistaken name which has been propagated through the literature.

rationale for a Magelang (and thus Barabudur)-area origin was founded on the grounds that the inscriptions were first noticed at the Magelang government yard where they were sent for preservation. De Casparis's justification (1956:211) must be rejected, for we know that both the inscriptions recovered from Candi Perot, on the eastern slopes of Mount Sindoro and thus not many miles from Karang Tengah, were sent to Magelang before being transported to the National Museum in Jakarta. Further consideration of the Kayumwungan inscription suggests that Verbeek's surmise that the inscription derived from Karang Tengah is correct – Verbeek did not just pluck the name of this obscure village out of thin air. A comparison of the local villages named in Kayumwungan with other inscriptions found in the hills between the Merbabu and Sindoro volcanoes (Van der Meulen 1979:35-8) strongly suggests that the Kayumwungan inscription comes from the area just north of Parakan rather than the Magelang plains as De Casparis would have it.³² However, even if the Kayumwungan inscription originated from the opposite side of the Sumbing volcano from where De Casparis wanted to place it, there remain palaeographic considerations greatly relevant to the dating of the Barabudur stūpa.

The palaeographic characteristics of the Kayumwungan script are extensively described by De Casparis (1950:25-31) in a preface to his transcription and translation of the inscription. De Casparis's treatment of the script received knowledgeable, critical and generally unflattering commentary by Damais (1968:317-24). Damais makes it clear that much of what De Casparis asserted to be distinctive about the Kayumwungan and Barabudur scripts is negated by reference to the 760 Sanskrit inscription of Kañjuruhan.³³ Damais (1968:416) himself argued that the Barabudur monument must be dated earlier than 824 on stylistic as well as palaeographic grounds. Damais suggested a reexamination of the Barabudur script, not only with reference to the known eighth century inscriptions, but with those of the seventh century as well. Despite Damais's palaeographic critique,³⁴ I believe that De Casparis's

³² Van der Meulen (1979:38) notes that some of the ancient names found in the Parakan-area inscriptions still persist on the modern map: Trihaji is present-day Traji, Hajihuma is Jumo, Ptir is Petir-rejo, et cetera.

³³ In an unfortunate testimony to the often haphazard manner in which his 1950 book was composed, De Casparis (1941) himself had reread and revised Kañjuruhan at the beginning of his scholarly career, although a long internment in the Japanese prisoner-of-war camps intervened. Damais (1968:322 and elsewhere) repeatedly noted that De Casparis's book generally seemed as though it required one more editorial session to make the conclusions presented throughout the book cohere with one another and with the evidence.

³⁴ Damais's critique was undertaken without palaeographic knowledge of the 792 lithic inscription of Mañjuśrīgṛha, which almost exactly bisects the 64-year gap between Kañjuruhan and Kayumwungan and also helpfully employs a substantial, well-spelled Sanskrit vocabulary with a wide variety of *akṣara*.

general observations about the concordance between the Kayumwungan and Barabuður scripts is valid, particularly with regard to the ornamental and cosmetic formation of the characters.

Kayumwungan and Barabuður are highly ornate and stylistically idiosyncratic standouts in a line of rather dull, unembellished Palaeojavanese inscriptions from 760 (Kañjuruhan), 792 (Mañjuśrīgrha), 807 (Muṇḍuan),³⁵ 821 (Kamalagi), 822 (Huwung),³⁶ and 826 (Abhayānanda). It is remarkable that we have to go back to the origins of the Palaeojavanese script, the 750 inscription of Hampran (Plmpuñan), to find a similar degree of stylization and ornamentation of the characters. Although the 821 inscription from the village of Kuburan Caṇḍi and the 822 inscription from Nanggulan both come from places within a few miles of Barabuður and from within a few years of Kayumwungan, their scripts show nothing of the ornamentation of the Kayumwungan/Barabuður scripts, even if the 822 Huwung inscription on one occasion forms its *virāma* in the same unusual place (above rather than behind the character) that De Casparis thought distinctive about elements of the Kayumwungan script. Conversely, even though the difference in height of the *akṣara* of the Kayumwungan inscription and the Barabuður legends is substantial (something like a ratio of 5:1 if the single presently visible Barabuður legend is a reliable indicator of the general size of the whole group),³⁷ the lapicide nevertheless undertook the Kayumwungan inscription with the fullest execution of the script's distinctive details. It is a tribute to the skills of Kayumwungan's lapicide that he could chisel distinguishing ornamentation on *akṣara* as small as 5 mm. One aspect of the distinctiveness of this script that is left unmentioned by De Casparis is the extreme vertical compression of some of the characters, occurring especially frequently with 'ka' and 'na'. This may be seen in some of the photographs of specimens presented by Krom (see, for example, 1927: Plate 2, no. 138, 'kuśaladharmabhājana') and compared with the Kayumwungan inscription's frequent formation of these letters ('kinaun' on line 51 will be particularly easy to find as it is among the last words in the inscription).

We thankfully have some comparative data to help determine the valid limits of confidence that we may place in palaeographical analysis, no matter

³⁵ Oemar (1970) misread one of the ciphers on the stone. I reduce the true date of the Muṇḍuan inscription to 21 January 807, a date for which the cyclical and lunar calendrical information firmly coincide: 'Ha U Wṛ' is the 110th day of a cycle which began on 4 October 806, which coincides with the 8th day after the full moon of 12 January 807. I intend to publish a study of this inscription, the oldest known Javanese-language inscription of Central Java, at a later date.

³⁶ The inscription of Huwung (De Casparis 1950:128-30) is not just unembellished, it is very crudely and haphazardly written.

³⁷ The single visible word reads '//virupa//' and is to be found in the portion of the 'hidden reliefs' left exposed by the monument's renovators.

Figure 2. A hand-drawn facsimile of the word 'kinaun' from line 51 of the Kayumwungan inscription (above). A photograph of the word 'kuśaladharmabhājana' from the hidden foot of Barabudur (Krom 1927: Plate 2, no. 138) (below).

how skilfully or attentively that analysis is done. On the one hand, there is the continuity of lapicides across time and between regencies. The difference in age between the Kālasan and Abhayagirivihāra inscriptions, both almost certainly executed by the same hand,³⁸ ranges between 14 and 16 years even though the patron seemingly differed between the two inscriptions. This shows the persistence of the stonecutter's craft across time. On the other hand, if there is a concerted effort to propagate a new style of script in the royal inscriptions, there can be greater divergence between the palaeographical phases than De Casparis knew in 1950. In support of this hypothesis I can offer several pieces of evidence for consideration. First, thanks to the improved datings of Plaosan's short inscriptions³⁹ we now know that there is considerably less difference between the age of the Kayumwungan/

³⁸ Not only are the script and hand the same, down to the smallest details, but both inscriptions suffer the same flaw in the proportioning of the text. The inscriptions begin with large characters, but by the middle of the inscription the writer was panicked into thinking that his text would not fit within the allotted space and so squeezed the line spacing until he was certain that the text would fit, whereupon the lines regained their normal size. The Kālasan inscription is on display in the courtyard of the National Museum in Jakarta.

³⁹ As noted above, Kusen discovered that the *Raka* of Sirikan *pu* Sūryya (who, the reader will recall, accompanied the *Maharaja* Garung on his Buddhist *stīpa* dedication mission in 829) spon-

Barabudur script and the abrupt advent of the Śrī Kahulunnan/Plaosan style than De Casparis initially suspected – not the 18 years between 824 and 842, but possibly more like ten years between 824 and 834, or maybe even five years between 824 and the ascension of Garung in 829. Thus, there is much less difference in age between the dated specimens according to the Borobudur script and the Plaosan script than De Casparis could comfortably account for with an ‘evolutionary’ view of the Kawi script or his theories about the waning fortunes of the Śailendra dynasty. Second, it is my observation that the work of the Plaosan inscriptions is due to at least three individuals, working together over possibly a matter of days to complete the project of shrine attribution. The form of their *akṣara* conformed to a stylistic template but the actual execution varied in height from temple to temple⁴⁰ and, as well, varied in degree of slantedness. Both features seem to correspond to the craftsman’s own writing, with no attempt at standardization of height or slantedness across the set of shrines.

We may provisionally conclude that in the few known cases of the royal use of the Palaeojavanese script it was the patron’s will that set the stylistic standard. This is evident in the relationship between the 842 inscription of Śrī Kahulunnan and that of the short donor-identification inscriptions on the shrines of Plaosan, to the extent that I suspect that Śrī Kahulunnan employed one in the royal stable of Plaosan lapicides to incise her own private *sīma* inscriptions.⁴¹ For this reason I find it significant that the Kayumwungan

sored two of the inner-row Plaosan shrines. An indicator that *pu* Sūryya was replaced relatively soon thereafter comes from knowledge of the existence of another inner-row shrine sponsored by an alternate *Raka* of Sirikan, *pu* Angēhan. Terminal dates for the construction of the Plaosan shrines may be approximated to occur in the middle of Garung’s reign: a donor of an inner-row temple was a presumably royal *Raka* of Layuwatang named *dyaḥ* Mahārṇnawa, but that title was occupied by *pu* Manangun by the time of the 846 Buddhist inscription recovered from Kadiluwih near Gunung Wukir. Similarly, the *Raka* of Gurunwangi who donated two inner-row shrines was *dyaḥ* Rāṇu, under which office *dyaḥ* Salaḍu sponsored two outer-row shrines at a time before he became king under the *raka* title of Pikatan. (Pikatan went back after assuming the crown in 847 and added his new royal title to both of his shrines.) All of this new information substantiates Damais’s habitually prescient observation (1968:504) that the lack of recurrence of any one of the Plaosan characters from the 850 inscription of Tulang Air requires that these shrines were erected in the early to mid-830s. The beginning of the erection of the shrines could be specified with even greater precision if the remainder of the name of the *raka* of Wka could be retrieved from the rubble pile of his shrine at I 12: the *Raka* of Wka from the 826 Buddhist Abhayānanda inscription was known to be *pu* Manota, but by the time of Garung’s November 829 *vihāra* benefaction was *pu* Tangal. Similarly, no Plaosan shrine dedication is yet attributable to the early *Raka* of Pikatan; *pu* Pañculiṇ was holding that office in late 829.

⁴⁰ For example, the dedication inscriptions of the two shrines of the *Raka* of Sirikan *pu* Sūryya differ in height by a factor of two, despite being located next to each other.

⁴¹ Damais (1968:368) accepted the very close correspondence between the Plaosan script and the 842 inscription.

script matches to an unprecedented degree the script used to execute some of the short legends of Barabudur⁴² and leads me to suspect that the Princess Pramodavarddhanī similarly employed one of the royal lapicides whose hand had practice in captioning the hidden foot of Barabudur. It is worth noting that the change in the ornamentation of royal scripts between the 824 Kayumwungan inscription and the 842 Śrī Kahulunnan inscription marks a change in regent from Warak to Garung; to my mind this does not seem to come from a natural, organic progression of the Palaeojavanese script as generally used, but rather was an ornamental marker, contrived to be distinctive to the royal patrons. The palaeographic distinctions may therefore parallel a shift in the focus of royal patronage from Barabudur to the Plaosan temples.

Interim evaluation of the dating of Barabudur

Unless or until the great good fortune of finding the foundation inscription of Barabudur provides a firm date for the monument, I make the following appraisal:

1. The architectural synchronizations of Barabudur with other temples have been chronologically grounded on an invalid reading of the Mañjuśrīgrha inscription and ideas about the lingering presence of a rival dynasty of Hindus. The advent of the technique of finely-finished facing-walls filled with rubble, seemingly first used around 830 at the main temples of Plaosan and also used to refashion some of the Barabudur's gates in its final stages of construction, may be considered a valid chronological indicator. It allows some sense of the terminal dates for the construction of the monument, which probably took place sometime in the 830s during the reign of Garung.

2. Of the approximate means of dating the monument that this article has examined, the palaeographic arguments about the script buried in the hidden foot provide the strongest and most specific dating of the collapse of the walls and termination of the first construction stage. These considerations suggest the likely date of the covering up of the hidden foot to be within a decade or so of the 824 inscription of Kayumwungan. Given a terminus for the finishing of the monument in the 830s, it seems prudent to place the erection of the massive retaining wall in the time-frame anterior to 824, as the majority of the monument still remained to be finished.

3. The extant evidence does not allow for a date of the ground-breaking or the beginning of the initial construction stage of Barabudur. Without access to the foundation inscription, such a date remains entirely hypothetical, as

⁴² I have not examined the inscription reading 'ye dharmma' recovered from the Menḍut temple and so cannot comment on it.

the work achieved before the erection of the hidden foot could have been undertaken by a massive work crew labouring for a short period of time, or a smaller work gang toiling for a longer period of time.

4. Given this information, I propose assigning a date around 800 for the initial hill-fill and pegging out of the monument, around 810-820 for the emergency erection of the stabilization ring which hid the original foot, and 830-835 for the final reprises to the gates.

5. The likely dates thrown up by these considerations seem supported by a general consensus of art-historical considerations regarding the features of the original stages of the monument.

This said, the reader will permit me to lay out a new argument about the founder and the date of the Barabuḍur stūpa, one that I believe accords with the above chronological data rather well.

A hypothesis: Rakai Warak dyaḥ Manāra and the foundation of Barabuḍur

The location of the Barabuḍur has often been surmised to be historically or dynastically significant to the kings of Java, as noted by, for example, De Casparis (1981:69): 'It can be easily understood that they would have paid particular attention to their original center of power, the hill where they had their real roots in the fertile plain of the Keḍu. They then conceived the brilliant idea of combining their Buddhist piety and their profound attachment to their native soil into the conception of a monumental foundation at the site of their original center.'⁴³ Indeed, it is almost indisputable that the hill on which the Barabuḍur was erected was elaborately extended and heightened in order to render it suitable for the construction of the monument, even though natural hills better suited to host the construction could easily be found nearby; the siting of the Barabuḍur was no arbitrary decision but compelled by overriding considerations.⁴⁴

This idea of the Barabuḍur's location being significant is reflected in the uncannily perceptive ideas of Iwamoto (1981), who used the Javanese

⁴³ This basic sentiment is given an independent and slightly alternate expression by Woodward (1981:131), who noted that 'given the frequency with which stūpas have been memorials to historical figures, and the established funerary character of the East Javanese caṇḍi and of the temple-mountains of ancient Cambodia, it is easier to believe that Barabuḍur was a memorial to a king than that it was not'.

⁴⁴ I am indebted to Caesar Voûte, the author of a forthcoming book on the monument, for emphasizing to me the importance of this location for the Javanese constructors. His arguments are extensive and may be found in Voûte 2006:240-50, as well as in Voûte and Long 2006. The source for the Barabuḍur's fill was seemingly the large Dagi hill to the northwest, as well as the stone flakes from the block trimming generated by its own construction.

tantric ritual manual *Sang Hyang Kamahāyānikan* to relate the six Buddhas of that system to the distribution of an equal number of Buddha-types on Barabuḍur, a distribution which only makes sense if we acknowledge that the 'left' and 'right' of the tantric system are determined with respect to the southwest-northeast diagonal of Barabuḍur. On this basis, Iwamoto held that Barabuḍur in fact faces to the northeast. Noting that the Menḍut temple opens to the northwest, Iwamoto further held that the *kraton* of the Śailendra might be sought in the intersection of the two axes.⁴⁵ Daigoro Chihara (1996:127-8), as a member of the consultative committee of the UNESCO Borobudur Restoration Project, took Iwamoto's theoretical observations seriously and pursued them with precise surveying instruments. Determining that the angle of intersection was indeed a right angle of 89.5 degrees, Chihara suggested an excavation of the area.

If there is a *kraton* or other historically significant locale to be found at the intersection of the axes of Menḍut and Barabuḍur, the question is: whose *kraton*? Although the general speculation associates it with the origin of the Śailendra dynasty, all the local evidence that I can muster suggests that the area around the Barabuḍur was associated with the territory of the Javanese king *Śrī Mahārāja Rakai Warak dyah* Manara (reigned 803-827).⁴⁶ So far as I am able to localize Warak's appanage domain, it lies in the historically pregnant area of the central Keḍu plain. The only inscription recovered from the great Javanese king Sañjaya dates from the 16th year of his reign and was found amidst temple ruins on a bluff six miles away from Barabuḍur. We witness the use of Warak as toponym, including the naming of the river Kali Warak which flows three miles to the northeast of modern-day Magelang. These toponyms include a contemporary citation in the 821 inscription of Kamalagi (De Casparis 1950:126-7; Sarkar 1972: no. ix), found just a few miles from Barabuḍur, of 'Waragwarak' (perhaps denoting the Warak village in Warak district). The list of suggestive Warak-related toponyms grows even larger if we are willing to broaden the considerations to include Warak's personal

⁴⁵ The Pawon temple also opens to the northwest; it is unknown what this temple points to. There are the foundation ruins of another temple, a fourth participant in the Barabuḍur-Pawon-Menḍut axis, directly across the river from Pawon. This temple was discovered by Voûte in the early 1970s through infra-red remote prospecting. No information regarding this temple's orientation can be found. Dumarçay (1981:42 note 3, 1993:67) seemingly mislocates this temple in the modern cemetery of Bojang village.

⁴⁶ Warak's consecration name is unfortunately left unmentioned in the Wanua Tengah III inscription. Warak's territorial name seems to mean something like 'the rhinoceros', 'the horn', or 'the spike' – compare Lokesh Chandra's edition (1995:401) of the *Sang Hyang Kamahāyānikan* in which the meditator is instructed to form a *vajra*-tongue by making the tongue 'warak'. It is possible that the Warak district was named for a conspicuous rock formation which remains to be detected.

Photo 2. A view of Barabudur and the Menoreh hills from the Dagi hill. It is the author's thesis that the Menoreh hills derived their name from the personal name of King Warak *dyah* Manāra (reigned 803-827), in whose personal *watak* Barabudur seemed to lay. Photo courtesy of Mark Long.

name as well as the name of his *raka* domain.⁴⁷ The inscription of Wanua Tengah III first mentions him on line IB5 ‘*Rakai Warak dyaḥ Manara*’, as well as ‘*Rake Warak*’. The Old Javanese para-translation of the 829 Garung inscription refers to him not by name but by the place where he was buried, but the Sanskrit original (line IB17) spells his personal name more carefully in the compound ‘*manārākhye*’. It is unfortunate that the last vowel of Warak’s personal name is buried in an ambiguous *sandhi*, but we may be sure that it was properly spelled ‘*Manāra*’ or ‘*Manārā*’. It is also instructive to know that Warak was remembered in the *Carita Parahyangan* not by his *raka* title (as the *Carita Parahyangan* remembered Warak’s predecessor Panaraban) or consecration name but using his personal name, ‘*Sang Manarah*’.⁴⁸ Given the soft sound of the Sanskrit ‘*a*’ and the Javanese vowel shift from ancient ‘*ā*’ to modern ‘*o*’, the expected present-day Javanese permutation of this name must be ‘*Mənorə*’, ‘*Mənoré*’, or ‘*Mənorō*’. This fact brings to mind the topography of the immediate surroundings of Barabuḍur, where the hills are named the ‘*Menoreh Hills*’. There is even a village named ‘*Candi*’ in the Menoreh sub-district about 5 miles west of Barabuḍur which has very recently yielded up the archaeological remains of a buried Buddhist stūpa.⁴⁹

Given the prevalence of Warak-affiliated toponyms in the lower Keḍu, it is therefore my opinion that whatever was pointed to by Menḍut and Barabuḍur was probably Warak’s, as the entire complex seems to lie within his domain. It is significant that the other valid pointers to a dating of the temple, primarily the substantial palaeographic similarities with the 824 Kayumwungan inscription but also the correlation of architectural technique and the general consensus of art-historical opinion, tend to place the Barabuḍur stūpa within Warak’s reign.

Economic considerations may also play a role in assigning the Barabuḍur monument to Warak’s regency. Warak’s time seems to have been a period of economic scarcity. Unlike the expensive metal statuary equipping the older Śailendra Buddhist temples on the Prambanan plains (such as Kalasan, Lumbung, and in particular the immense sea of metal statues necessary to

⁴⁷ There is a solid precedent for Javanese toponyms derived from the personal name of a ruler: the Kali Senjaya runs near Mount Merbabu.

⁴⁸ We do not know the personal names of all of the other early kings of Matarām; knowing the personal names might lead us to a better appreciation of the derivation of otherwise baffling toponyms. Perhaps Sañjaya and Warak were for some unknown reason holdouts, different from the other kings in their personal preference for using their proper names, which recur in both contemporary inscriptions, inscriptions from the Balitung period, as well as preserved in the legend of the *Carita Parahyangan*.

⁴⁹ A news article in the 15 September 2002 *Kedaulatan Rakyat* reports that this temple was found two metres deep in the rice fields of Desa Menoreh. The temple has eight tapering sides and measures 12 metres by 12 metres, with a possibly four-sided base.

properly populate all of the shrines of Candi Sewu) firmly known to be erected in the 770s to 790s, the statuary for the Buddhist temples in the Keḍu are stone, available in material abundance though requiring a large labour force to extract and move. We know from the Wanua Tengah III inscription that at some point in his reign Warak decided to revoke the *sīma* (tax-demarcated) status of the fields of Wanua Tengah for the *vihāra* at Pikatan, even though the fields were originally given out of the royal portfolio by Panangkaran. The fact that we have recovered a substantial number of *sīma* demarcation stones from the later period of Kayuwangi through Balitung but none from Warak's suggests to me that Warak's revocation of the *sīma* status of the fields at Wanua Tengah was not isolated, and may have been a manifestation of a substantial and systemic attempt to consolidate the kingdom's finances.⁵⁰

On the other hand, the generally materially inferior statuary on the Keḍu plains may also be explained by supposing that Warak died before completing his Barabudur monument and it was left for his successors Gula and Garung to finish, which they did abruptly by covering the original top to the monument and capping it with inexpensive statues, doing the same with Menḍut.⁵¹ Some architectural support for this thesis is noted in Dumarçay's discovery (1981:42, note 7) of refurbishments of Barabudur's first-gallery gates using the technique of the rubble-filled double facing, which only became current in the temples of Plaosan and Prambanan, temples which likely had their origin during the reigns of Garung and Pikatan. The technique was also used to modify the entry portal at Menḍut (Dumarçay 1986:49).

As we see, there is substantial evidence to buttress the notion of *dyah* Manāra as the primary patron of Barabudur, a hypothesis which I would be tempted to make merely on the basis of its chronological concordance with the other data. Just as Plaosan later served Garung and Sewu may have earlier served Panangkaran or Panaraban, it would appear that Barabudur was the signature showpiece of the long reign of King Warak.

⁵⁰ While the evidence would require many pages to properly argue, I would like to tentatively suggest a hypothesis: a split between Śailendra possessions in Java and Sumatra, leaving Warak in control of Java and his putative brother Bālaputradeva the richer Sumatran domains which are claimed as his in the Nālandā inscription. (Acceptance of this hypothesis might serve to explain the dark tone expressed in Bālaputradeva's section of the Nālandā inscription, where some ill-defined treachery is sourly alluded to. See Shastri 1924.) This hypothesis might also find some support in the *Carita Parahyangan*, which omits any mention of a Śailendra rival for the virtuous King Warak but does record that Warak fought intensively with his brother Rahyang Banga, seemingly after Warak's imprisonment of their own father. I wish to express my sincere appreciation to Hudaya Kandahjaya for providing a translation of this passage of the *Carita Parahyangan* into English.

⁵¹ In this context, I find a palaeographic re-examination of the Menḍut *ye dharmma* inscription to be necessary.

Appendix: Detailed analysis of the primary verb of Mañjuśrīgṛha

To better establish the meaning of this key verb in the inscription, I wish to devote a few paragraphs to an overview of possibilities to see if they indeed offer any data of archaeological relevance. Because of the importance of the verb, I devoted considerable time and effort to devising a facsimile and ascertaining both that the facsimile was correct and accurate in all essential features, and as well devoted considerable time and effort to establishing the correct or at least most plausible readings of the visible features (see Figure 1). The often repeated reading of Boechari is clearly untenable. The supposed 'va' opens to the right and even has a little downward-sloping wave or squiggle at the lower termination; the supposed 'da' opens to the top rather than to the right; the supposed subscript 'dha' has only one basin rather than the required two, and furthermore has a clear terminating nick at the upper right side.

If we look at the *akṣara* on the stone on a character-by-character basis, we derive the following possibilities:

- The fourth cluster from the right on line 2 is a very clear 'ma' and this character presumably initiates a new word, as the previous word can be read with some certainty as 'nāmaṇḍa', which is almost certainly Malay-suffixed Sanskrit denoting 'his name'.

- The third cluster from the right on line 2 has the character 'da' or possibly a malformed 'na' or 'ḍa' as the linear character. The prototypical 'da' seems to best fit the orthographic characteristics of the *akṣara* in question; a specimen of the type is attested in the word 'prāsāda' on line 3. There is a small superlinear notch in the shape of a 'v' above the linear character, which may either represent a token for an 'r' or else may be a chiseling accident or blemish on the stone. The subscript character is more mysterious, as it does not neatly fit any orthographic set used in Holle's inventory of the forms of characters, or indeed any of the inscriptions in the courtyard of the National Museum. 'Ca' is a candidate; an unmistakable example occurs twice in three *akṣara* on line 6 in the word 'sacarāca[rā]'; the first of the 'ca' even bears the little flag post on the right with the same type of terminating head. Boechari read the vowel 'ṛ' in this location, and we could, with little problem, imagine that a careless scribe or a slip of the chisel of the lapicide⁵² might close the 'ṛ' and yield the features we note on the character in question.

- The second cluster from the right on line 2 contains a very clear super-script 'i', riding on a curious wavy, right-rising line which does not recur

⁵² We cannot attribute the features to nature; the smallest details on this part of the stone are quite clear and there is no chance that the *akṣara* in question was closed by an inadvertent scrape.

on any other *akṣara* on the stone. The 'i' also has two small nicks radiating from the upper and right-hand sides. The linear character would be taken for a conventional 'pa' were it not for the aforementioned line rising up from its left terminus, as well as a small horizontal nick dead-centre between the upper prongs of the character. We cannot rule out a poorly formed 'ṣa'. The subscript character is strangely shallow and again does not accord well with Holle's paradigmatic sets. It may be a foreshortened 'pa', though it has a terminus on only the right side. It could represent a squat 'ṭa'. Finally, it could represent a 'ṛ', though the reading of this vowel would conflict with the demonstrable presence of the superscript vowel 'i'.

To summarize the possibilities as described above, we find that they combinatorially amount to 48; only the initial 'ma' and the final 'i' are without doubt. We therefore may conclude that our characters spell out some word like 'marnṛpṭi', 'madcaṣpi', 'madṛṣṭi' or one of the 45 other possible combinations. It is thus our rather tedious job to find which of these phonemes are plausible within the background of an eighth-century Buddhist Malay inscription found in the middle of the island of Java.

We begin our task by assuming that the word is fundamentally Old Malay and try to find a duplicate term from the known inventory of occurrences of words within other Old Malay inscriptions, or, as a second best, seeking to identify possible lexicographical equivalents in modern Malay or Bahasa Indonesia. We note that the majority of our possible *akṣara* are suitable for Sanskrit phonemes only, and a superficial investigation of the small number of the combinatorics useful for representing Malay phonemes reveals that they are all variants of 'mancappi' or 'mardcappi', which if an Old Malay lexicographical item seems to me – I am no linguist – now irrevocably dead and unrecoverable in the present language.

The other avenue is to assume that the word is Sanskrit and to scan Sanskrit dictionaries to discover correspondences between Sanskrit vocabulary and the possible readings suggested above. Consultation of the dictionaries of Monier-Williams, and Edgerton reveals that there are no given entries which begin with 'manṛ...' or 'madṛ...' and no possibilities of a word beginning with 'ḍa'. We therefore suspect that Boechari was correct in surmising that the Malay prefix 'ma' or 'mar' was joined to a Sanskrit vocabulary item; this understanding compels that the subscript character of the second syllable be read as 'ṛ', as an initial consonant cluster such as 'nca' or 'dca' is rare enough in any language and impossible in Sanskrit.

Pursuing the hypothesis of a Malay prefix for a Sanskrit word, we find that the possibilities represented by 'nṛ' in the dictionaries of Monier-Williams and Edgerton include multiple compounds which branch from this stem ('nṛpati' is a good example) but nothing which accords with the last syllable. Turning now to the reading of 'dṛ' as the first syllable leads

to a number of lexigraphs such as 'drpta' (meaning 'extravagant' or 'wild'), but neither the existence of the superscript 'i' on the third character nor the Buddhist context would support such a reading. There is no item for 'drpṭi', which would be the most preferred and least contrived reading of the stone, the one that I would choose based merely on the shape of the *akṣara* visible on the stone. We could possibly justify a reading of 'drṣṭi' (meaning 'seeing'), but this demands that the vertical nick in between the goal-posts of the 'pa' be taken for the line which closes the 'pa' and forms a 'ṣ'. Happily, an unmistakable precedent for precisely such a defect occurs in the date on line 1 of the inscription in the word 'suklapakṣa', where only the indisputably clear context prohibits the reading of 'suklapakpa'.

On these grounds, I believe that the only plausible candidate reading of the critical first sentence of the stone is 'drṣṭi'. Let us examine the potential meaning of this word. 'Drṣṭi' bears a meaning of 'seeing, looking at, beholding; vision, eyesight; intelligence; glance, look, opinion', though the *Buddhist hybrid Sanskrit grammar and dictionary* of Edgerton (1953, II: 269) notes that the word rarely occurs in a good sense, mostly being associated with its Pāli sense of '[wrong] views' or '[wrong] opinions'; indeed *mithyādrṣṭi* occurs in this sense at least once in the *advaya-sādhana* portion of the Javanese tantric manual *Sang Hyang Kamahāyanikan* (Lokesh Chandra 1995b:357) as well as captioned on the hidden foot of Barabudur. It also raises the question of why the past participle was used to form a stem for a Malay-embedded verb. However, the verb stem *drṣṭ* appears in the Old Javanese commentary on verse 11 of the *mantranaya* portion of the same text (Lokesh Chandra 1995:308) in the context of 'visualizing' the maṇḍala, so its colloquial use by literate Buddhists within the precincts of the Sewu temple should present no real objections.⁵³ Unsatisfactory as 'madrṣṭi' may seem as a *raison d'être* for the creation of an inscription in a royal temple of the Śailendra kings, no more plausible alternatives present themselves, and we may provisionally conclude that on 2 November 792, the *Daṃ Nāyaka di Raṇḍa* Lurapaṃ 'visualized' the Mañjuśrīgṛha.

⁵³ The rise of the tantras also gave rise to new Buddhist vocabulary, and as I hope to demonstrate on a later occasion at least one Śailendra inscription is made clearer with reference to contemporary vocabulary in the Buddhist tantras. The same may be true of our inscription. Abe (1999:118) reports that Hui-lin (737-820), a Kashgarian tantric monk of Amoghavajra's circle, completed *The pronunciation and meaning of words from the complete Buddhist scriptures*, an AD 807 Buddhist lexicon which included 650,000 words from 1,300 scriptures. Works such as this illustrate the extensiveness of the vocabulary used in contemporary Buddhist literature.

References

- Abé, Ryūichi
1999 *The weaving of mantra; Kūkai and the construction of esoteric Buddhist discourse*. New York: Columbia University Press.
- Bemmel, Helena A. van
1994 *Dvārapālas in Indonesia; Temple guardians and acculturation*. Rotterdam/Brookfield: Balkema. [Modern Quaternary Research in Southeast Asia 13.]
- Berg, C.C.
1965 'The Javanese picture of the past', in: Soedjatmako, Mohammad Ali, G.J. Resink and G.McT. Kahin (eds), *An introduction to Indonesian history*, pp. 87-117. Ithaca NY: Cornell University Press.
- Boechari, M.
1976 'Some considerations of the problem of the shift of Mataram's center of government from central to east Java in the 10th century A.D.', *Bulletin of the Research Centre of Archaeology of Indonesia* 10.
1992 'Transkripsi sementara prasasti Manjusigrha', in: I.G.N. Anom (ed.), *Candi Sewu; Sejarah dan pemugarannya*, pp. 94a-b. [Jakarta]: Bagian Proyek Pelestarian, Pemanfaatan Peninggalan Sejarah dan Purbakala Jawa Tengah.
- Bosch, F.D.K.
1952 'Review of J.G. de Casparis, *Inscripties uit de Çailendra-tijd*', *Bijdragen tot de Taal-, Land- en Volkenkunde* 108:190-9.
- Casparis, J.G. de
1941 'Nogmaals de Sanskrit-inscriptie op den steen van Dinoyo', *Tijdschrift voor Indische Taal-, Land- en Volkenkunde* (TBG) 81:499-513.
1950 *Inscripties uit de Çailendra-tijd*. Bandung: Nix. [Prasasti Indonesia 1.]
1956 *Selected inscriptions from the 7th to the 9th Century A.D.* Bandung: Masa Baru. [Dinas Purbakala Republik Indonesia, Prasasti Indonesia 2.]
1958 *Short inscriptions from Tjandi Plaosan-Lor*. Djakarta: Dinas Purbakala. [Bulletin of the Archaeological Service of the Republic of Indonesia 4.]
1975 *Indonesian palaeography; A history of writing in Indonesia from the beginnings to c. A.D. 1500*. Leiden: Brill.
1976 'Review of Himansu Busan Sarkar, *Corpus of the inscriptions of Java* (Corpus inscriptionum Javanicarum) (up to 928 AD), 2 vols', *Journal of the Royal Asiatic Society of Great Britain and Ireland* (1976):177-8.
2000 'Review of Roy E. Jordaan, *The Śailendras in Central Javanese history; A survey of research from 1950 to 1999*', *Bijdragen tot de Taal-, Land- en Volkenkunde* 156:814-6.
- Chihara, Daigoro
1996 *Hindu-Buddhist architecture in Southeast Asia*. Translated by Rolf W. Giebel. Leiden: Brill. [Studies in Asian Art and Archaeology 19.]
- Crawford, J
1967 *History of the Indian archipelago; Containing an account of the manners, arts, languages, religions, institutions, and commerce of its inhabitants*. London: Cass. Three vols. [First edition 1820.]

Damais, Louis-Charles

- 1952 'Études d'épigraphie indonésienne; III. Liste des principales inscriptions datées de l'Indonésie', *Bulletin de l'École Française d'Extrême-Orient* 46:1-105.
- 1963 'Bibliographie indonésienne; V. Publications du Service Archéologique de l'Indonésie', *Bulletin de l'École Française d'Extrême-Orient* 51:536-94.
- 1965 'Pre-seventeenth century Indonesian history; Sources and directions', in: Soedjatmako, Mohammad Ali, G.J. Resink and G.McT. Kahin (eds), *An introduction to Indonesian historiography*, pp. 24-35. Ithaca NY: Cornell University Press.
- 1968 'Bibliographie indonésienne; XI. Les publications épigraphiques du Service Archéologique de l'Indonésie', *Bulletin de l'École Française d'Extrême-Orient* 54:295-521.
- 1970 *Répertoire onomastique de l'épigraphie Javanaise*. Paris: École Française d'Extrême-Orient. [Publications de l'École Française d'Extrême-Orient 57.]

Dumarçay, Jacques

- 1977 *Histoire architecturale du Borobudur*. Paris: École Française d'Extrême-Orient. [Mémoires Archéologiques 12.]
- 1978 *Borobudur*. Edited and translated by Michael Smithies. Kuala Lumpur: Oxford University Press. [Oxford in Asia Paperbacks.]
- 1981 *Candi Sewu et l'architecture bouddhique du centre de Java*. Paris: École Française d'Extrême-Orient. [Mémoires Archéologiques 14.]
- 1986 *The temples of Java*. Translated and edited by Michael Smithies. Singapore: Oxford University Press.
- 1993 *Histoire de l'architecture de Java*. Paris: École Française d'Extrême-Orient. [Mémoires Archéologiques 19.]
- 2003 'Un lac autour du Borobudur?', *Archipel* 65:17-24.

Edgerton, Franklin

- 1953 *Buddhist hybrid Sanskrit grammar and dictionary*. New Haven CT: Yale University Press. Two vols. [William Dwight Whitney Linguistic Series.]

Fontein, Jan

- 1967 *The pilgrimage of Sudhana; A study of Gaṇḍavyūha illustrations in China, Japan, and Java*. 's-Gravenhage: Mouton.

Groeneveldt, W.P.

- 1887 *Catalogus der archeologische verzameling van het Bataviaasch Genootschap van Kunsten en Wetenschappen*. Met aanteekeningen omtrent de op verschillende voorwerpen voorkomende inscripties en een voorlopige inventaris der beschreven steenen door J.L.A. Brandes. Batavia: Albrecht.

Holle, K.F.

- 1877 *Tabel van oud- en nieuw-Indische alphabetten*. Buitenzorg: Lang.

Iwamoto, Yutaka

- 1981 'The Śailendra dynasty and Borobudur', *Proceedings of the International Symposium on Chandi Borobudur*, pp. 89-91. Tokyo: Executive Committee for the International Symposium on Chandi Borobudur.

- Jordaan, Roy E.
2004 'Why the Sailendras were not a Javanese dynasty'. Paper, Symposium Non-Javanese, Not Yet Javanese, and Un-Javanese: Encounters and Fissures in a Civilization, Leiden, 23-25 March.
- Jordaan, Roy and Brian Colless
2004 'The Ratu Boko mantra and the Sailendras', *Berkala Arkeologi*, 24-1:56-65.
- Kandahjaya, H.
2004 *A study on the origin and significance of Borobudur*. PhD thesis, University of California, Berkeley.
- Kedaulatan Rakyat*
2002 'Temuan 2 Candi di Magelang; Usianya sudah ribuan tahun', 15 September.
- Klokke, Marijke J.
1996 'Borobudur: A maṇḍala? A contextual approach to the function and meaning of Borobudur', *IIAS Yearbook 1995*, pp. 191-219. Leiden: International Institute for Asian Studies.
- Krom, N.J.
1927 *Barabudur; Archeological description*. Vol. 2. The Hague: Nijhoff.
- Kusen
1992 'Alih aksara dan terjemahan prasasti Manjusigrha', in: I.G.N. Anom (ed.), *Candi Sewu; Sejarah dan pemugarannya*, pp. 94a-b. [Jakarta]: Bagian Proyek Pelestarian/Pemanfaatan Peninggalan Sejarah dan Purbakala.
- 1994 'Raja-raja Mataram Kuna dari Sanjaya sampai Balitung; Sebuah rekonstruksi berdasarkan prasasti Wanua Tengah III', *Berkala Arkeologi* 14:82-94.
- Lohuizen-de Leeuw, J.E. van
1981 'The dvārapāla of Barabudur; New evidence for the date of the foundation of the monument', in: Luis O. Gómez and Hiram W. Woodward Jr (eds), *Barabudur; History and significance of a Buddhist monument*, pp. 15-23. Berkeley CA: University of California Press.
- Lokesh Chandra
1995 'Saṅ Hyaṅ Kamahāyānikan', *Cultural Horizons of India* 4:295-464.
- Lokesh Chandra and Mark Long
forthcoming *Candi Mendut*.
- Mackenzie, C
1814 'Narrative of a journey to examine the remains of an ancient city and temple at Brambana in Java', *Verhandelingen van het Bataviaasch Genootschap van Kunsten en Wetenschappen* 7:1-54.
- Meulen, W.J. van der
1979 'King Sanjaya and his successors', *Indonesia* 28:17-54.
- Monier-Williams, Monier
1899 *A Sanskrit-English dictionary; Etymologically and philologically arranged with special reference to cognate Indo-European languages*. Oxford: Clarendon Press.

- Oemar, Moh.
1970 'Prasasti Munduan'. Paper, Seminar Sedjarah Nasional ke-2, Jogjakarta, 26-29 August.
- Restoration
2006 *The restoration of Borobudur; The jewel of a golden age*. Paris: UNESCO.
- Sarkar, Himansu Bhusan
1971-72 *Corpus of the inscriptions of Java (Corpus inscriptionum Javanicarum) (up to 928 AD)*. Calcutta: Mukhopadhyay. Two vols.
- Shastri, Hirananda
1924 'The Nalanda copper-plate of Devapaladeva', *Epigraphia Indica* 17:310-27.
- Snellgrove, David L.
1996 'Borobudur: stūpa or maṇḍala', *East and West* 46/7-4:477-83.
- Soekmono, R.
1972 'The archaeology of Central Java before 800 AD', in: R.B. Smith and W. Watson (eds), *Early South East Asia; Essays in archaeology, history and historical geography*, pp. 457-72. New York: Oxford University Press.
- Stutterheim, W.
1933 'Is Tjanḍi Baraboedoer een mandala?', *Djāwā* 13:233-7.
- Sundberg, Jeffrey Roger
2003 'A Buddhist mantra recovered from the Ratu Baka plateau; A preliminary study of its implications for Śailendra-era Java', *Bijdragen tot de Taal-, Land- en Volkenkunde* 159:163-88.
2004 'The wilderness monks of the Abhayagirivihāra and the origins of Sino-Javanese esoteric Buddhism', *Bijdragen tot de Taal-, Land- en Volkenkunde* 160:95-123.
forthcoming 'The state of Matarām; A review of recent efforts to clarify its history', in: Lokesh Chandra and Mark Long, Candi Mendut.
- Voûte, Caesar
2006 'A new perspective on some old questions pertaining to Borobudur', in: *The restoration of Borobudur; the jewel of a golden age*, pp. 213-50. Paris: UNESCO.
- Voûte, Caesar and Mark Long
2006 *Borobudur; Pyramid-mountain of the cosmic Buddha*. New Delhi: DK Books.
- Williams, Joanna
1981 'The date of Barabudur in relation to other Central Javanese monuments', in: Luis O. Gómez and Hiram W. Woodward Jr (eds.) *Barabudur; History and significance of a Buddhist monument*, pp. 25-45. Berkeley CA: University of California Press.
- Woodward, Hiram W., Jr.
1981 'Barabudur as a stūpa', in: Luis O. Gómez and Hiram W. Woodward Jr (eds), *Barabudur; History and significance of a Buddhist monument*, pp. 47-83. Berkeley CA: University of California Press.
1999 'On Borobudur's upper terraces', *Oriental Art* 45-3:34-43.

- 2004 'Esoteric Buddhism in Southeast Asia in the light of recent scholarship', *Journal of Southeast Asian Studies* 35:329-54.
- Yamada, I.
1981 *Sarva-tathāgata-tattva-saṅgraha-nāma-mahāyāna-sūtra; A critical edition based on a Sanskrit manuscript and Chinese and Tibetan translations*. New Delhi: International Academy of Indian Culture.