Candi, space and landscape : a study on the distribution, orientation and spatial organization of Central Javanese temple remains

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CHAPTER 3

Temple Remains of Central Java : Corpus

A Short Geography of Central Java

Topography

The island of Java is an elongated stretch of land, more than 1000 km long and about 100 km from north to south (Figure 1). Its northern coast, facing the Java Sea, is bordered by an alluvial plain, the width of which may vary, in Central Java, from 40km (near Tegal), to a few kilometers (between Pekalongan and Kendal). Further inland, parallel to the coast, runs the impressive North Serayu Ridge. Its main summits are, from west to east, Slamet (3432m), Ragajembangan (2177m), Prahu (2565m) and Ungaran (2050m). The North Serayu Ridge is continued to the east by the Kendeng Hills, which reach 899m. South of these mountains lies the central depression zone of Java, which encompasses plains of varying size, such as the plains of Purwokerto, Magelang, Yogyakarta, Solo, Purwodadi and Ngawi. The depression zone is partly capped by a series of high volcanoes: Mounts Sundoro (3155m), Sumbing (3371m), Merbabu (3145m), Merapi (2947m) and Lawu (3265m). The Central depression zone is further divided by the presence of the South Serayu Mountains and the Menoreh Hills. In most parts of the island, the Central depression zone is bordered to the south by the Southern Mountains, a steep mountainous chain that prevents access to the Indian Ocean.

In Central Java, however, with the exception of its easternmost part, the central depression zone is not bordered by mountains. The plains gently slope southward to the ocean (fig.2). Historical Central Java,[1] which encompasses the Progo valley and its direct surroundings, constitutes a transition zone between the closed, mountainous landscape of the west and the open plains of the east. From a geographer's point of view, it is the border between Central and East Java.

Hydrography

Central Java possesses four main hydrographical basins (Figure 2): the Serayu, the Progo, the Serang and the Solo basins.

The Serayu River begins on Mount Sundoro and flows westwards through the Wonosobo-Purwokerto plain, until it reaches the Indian Ocean in the neighbourhood of Cilacap. The Progo River is the main watercourse of historical Central Java. Unlike

[1] By historical Central Java, I mean the area that is the cradle of the Central Javanese Hindu-Buddhist civilization, i.e. the DIY and the central districts of the province of Java Tengah (i.e. *kabupaten* Purworejo, Wonosobo, Magelang, Temanggung, Kendal, Semarang, Kota Semarang, Kota Salatiga, Boyolali and Klaten). DIY stands for *Daerah Istimewa* Yogyakarta (Special Region of Yogyakarta), which forms one of the six main administrative divisions of the island of Java, together with the provinces of Jawa Barat (West Java), Banten, Jakarta Raya, Jawa Tengah (Central Java) and Jawa Timur (East Java).

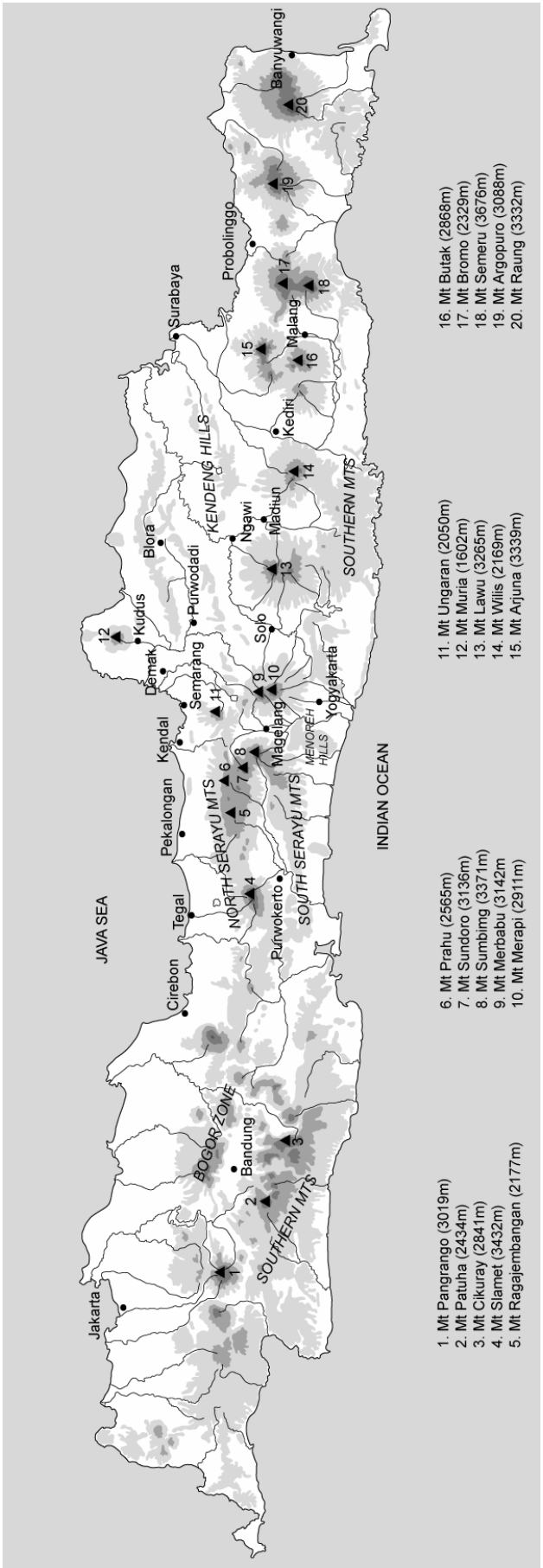

Figure 1: Morphological Map of Java

the other rivers that originate from the Central depression of Java and run east or westwards, the Progo River flows directly from north to south.[2] Its source is located high on Mount Sundoro, while its main tributary, the Elo River, takes its source on Mt Merbabu.

The third main hydrographical basin of Central Java is the Serang River, and its main tributary is the Lusi River. The Serang flows down the northeastern slope of *gunung* Merbabu to the area of Purwodadi, where it meets the Lusi. From Purwodadi, the Serang River continues north-westwards until it reaches the Java sea, not far from Kudus and Demak. Its main tributary, the Lusi River, originates from the area of Blora and flows from east to west through the plain of Purwodadi.

The last large river of Central Java, the Solo River, is also the longest river of the island. The Solo River has its source in the southern part of the Solo plain. It flows first northwards, receiving tributaries originating from the slopes of Mounts Merapi-Merbabu and Lawu, before heading to the northeast and ending its course faraway in Eastern Java, a little to the north of Gresik.

Apart from these three main hydrographical basins, Central Java possesses numerous short rivers flowing northwards through the northern coastal plain or southwards between the south Serayu Mountains and the Indian Ocean.

Composition of the Temple Corpus

Now that we have an idea of the natural landscape of the region, we are in a position to obtain a perspective of the archaeological sites and how they are distributed over the region. More than 280 temple remains were once visible in Central Java, scattered all over the region. Today, however, a large part of these ruins has vanished. Some of them were used as stone quarries to build new houses, mosques or bridges. Others were simply victims of the ravages of time or were buried under residues from human activities. The situation is scarcely better for the majority of the remaining sites: many former temples have been reduced to a few dozen stones scattered in a field or along a road. On the other hand, certain buildings were relatively well preserved and anastylosis granted them a new life. Restored from top to bottom, these temples are now waiting to be visited and admired.

Information about temples and temple remains is therefore highly heterogeneous. The corpus is huge if one focuses on distribution, but it is quite limited for someone interested in architecture or iconography. This means that the number of temples I take into account in the chapters dealing with distribution is much larger than what I could use for the study of orientation and temple planning.

On the other hand, the amount of remains to be plotted on a map was so huge that I could not afford to check everything through field survey. For the present study, fieldwork has been carried out in the regions of Yogyakarta, Klaten, Magelang, Boyolali and Semarang (excluding Kotamadya Semarang). Data about temple remains of these areas has been gathered together in a new, up-to-date inventory (Appendix 1-3). Because distributional studies benefit from broadness of coverage, I have also introduced data concerning the surrounding regions, borrowed from older inventories

[2] In the central depression of West Java, as well as in that of the Western part of the modern province of Jawa Tengah, rivers flow either from east to west or from west to east. In the inner plains of east Java, rivers originating from the mountains meander their courses to the northeast to reach the Java sea. This is due to the fact that in all the other areas of the island, the central depression is separated from the Ocean by a mountain ridge.

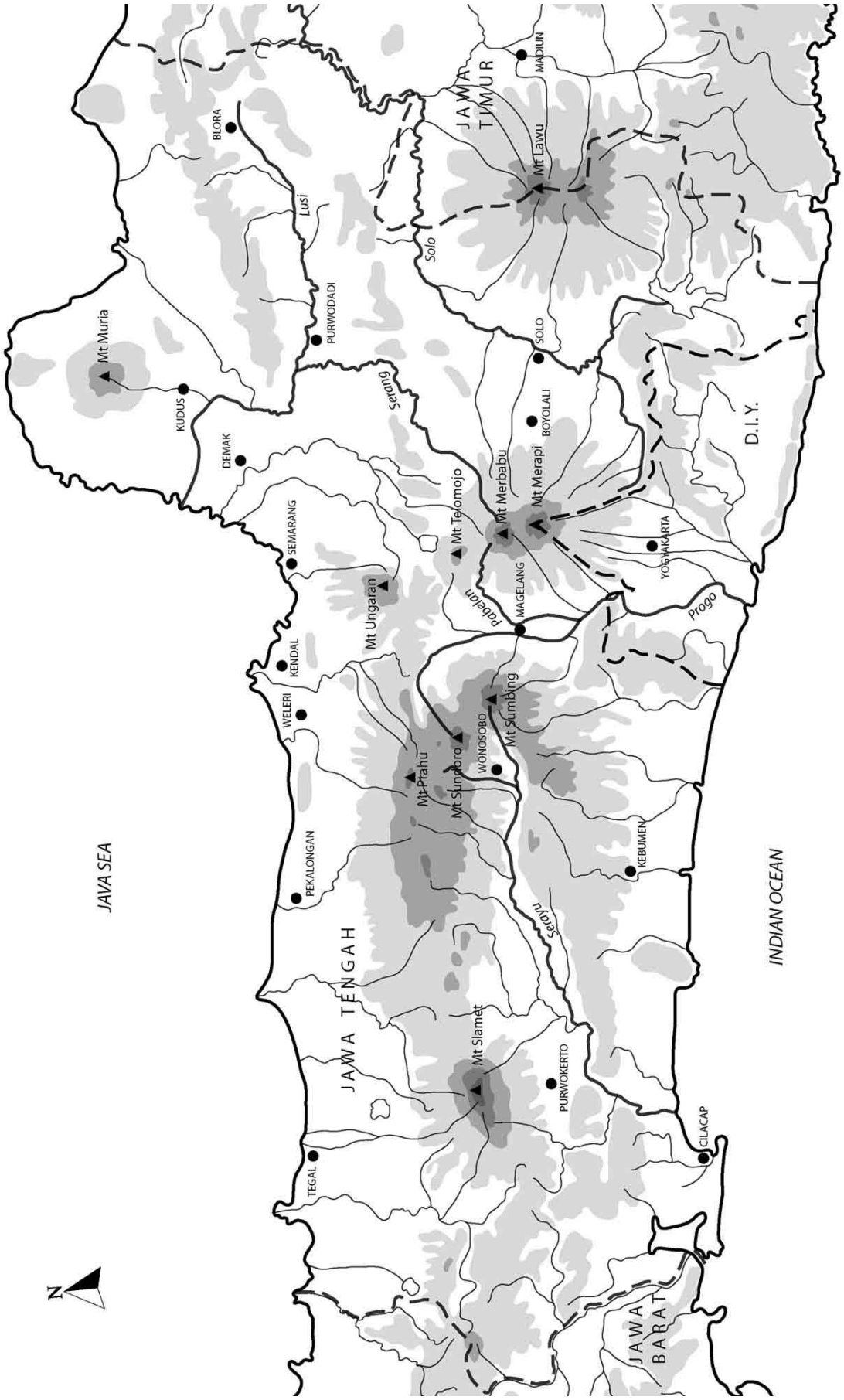

Figure 2: Morphological Map of Central Java

and, to a large extent, from the work of Baksoro Daru Tjahjono (Tjahjono 2000). Unfortunately, as the latter survey focuses on the western and southern parts of Central Java, the inventory of 1914 (Krom 1914a) is the main reference for the eastern districts. It appears that, around the modern town of Solo, very few remains are known, with the exception of the later temples of Sukuh and Ceto.[3]

The region including the DIY and the *kabupaten* of Klaten[4] counts 110 sites that can be considered as being (or having been) temple remains (Table 1). The district of Magelang contains 80 sites, Boyolali 10, Semarang 21,[5] Kotamadya Semarang 5,[6] Temanggung 23, Wonosobo 5,[7] Kendal 7,[8] Batang 4,[9] Kebumen 1, Banyumas 7, Purbalingga 1, Pemalang 2,[10] Tegal 2, Brebes 2, Purwodadi 1, Kudus 1, Purworejo 1[11] and Banjarnegara 6.[12]

However, these numbers certainly do not represent exactly the historical situation: some temples may have disappeared without leaving noticeable traces and some temple remains may have once formed a single site rather than separate sanctuaries.

Population density is a critical problem for the preservation of temple remains, and provides an advantage within the context of an archaeological survey. The region is so densely populated that ancient stones and sculptures lying on the ground can hardly go unnoticed[13]. Besides, local officials (district heads since the middle of the 19th and village heads since the middle of the 20th century) have the duty to report finds of antiquities. Furthermore, the development of building activities and its corollaries (exploitation of riverbeds as sand quarries, brick making etc.) bring new remains to light.

As both the environmental and the human conditions are approximately equivalent over the whole region, probabilities of finding temple remains are, from that point of view, quite comparable in the different districts. Only three areas might pose exceptions: the southwest slope of Mount Merapi, Yogyakarta and Semarang. The morphology of the summit of Mount Merapi favoured large mudflows in the direction of Muntilan and Yogyakarta. As the discoveries of Sambisari and Kedulan exemplify, it is possible that these *lahar* cover temples. However, it would not change the general picture much: it is already the richest area in terms of archaeological remains. As for the land now covered by the cities of Yogyakarta and Semarang, it is more difficult to estimate to what extent it conceals unknown sites. The significant urbanization of Yogyakarta is a recent phenomenon, but Semarang has long been a bustling city. With

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3 Actually only one temple dating from the Central Javanese period has been recorded: *candi* Bendo.

4 The *kabupaten* Klaten (district of Klaten) is part of the Jawa Tengah province. It is located east of Yogyakarta and South of Boyolali.

5 Including the seven temple groups of Gedong Songo.

6 Information concerning this district comes from printed sources.

7 Dieng is here counted as a single site.

8 Apart from these supposed temple sites, sculptures from the Hindu-Buddhist period have also been found in other locations within the district of Kendal.

9 Without counting the five additional sites where only sculptures have been found.

10 In these two cases, only a couple of stones have been discovered.

11 Besides these remains, which actually are composed of two stone bases and a *lingga* and a *yoni* located near the Seplawan cave, two caves of the district of Purworejo bear traces of an occupation during the Hindu-Buddhist period. In three other villages isolated *yoni* have been found.

12 Actually, four of these sites may be gathered together: the temples located on the Dieng plateau, namely the buildings of the Arjuna group, *candi* Dwarawati, Gatotkaca and Bima.

13 At the exception, of course, of the uppermost part of the volcanoes, where cultivation is very limited or even impossible.

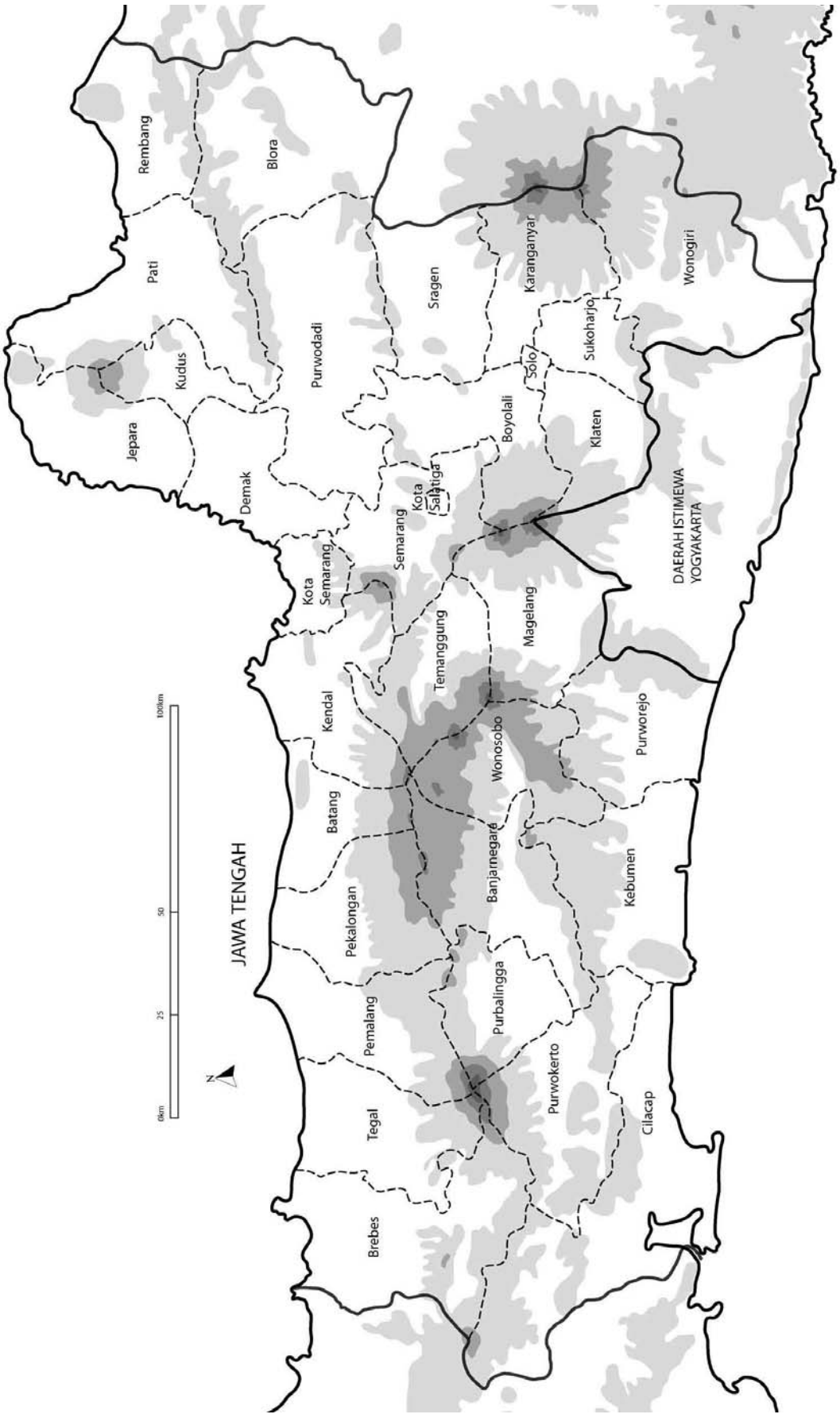

Figure 3: Administrative Map of Central Java

its ideal location along the northern coast, Semarang, still today a main port, would be a perfect location for an ancient harbour. Developing a programme of urban archaeology would probably bring interesting results here.

Another source of potential bias in our estimation of site distribution results from the use of two different building materials, namely bricks and stones. As one might guess, stone temples tend to resist the equatorial climate of Central Java better than their brick counterparts. Especially when, as it is often the case, bricks are baked at low temperature.[14] As brick temples seems to have been slightly more frequent in the district of Magelang – and maybe Semarang – it is possible that more temples vanished in this area than, for example, around Prambanan – where stone construction is more of a tradition.

The perception of Hindu-Buddhist antiquities by local populations may also have influenced the survival of temple remains. Temples are key-role attractions for the tourism industry in the DIY and around Borobudur. In those places, the perception of temples as potential sources of income may have played a role in the survival of Hindu-Buddhist remains.[15]

Southern Central Java

As mentioned earlier, resolving the question of whether remains constitute a single site or originate from different sanctuaries is not simple. In south Central Java (DIY and Klaten district), the sites at which differentiations of this kind remain doubtful are: 1) Burikan, Jumeneng, Konteng and Candi; 2) Maron and Ngepos; 3) Sumur Bandung and Ijo.

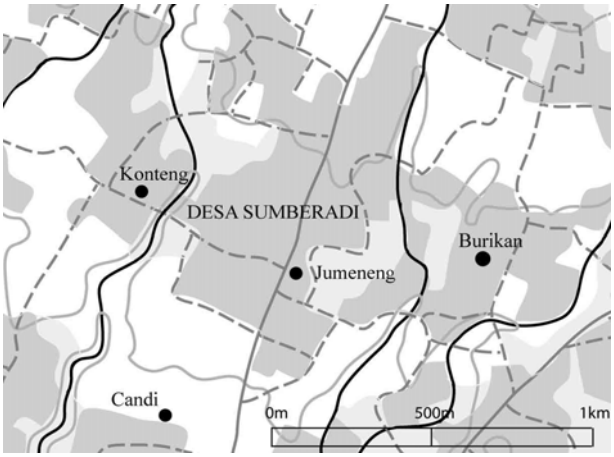

Figure 4: Location map of the temple remains at Burikan, Jumeneng, Konteng and Candi (Sumberadi, Mlati, Sleman, DIY)

Burikan, Jumeneng, Konteng and Candi are four hamlets, located within *desa* Sumberadi (*kecamatan* Mlati, *kabupaten* Sleman), where loose temple stones and sculptures have been found (Figure 4). The distance between the different hamlets is short: Jumeneng is located 600m from Burikan, 500m from Konteng and 600m from Candi. Apart from this close proximity, the nature of the stones could also be revealing. Plain blocks were found only in Burikan and Konteng, while only carved stones were found at Candi, and only sculptures at Jumeneng. Only Burikan shelters a large variety of stones: plain blocks, fragments of finials, antefixes, *yoni*, *makara*, a statue of Śiwa and

[14] I have not carried out an extensive and systematic study of the subject, but I have noticed that in some of the bricks used to build *candi* Retno and Ngampin, the actual rice shaft used as temper was still present – and not its mere trace, suggesting low baking temperatures.

[15] Ther might be more than just an ecomic reason. During my fieldwork, I noticed at several occasions that the status of *juru kunci* (guardian) of site was still a mark of status in the villages of the DIY (especially in *kabupaten* Gunung Kidul. I didn't notice it in Jawa Tengah.

that of a goddess, as well as earthen jars that could have been part of a temple deposit. It is therefore possible that we are not dealing with the remains of four different temples, but rather two (at Konteng and Burikan) or even only one (at Burikan).

The spreading of stones belonging to a single temple over a distance of more than 1km is not surprising: antefixes from *candi* Merak were found in *dusun* Bogor, 1km away from their original site, and other carved stones belonging to the same temple were used to build a crossroads 2km north of Merak (Perquin 1927b: pl. VII). Although carved pieces have always been favoured by those who would remove stones from their sites, plain blocks have also travelled quite far from their original location. During fieldwork in the village of Pringapus, near Salaman (Magelang, Jawa Tengah), I noticed a garden fence made of nice andesite blocks. When I questioned the owner, I was told that a family member used to work in the area of Borobudur and brought the blocks back from there, i.e. 9km away from their present location.

A second case of dubious differentiation is Maron and Ngepos. The two hamlets are located roughly 600m from one another, in *desa* Donoharjo, *kecamatan* Ngaglik, *kabupaten* Sleman. In Maron a few loose temple stones were found, together with a Kāla (Verbeek 1891:163), while in Ngepos plain stone blocks, a *lingga*, a Durgā, 2 Gaṇeśa, 2 bulls and a male figure were once visible (Bosch 1915a:18; *Daftar Peninggalan Benda DIY* 1985: 96, 98, 103). Again, the proximity of the sites and the fact that elements show greater variety in Ngepos might suggest that we are dealing with the remains of a single structure, although this cannot be regarded as a certainty.

Sumur Bandung and Ijo reflect a different situation. Sumur Bandung is located 150m away from *candi* Ijo. The only thing visible there is the foundation of a wall, although two sculptures were once found on this spot, a Narasingha and a Triwikrama (Santoso 1992:58). Remains of the Ijo complex have not been entirely explored yet and there are strong possibilities that the wall of Sumur Bandung is actually part of an enclosure wall linked to *candi* Ijo.

Therefore, for the regions of Yogyakarta and Klaten, we might actually not have 110 temple sites, but, rather, 105. The possibility that remains found in different villages belong to a single structure should be kept in mind while analysing the distribution patterns and the site density in a particular area: lots of dots on a distribution map might not always reflect a concentration of temple remains, but a misinterpretation of the archaeological data. The problem only becomes more important if one introduces location of movable artefacts (especially sculptures and metallic objects) found outside an archaeological context. Even the discovery of such materials buried in the ground does not guarantee that they are *in situ* – the first thing would be to try to determine how, why and when they were buried.

Progo Valley

Those problems are, of course, not limited to southern Central Java. In Magelang, several sites are so close to each other that, in the absence of *in situ* remains, it is almost impossible to determine if there used to be one or several temples – and, if only one, in which village it was located.

Dipan, for example, is located 700m from Jowohan and Barepan is only 600m further away. A brick base has been discovered in Dipan, but only loose bricks were found in Jowohan, and only one *yoni* in Barepan. It is possible that the bricks and the *yoni* originally came from a temple located in the village of Dipan, and that Jowohan and Barepan should not be counted as separate sites.

The situation is similar in the following cases: 1) Kanggan and Karangrejo (located 500m away from one another), 2) Wurung, Mulosari and Pringapus, 3) Dimajar and Samberan, 4) Cetokan and Retno, and, finally, 5) Singabarong and Mantingan. Based on this, the amount of temples in the district of Magelang might be reduced to 74 instead of 80.

In Temanggung, Verbeek was already of the opinion that the temple stones used for the construction of the mosque of the village of Brongkol had been taken from a temple located in Wonokerso (Verbeek 1891: n° 252 and 256). Similarly, many artefacts (chiefly sculptures and antefixes) that are now to be found in the village of Candi (Parakan, Temanggung) were most probably gathered from the neighbouring villages of Bongkol, Bumen and Gunung Kembang, where temples once stood. However it is nowadays impossible to trace the origin of each sculpture.

Sometimes, however, it may work to the opposite effect, as in the case of *candi* Pringapus and Perot. In the late 19th centuries, two temples were standing in Pringapus, a village in the neighbourhood of Ngadirejo: *candi* Perot and *candi* Pringapus (Hoepermans 1913:160; Krom 1914a: nº 959). *Candi* Perot was located within the hamlet of Candi, while Pringapus was several hundred meters to the east. Today, however, there is a nice row of stones just in front of *candi* Pringapus. When the tree growing on *candi* Perot was blown over by the wind, the temple collapsed (Krom 1923, I: 209). Some time after this event, the villagers moved the stones of Perot to the temple site of *candi* Pringapus.

In the present book, the unit of analysis is the site. On the various maps, each black spot marks a (religious) site, not a building. The choice of a unit of analysis is a tricky one, since both the site and building have, for my purpose, advantages and disadvantages. The main positive point of using the building as unit is its objectivity. It is an object easily defined and identifiable.[16] By definition it also gives a more accurate picture of the temple density; the reader becomes more aware of the differences between the built landscape of the Prambanan area and that of the Progo valley. However, beyond this seeming objectivity, the building, as unit of analysis, tend to deform some essential parameters. By giving the same importance to a subsidiary shrine than to the main temple (a simple dot on a map), it may distort our perception of the settlement patterns (multiplication of dots being likely to be confused with the existence of numerous villages) and confuse the study of temple orientation. It also erases the physical relationship existing between the buildings of a single temple complex. Opting for the site as unit of analysis is, on the contrary,

[16] Although one might discuss the case of the *stūpa*, since it does not correspond to the usual perception of a building as a structure with a roof and walls.

Table 1: List of Central Javanese temple remains

D.I. Yogyakarta

Abang	Grogol	Maron	Sambiroto
Arca Ganesa	Gunung Mijil	Miri	Sambisari
Balangan	Gupolo	Miring	Sampangan
Banyunibo	Ijo	Morangan	Sanan
Barong	Jatiwangi	Mulungan Wetan	Sari
Bogem	Jetis (Cangkringan)	Ngaglik (Mlati)	Sawo
Besalen	Jetis (Nglempak)	Ngaglik (Prambanan)	Semarangan
Bugisan	Jetis (Sleman)	Ngepos	Sentono
Burikan	Jetis (Wonosari)	Ngesong	Singo
Candi (Mlati)	Jumeneng	Nogosari	Sosrokusuman
Candi (Ngaglik)	Kadisoka	Palgading	Sumberwatu
Candi (Pakem)	Kalasan	Panggeran	Sumur Bandung
Candirejo	Karangtanjung	Payak	Susukan
Cebongan	Karang Tengah	Planggak	Tanjungtirto
Cepet	Keblak	Plaosan	Tangkisan
Condrowangsan	Kedulan	Plembutan	Tawangrejo
Cupuwatu	Kepitu	Plumbon	Tegalsari
Dawangsari	Klaci	Polangan	Tinjon
Dengok	Klodangan	Polengan	Wadas
Gajah	Konteng	Pondok	Warak
Gampingan	Krapyak	Pringtali	Watugilang
Gatak	Lengkong	Punden	Watugudig
Gebang	Loro Jonggrang	Puren	Wiladeg
Glagah	Malang	Ratu Boko	Wringinrejo
Grembyangan	Mantup	Risan	

Klaten

Bubrah	Karangnongko	Merak	Sojiwan
Gana	Kulon	Plaosan Kidul	
Kaliworo	Lor	Plaosan Lor	
Kalongan	Lumbung	Sewu	

Magelang

Asu	Giombong	Krincing	Retno
Banon	Gombong	Lumbung	Salakan
Barepan	Gunung	Mantingan	Samberan
Batur	Gunung Gono	Mendut	Seketi
Batu Rong	Gunung Lemah	Mulosari	Selogriyo
Bengkung	Gunung Pring	Mungkidan	Semawe
Blaburan	Gunung Sari	Nambangan	Setan
Bobosan	Gunung Wukir	Ngampel	Sidikan
Borobudur	Jeronboto	Nganten Kidul	Singabarong
Bowongan	Jlegong	Ngawen	Sigentan
Bringin	Jomboran	Ngrajek	Soborojo
Brongkol	Jowahan	Pakem	Sumber
Candi	Kalangan	Pawon	Tempurrejo
Cetokan	Kalimalang	Pendem	Tiban
Dampit	Kanggan	Pirikan	Tidaran
Dimajar	Kaponan	Plandi	Tumbu
Dipan	Karangrejo	Pringapus	Umbul
Gedongan	Kemiren	Progowati	Wates
Gedungan	Kendal	Pucanggunung	Wurung
Gejagan	Ketoran	Rambeanak	

Boyolali

Cabean Kunti	Kuwarigan	Pahingan	Tampir
Candipetak	Lawang	Sari	
Candirejo	Mangis	Sumur Songo	

Temanggung			
Argapura	Gondosuli	Ngabean	Plikon
Bongkol	Gunung Kembang	Ngepoh	Pringapus
Brongkol	Gunung Pertapan	Nglarangan	Tlahab
Bumen	Jamus	Perot	Traji
Butuh	Karangbendo	Piatak	Wonokerso
Candi	Kedunglo	Pikatan	
Semarang		Banyumas	
Arca Ganesa Besar	Ngempon	Aracwinangun	Tugu
Bedono	Ngentak	Banyumudal	
Butak Wetan	Renteng	Candinegara	
Dukuh	Sanjaya	Kalibening	
Gedong Songo	Sidomukti	Kaliduren	
Gentong	Wujil	Kaliencit	
Kaliklotok		Lembu Ayu	
Wonosobo		Kotamadya Semarang	
Bongkottan	Dieng	Candi	Ngresep
Candi	Karangsari	Duduhan	Tugurejo
Candi Bogang		Kangkung	
Kendal		Banjarnegara	
Ganawerti Wetan	Krincing	Banjarkulon	Karanggodang
Gunung Gentong	Nglimut	Candiagung	Karangpucung
Jumbleng	Pengilon	Codong	Kromong
Kentengsari			
Batang	Pemalang	Tegal	Brebes
Bendosari	Banyumudal	Bantarsari	Karangdawa
Kauman	Kalilingseng	Muncang Larang	Krikil
Kecepit	Plawangan		
Simangli			
Purwodadi	Kudus	Purworejo	Kebumen
Medang Kemulan	Prawat	Gua Gong	Kemijing
Purbalingga			
Brengkol			

underlining this link, recognizing the architectural unity wanted by the constructors. It is, however, difficult to define with precision and objectivity what a site is. In this book the term "(religious) site" is used to designate an isolated shrine, a series of shrines enclosed within wall or a series shrines built next to one another and organized according a recognizable pattern. According to this understanding of the term, *candi* Pawon (an isolated shrine of the Muntilan area) is a site on the same basis than Loro Jonggrang (an impressive sanctuary composed of 232 shrines enclosed within a series of three walls) and Gedong Songo III (a group made of two shrines in a line and a secondary structure facing the main temple). On the other hand, the temples of Asu, Lumbung and Pendem, in the village of Candi Pos (*kabupaten* Magelang), although they are also known under the generic name "*candi* Kuning", are considered as three separate sites, just as the different temple groups of Gedong Songo.

State of Preservation

The state of preservation of the temple remains varies greatly from site to site and from one region to another. In southern Central Java (DIY and Klaten), 50 temples out of the 110 listed are no longer visible (45.5%), while 19 (17%) are loose, scattered stones. In only 41 cases (37.5%) remains are still partly *in situ* (Table 2). In the district

Figure 5: Remains of miniature shrines at Mantup (Bantul, DIY) – June 2002

Figure 6: Candi Retno (Secang, Magelang) – April 2003

of Magelang, 53,75% of the sites have vanished (43 sites), 27.5% are now loose stones (22 sites) and 16,25% are constituted by *in situ* remains (13 sites).[17] In Boyolali, out of the 10 temple remains, 3 have disappeared, 2 are reduced to scattered stones and 4 are still present as *in situ* structures.[18] In Semarang, out of the 20 sites, 4 are no longer visible, 6 are mere loose stones and 9 are *in situ*.[19]

For the areas outside the scope of my fieldwork, the data derived from the Dutch inventories and the work of Tjahjono suggests that the vast majority of the sites is composed of loose architectural elements. In 2000, apart from the relatively well-preserved temples at Dieng (in Wonosobo district) and Pringapus (in Temanggung), only 3 sites present *in situ* remains: Bantarsari (in Tegal), Karangdawa (in Brebes) and Gua Gong (in Purworejo).

From the point of view of preservation, the fate of temple remains has been slightly better in the area of Yogyakarta than elsewhere in Central Java. This state of affairs probably does not have a natural origin: volcanic hazards and landslides are at least as frequent in Yogyakarta as in Magelang. Part of the explanation may lie in the fact that, for the small province of D.I. Yogyakarta, tourism is an important source of income. The role of tourism within the local economy might have stimulated a greater consciousness of the value of archaeological remains. Another relevant variable is that almost all the temples of the region of Yogayakarta are made of stones, while more fragile brick structure are relatively frequent in Magelang and Semarang.

Table 2: General state of preservation of temple remains per province/*kabupaten*

Province/kabupaten	*Total*	*Disappeared*	*Loose stones*	*In situ*
DIY/Klaten	110	50 (45.5%)	19 (17%)	41 (37.5%)
Magelang	80	43 (53.75%)	22 (27.5%)	13 (16.25%)
Semarang	20	4	6	9
Boyolali	10	3	2	4

Southern Central Java

In southern Central Java, among the 41 sites that preserve *in situ* remains, only 23 structures are relatively well-preserved (at least up to the foot of the temple body), which represents a mere 1/5 of the total number of sites. In other words, while there is enough data to create a distribution map giving a fair idea of the ancient built landscape, the information available for the study of both orientation and spatial organization is more limited. In many cases only a few layers of stones are preserved (Figure 5). Sometimes, the *in situ* remains are even limited to a mound of earth mixed with stones or bricks (Table 3).

The present list contrasts with the older inventories. Both Verbeek and Bosch listed 44 temple sites in their work (Verbeek 1891; Bosch 1915a).[20] Among the 44 temple remains mentioned by Verbeek for southern Central Java, 12 were loose stones, while 15 were "completely collapsed",[21] 10 were "collapsed"[22] and only 7 were still standing (namely Jetis, Kalongan, Loro Jonggrang, Lumbung, Plaosan Lor,

[17] I have not been able to visit Baturong and Gunung Lemah, so their present state of preservation is not known.

[18] I have been unable to identify the location of Candirejo, Boyolali.

[19] I have been unable to locate Gentong.

[20] The other sites mentioned in the old inventories are find-spots of sculptures and metallic objects or collections of artifacts.

[21] "Geheel vervallen".

[22] "Vervallen".

Sewu and Watugudik).[23]

To Verbeek's list, Bosch adds three newly found temple remains (then still *in situ*): Cebongan, Cupuwatu and Plumbon.[24] He also noticed that most of the structures seen by Verbeek in the valley of the Sorogeduk/Gawe River (south of Prambanan, along the northwestern edge of the Gunung Kidul) had disappeared: Grembyangan, Krapyak, Nogosari, Polangan, Polengan, Sawo, Semarangan and Tinjon.[25] This was also the case for *candi* Kulon and Lor, in the vicinity of Sewu.

Even though some temples were in a better state of preservation in Verbeek's time than today, excavations carried out before and after World War II have extended our knowledge of some important structures. Banyunibo, Barong, Gebang, Ijo, Loro Jonggrang, Plaosan Kidul, Plaosan Lor, Ratu Boko, Sewu, and Sojiwan, all of which used to be in a critical state of decay, have been (or are being) restored with some success.

Sixty-six remains have been added to the 44 temple sites mentioned in the older inventories for the area of Yogyakarta-Klaten. Most of them are no more than gatherings of loose stones, but some are *in situ* structures still clearly visible. This is the case with Gampingan and Payak in *kabupaten* Bantul, Dengok and Plembutan in *kabupaten* Gunung Kidul, Kaliworo and Merak in *kabupaten* Klaten, Glagah and Sambiroto in *kabupaten* Kulon Progo, and, finally, Dawangsari, Gebang, Kadisoka, Kedulan, Lengkong and Sambisari *kabupaten* Sleman.[26]

Table 3: State of preservation of *in situ* temple remains in southern Central Java (DIY and Klaten)

State of preservation	*Amount*	*Site names*
Mound	5	Abang, Dengok, Plembutan, Sambiroto, Tinjon.
Foundation	1	Sumur Bandung.
Base only	10	Dawangsari, Gana, Glagah, Kadisoka, Kaliworo, Karangnongko, Klodangan, Miri, Ratu Boko, Watugudig.
Base and temple foot	4	Bubrah, Gampingan, Mantup, Risan.
Base and temple body	5	Kedulan,[27] Lumbung, Merak, Morangan, Sojiwan.
Up to superstructure	14	Banyunibo, Barong, Gebang, Ijo, Kalasan, Lengkong,[28] Loro Jonggrang, Payak,[29] Plaosan Kidul,[30] Plaosan Lor, Pringtali,[31] Sambisari, Sari, Sentono,[32] Sewu.

[23] According to the spelling used by R.D.M. Verbeek: Djětis, Watoe goedig, Prambanan, Sewoe, Loemboeng, Plaosan and Kalongan.

[24] According to the spelling used by F.D.K. Bosch: Tjebongan, Ploembon and Tjoepoe Watoe.

[25] Actualy, loose stones from *candi* Semarangan, Sawo and Nogosari are still visible today, while *in situ* remains of *candi* Tinjon are still standing along the road leading from the plain of the Sorogeduk to *candi* Ijo. That Bosch thought that Tinjon had disappeared is easily explainable: the site is quite far from *dusun* Tinjon, and most inhabitants of *desa* Tinjon do not know its existence. This mere mound of earth and stone fragments is not easily noticeable either.

[26] Dengok, Plembutan, Glagah, Sambiroto, Kaliworo, Gampingan, Payak, Kadisoka, Sambisari, Kedulan, Dawangsari and Lengkong were discovered by the Indonesian archaeological services, while the other sites were excavated before World War II by Dutch archaeologists.

[27] This temple is under restoration work and will probably be restored up to the superstructure, given the number of stones preserved.

[28] *Stūpa*.

[29] Bathing place.

[30] Two secondary shrines were restored up to the superstructure, while the central structure has disappeared.

[31] Miniature temple.

[32] Cave.

Magelang

In the district of Magelang, temples are usually not as well preserved as in southern Central Java (Table 4). During the last century, the number of visible remains has drastically decreased, so that, in the attached inventory, most of the sites are recorded on the basis of the older information taken from Krom and Verbeek. In his inventory, Krom mentioned 45 sites showing *in situ* structures. Nowadays, only 13 structures are still to be seen. In 22 other cases, the amount and variety of the scattered stones testify to the former presence of an ancient building.

Table 4: State of preservation of *in situ* temple remains in the district of Magelang

State of preservation	*Amount*	*Site names*
Foundation	1	Wurung.
Base only	4	Gunung Sari, Gunung Wukir, Retno, Samberan.
Base and foot	3	Asu, Lumbung, Pendem.
Base and temple body	1	Ngawen.
Up to the superstructure	4	Borobudur, Mendut, Pawon, Selogriyo.

A couple of new sites, such as Samberan, have been identified by Indonesian archaeologists. Furthermore, more recent archaeological excavations have widened our knowledge of certain sites already known through Dutch inventories. This is the case, among others, with Gunung Sari, where several buildings have been discovered; Wurung, where an octagonal brick foundation has been brought to light; and Retno, where the temple plan is now known (Figure 6).

One of the greatest losses for the region – and for Javanese archaeology -- is certainly the disappearance of *candi* Setan. Nothing is left of this temple, which was still partly standing in the early 20th century. The site, described by N.J. Krom, was composed of a single elongated brick terrace on which stood 7 temples in a row. The central temple measured 4.85m and was flanked on each side by 3 smaller shrines (Krom 1923, I: 408; 1914a: 236; 1914b: 56; 1914c: 189). Such an organization is, to my knowledge, unique in Central Java. Given that no less than fourteen sculptures of Gaṇeśa were found at the site, the Dutch scholar was of the opinion that the temple was dedicated to the elephant god, which would also be unique in Java (Krom 1923, I:408).

Kabupaten Boyolali

The region of Boyolali is not particularly rich in archaeological remains and, in terms of visible sites (Table 5), the situation is roughly the same as at the beginning of the last century. Intensive restoration programs have, however, transformed Lawang as well as Cabean Kunti, turning the former heaps of stones into standing buildings.

Table 5: State of preservation of *in situ* temple remains of *kabupaten* Boyolali

State of preservation	*Amount*	*Site names*
Foundation	2	Sari, Sumur Songo.
Base and foot	1	Lawang.
Up to the superstructure	1	Cabean Kunti.

Kabupaten Semarang

In the *kabupaten* of Semarang, the *in situ* temple remains that were once visible in Butak Wetan, Klero, Renteng and Sidamukti have disappeared. The latter site had already been destroyed in the early 20th century: its stones had been used by the

Topografische Dienst for the construction of a topographical marker (Krom 1923, I: 222). On the other hand, two new sites, Ngampin (Dwiyanto, Nitihaminoto, Pinardi 1981) and Ngempon (Soekmono 1951-1952:19) have been discovered and excavated by the archaeological service of Indonesia (Table 6).

Table 6: State of preservation of *in situ* temple remains of *kabupaten* Semarang

State of preservation	*Amount*	*Site names*
Base	2	Dukuh, Gedong Songo VII.
Base and foot	1	Gedong Songo V.
Base and temple body	1	Ngempon.
Up to the superstructure	5	Gedong Songo I, II, III, IV and VI.

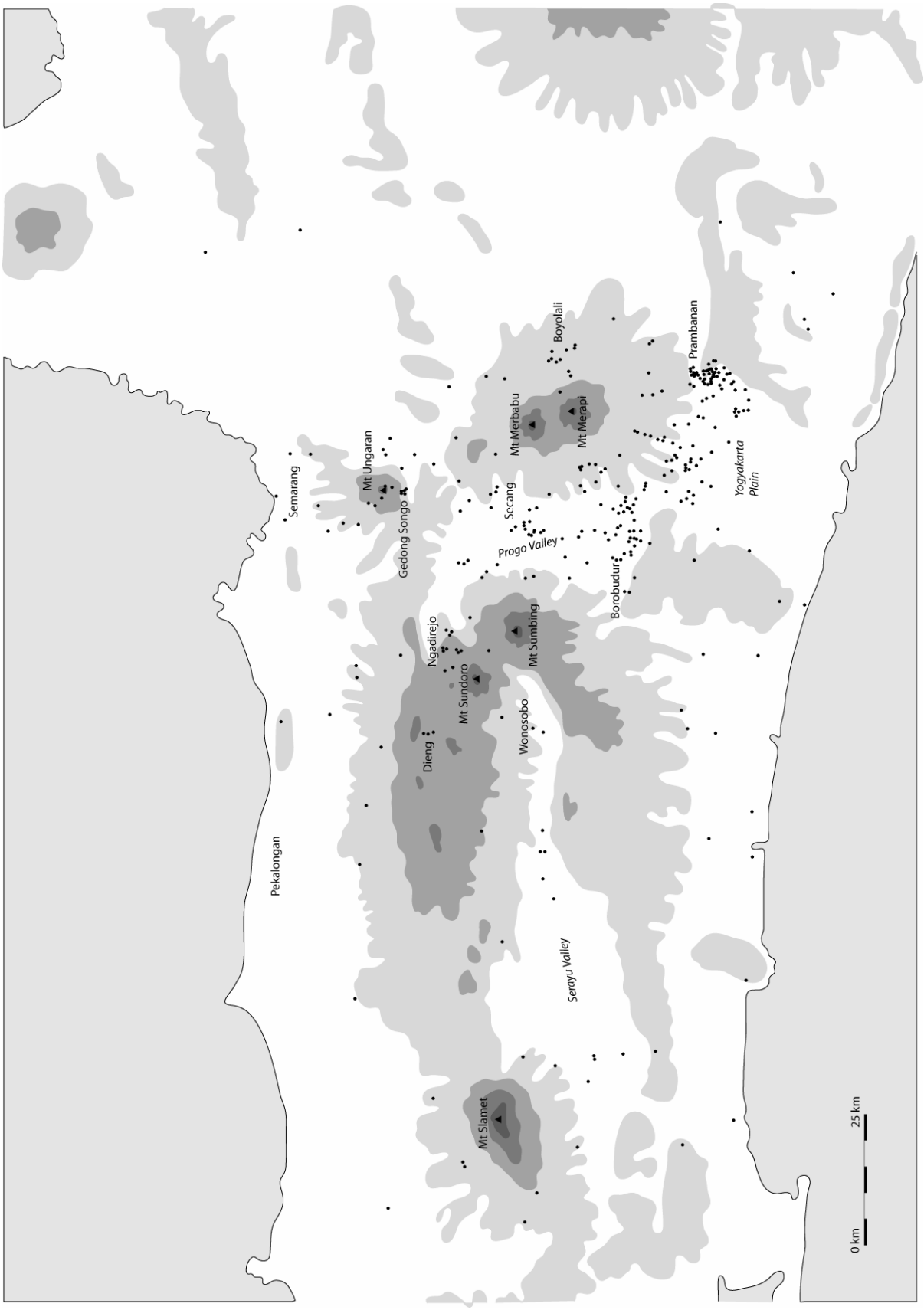

Figure 7: General distribution of Central Javanese temple remains