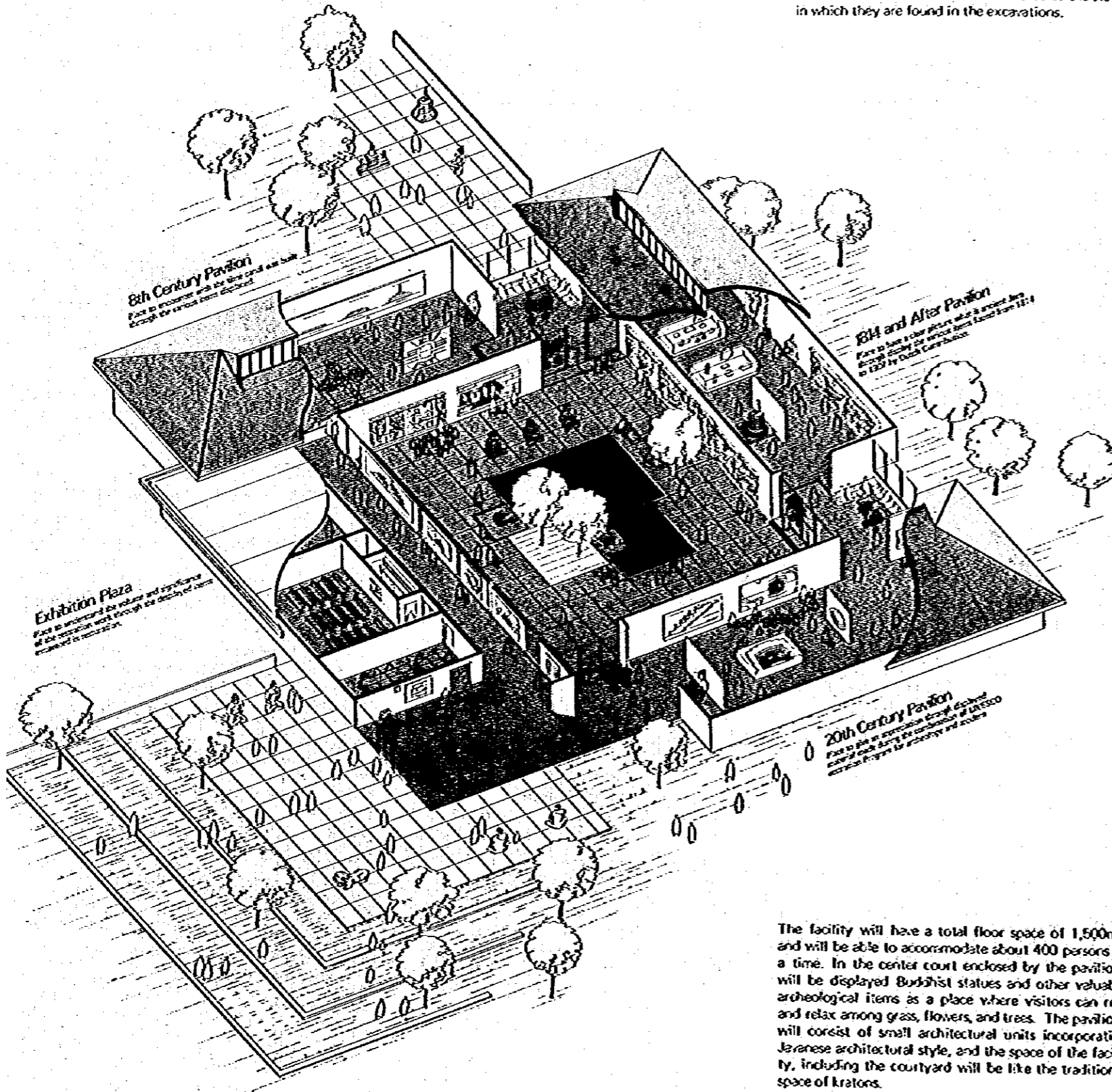


# Borobudur Archeological Museum

This facility will consist of three pavilions, one commemorating the great feat of restoration of Candi Borobudur through film, model, and other presentations regarding the restoration process itself, the results achieved, and the modern technical methods employed, another with displays regarding the candi as it originally stood in the 8th century after its mysterious birth as well as its religious, historical, and cultural background, and still another with presentations on the subject of the various archeological discoveries, restoration work, etc. since Raffles's discovery in 1814.



## Exhibition Plan Policy

- (1) Provision of a place for direct experience and understanding of spatial relations in ancient times.
- (2) Reproduction not only of the monuments themselves but also sound, light, and other environmental conditions to serve as a stage for presentations that will make possible understanding through all of its senses.
- (3) Special Monument Exhibition Areas: Exhibition of how excavation work is done, the methods employed, and comparison of the state of the monuments and artifacts as restored to the state in which they are found in the excavations.

The facility will have a total floor space of 1,500m<sup>2</sup> and will be able to accommodate about 400 persons at a time. In the center court enclosed by the pavilions will be displayed Buddhist statues and other valuable archeological items as a place where visitors can rest and relax among grass, flowers, and trees. The pavilions will consist of small architectural units incorporating Javanese architectural style, and the space of the facility, including the courtyard will be like the traditional space of Kraton.

# 8th Century Pavilion

In the "8th Century Pavilion" you have an encounter with the times in which the candi was built through displays of excavated items and literature on those times, judging the background and origins of the candi and a cultural ties then with the continent.

## The Name "Borobudur"

The meaning of "Borobudur" remains vague. It is a compound of the words *bara* and *budur*. "Bara" is from the Sanskrit "Vihara", meaning a complex of temples and monasteries or dormitories (Poerbatjakra and Stutterheim), whilst "budur" reminds us the Chinese "beduhur", meaning "above". Accordingly *borobudur* means dormitory, monastery or complex of temples on a hill. Indeed remnants of an edifice probably a monastery were discovered in the North-West part of the courtyard.

G. de Casparis has offered an explanation based on the inscription of Ciri Kahulunan (842 A.D.). The name *borobudur* apparently derives from the one mentioned in the inscription, only the name given there is not complete; the full name of the sanctuary must have been "Bhumisambharabudhara" "the Monasteries of contemplation of Virtue on the ten stages of the Bodhi-tva". In addition to this there is a village not far from Borobudur called *Bumisegara*.

## Date of Construction

No written documents whatsoever on the construction of Candi Borobudur survive. Nor are there any references to the authority who had it built or the purpose for which it was intended. However, inscriptions carved above the reliefs on the "hidden foot" of the monument have graphical features similar to those in the script commonly used in royal charters between the last quarter of the eighth century and the first decades of the ninth. The obvious conclusion is that Candi Borobudur was very likely founded around the year 800 A.D.

His assumption accords quite well with Indonesian history in general and the history of Central Java in particular. The 750-850 period was the Golden Age of the Sailendra dynasty. It produced a great number of monuments, which are found all over the plains and the mountain slopes of Central Java. Siva sanctuaries pre-eminence in the mountain regions; in the Kedu Basin and Prambanan Plain, both Sraite and Buddhist monuments were erected close together.

## Significance and Function

From a historical point of view Borobudur is connected with both Indian and prehistoric Indonesian monuments. In India, certain edifices are found, called stupas, which are related to the Buddhist religion and served as:

- repositories for relics (things, clothes, bones or ashes of the Buddha, Arhat and outstanding bhiksus). It is also called *dhatugarbha*, *dagoba*.
- sanctuaries, places of worship for the Buddha and Sangha.
- divine symbols of Buddhism.

Ordinary people worshipped the stupa for itself and was accordingly called: *caitya*.

As a matter of fact, Borobudur is also a stupa, but it has undergone a long range of modifications, and therefore its structure differs from those in other Buddhist countries. This peculiar structure consists of ten stages, which make it comparable in shape to a terrace pyramid. Many Indian stupas have a terraced base. It is noteworthy, however, that terrace sanctuaries were rarely built in prehistoric Indonesia and that they continued varying in shape through much of Indonesian history. Borobudur, constructed as a stupa on a step-pyramid, is apparently the product of the mixture of the two cultures.

## The Stone Materials of Borobudur

The Progo River, which runs through the Kedu Basin from the north to the south, and its tributary, the Eto, which runs into it at the foot of Borobudur Hill, have brought to this area, together with sand, gravel, and other alluvial materials, pieces of andesite rock of different sizes thought to be the product of repeated explosions of volcanic Mt. Merapi, and even today there is a broad area to the east of Borobudur where a large number of such rocks can be found strewn over the ground.

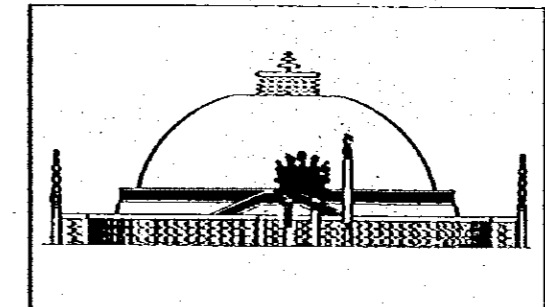
It appears that this kind of rock was used in the building of Candi Borobudur after being cut into proper size blocks either on the banks of the river or at the site itself. As for the size of these blocks, those used for surface finishing had a standard thickness of 22-23cm, a length varying from 140cm in the case of the hidden foundation buried under the ground to 30cm in the case of the upper level circular terrace but for the most part measuring about 60cm, and a standard depth of 30-35cm. The blocks used to fill in the interior were much coarser in finish, and most of them measured about 22cm by 25cm by 35cm.

It is only natural that these stone materials should have varied considerably in mineral composition and physical and chemical characteristics from eruption to eruption and even when they were produced by the same volcanic eruption. Nor is it difficult to imagine the great pains that it took to gather even from the near vicinity of the building site the estimated 55,000m<sup>3</sup> of such rock that went into the construction of Candi Borobudur. Then again, one should not be surprised to learn that the farther up the monument one goes, the smaller the blocks become, evidently because of transportation difficulties, and the poorer they became in quality.

The fact that the only building material used for Candi Borobudur was this andesite rock, as was also the case with most of the other candi in Java, contrasts sharply with the fact that at the Angkor ruins in Cambodia, for instance, use was made of laterite rock blocks for the interior and of sandstone blocks for the surface finishing.

## Origin of Candi Borobudur

The structure has many characteristics of the Central Javanese style (700-950 A.D.) and has been compared with nearby temples that have inscriptions. It's related to both the Indian monuments of northwest India (the terraced bases of Indian stupas) and also with the terraced sanctuaries of prehistoric Indonesian art. A complicated, cluttered example of a stupa and replica of the universe, it has little else in common with other Buddhist temples in India or S.E. Asia. Persian, Babylonian and Greek influences can be seen in Borobudur's art and architecture. Planned by men with a profound knowledge of Buddhist philosophy, on it Buddha and Shiva are spiritually the same being. This giant monument served the purpose of veneration, worship and meditation, an achievement of the *Vajrayana* sect of the Tantric School of Buddhism which emerged in the 7th Century and found acceptance in Indonesia around 700 A.D.

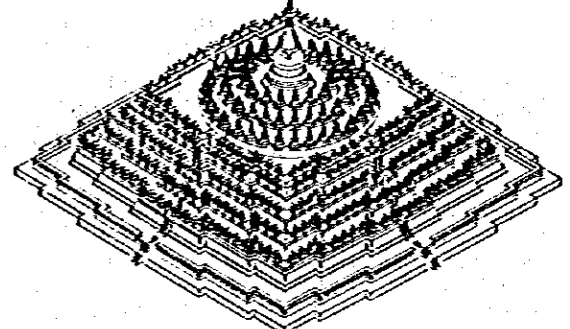


Stupa of Ancient India

## Form: Replica of the Universe

Borobudur has been built on top of a hill and has the form of a step pyramid. Quite different from many other sanctuaries, Borobudur has neither a clearly marked entrance nor a room to receive visitors. It is a massive structure. When people wanted to fulfil their religious duties they had to do so in the open air on the processional path around the monument. On four sides flights of steps and gateways lead to the top of the step pyramid.

Seen from the outside, Borobudur recalls the most elementary form of a stupa, but it differs from the usual one with the form of a hemisphere, since its structure consists of a step-pyramid of six rectangular storeys, three circular terraces and a central dagob forming the summit. But all these parts form a unity and as a whole the Borobudur resembles a stupa. Besides being the highest symbol of Buddhism, the Borobudur stupa is also a replica of the universe.



## Kedu Basin was a Huge Lake?

The popular belief in the existence of a processional path does not tally with the hypothesis, put forward by Nieuwenkamp in 1931, that the Kedu basin was once a huge lake. He suggested that Candi Borobudur originally represented a lotus flower floating on the surface of the lake, the mythical lotus from which the future Buddha will be born. This idea was based on his discovery that the ground-plan of the monument depicted a lotus rosette and petals around a circular flower-bed, while its situation on top of a hill suggested a lotus floating in the air. Moreover, soundings and levellings indicated that villages in the area that had names commencing with the word *tanjung* ("cape") are all located just above a common elevation line, viz. 135m above sea level. And so, remarkably enough, are the monuments Candi Pawon and Candi Mendut.

Nieuwenkamp came to the conclusion that the Kedu basin beneath the 235m elevation line was once a lake on which the Borobudur monument "floated". Candi Pawon and Candi Mendut were situated on the banks of the lake. The identification of Candi Borobudur with a lotus flower floating in the middle of a lake sounds fantastic, but there was in fact a lake near the monument. Fierce opposition to Nieuwenkamp's hypothesis provoked further geological investigations in the area around the monument which produced some further evidence in favour of the hypothesis, though not in regard to the extent of the lake. In this respect, a final conclusion still awaits more extensive and specific research.

## The Borobudur into Oblivion

For about a century and a half the Borobudur had been the spiritual centre of Buddhism in Java. With the fall of the kingdom of Mataram, 1919 A.D., and the shift of political and cultural activities from Central Java to East Java divine monuments in Central Java, including the Borobudur had been completely neglected and given over to decay. The sanctuary was exposed to volcanic eruptions and other ravages of nature. Vegetation destroyed the stones, a part of the monument, especially the upper parts collapsed, while other parts were buried. People lost interest in the Borobudur, it fell into oblivion.

## 1814 and After Pavilion

This pavilion covers the period between 1814, when the Dutchman Raffles discovered the candi, bringing it back into world history, and 1907, when the Dutch undertook its first restoration. During that period many important discoveries were made that shed light on Indonesia's ancient history, and as we follow the story of the research that was done in those days, we get a clear picture of what Java was like at the dawn of its history.

### Rediscovery by Raffles 1814

At the beginning of the 18th century the Javanese once more began to take interest in Borobudur, as can be deduced from some manuscripts dating from that period. In the Babad Tanah Jawa mention was made of Mas Dana who rebelled against Pakubuwana I (1709 - 1710). He was captured at "redi Borobudur", the mount of Borobudur. Fifty years later, 1757 - 1758 a nobleman from Yogyakarta travelled to Borobudur to see the thousands of statues. Since the period of Sir Th. St. Raffles (1814) attempts were made to remove the earth and underbrush and to draw plans and make descriptions.

### Many Efforts for Research and Preserving

For the Borobudur the nineteenth century marked the end of a prolonged silence. Its serene beauty and sublime significance attracted many men of learning, who made it their task of life to unveil this mystery in stone.

Many works were accomplished on the subject, such as Sir Thomas Stamford Raffles' "the History of Java", John Crawford's "History of the Indian Archipelago" and the Borobudur Monograph by Dr. C. Leemans and J.F.G. Brumund as mentioned before.

Other scientists were occupied with the interpretation of the reliefs. Thus S. van Oldenburg recognized in the depictions on the balustrades, stories about the incarnations of Buddha after the text of the Jatakamala tales.

Thanks to C.M. Pleyte the reliefs of the upper series on the main wall of the first gallery, have come to be known as the life of Buddha in conformity with the text of the Lalitavistara.



Wilson's drawing of 1850

Dr. H. Kern's knowledge of the Old Javanese language proved to be invaluable in this work. Furthermore A. Foucher may be mentioned for his contribution to acquire a better insight into the nature of the whole, and the same applies to Dr. J.L.A. Brandes, the famous archaeologist, for his excellent detailed acquaintance with the Borobudur. But reconstruction would actual only be contemplated at the beginning of the next century. (in 1870)

However, it was during the brief British administration under Sir Thomas Stamford Raffles that Borobudur was awakened from its slumber. Raffles, a great admirer of the history and culture of the country, had laid the foundation for actual archaeological research. In 1815 he commissioned H.C. Cornelius an officer of the Royal Engineers, to institute investigations.

More than two hundred labourers were occupied for forty-five days felling trees, burning undergrowth and brushwood and removing the earth whereunder it was entirely buried and hidden. Only then could a start be made on reports and construction plans.

Activities were continued later on, and in 1835 the structure of Borobudur was approximately known. A German artist, A. Schaefer, made the first pictures, in photography called daguerrotypes.

Some five thousand pictures were deemed necessary for a complete documentation, an expensive process, which consequently was soon abandoned. Instead, F.C. Wilson was given the task to make drawings of all reliefs, which he carried out from 1849 to 1853, with the assistance of Schonberg Mulder.

Twenty years afterwards, in 1873, his work appeared in the first monograph on the Borobudur composed by C. Leemans, director of the Museum of Antiquities at Leyden, in co-operation with J.F.G. Brumund.

In the same year the renowned photographer L. van Kirebergen was assigned to take photographs of Borobudur. In order to perform his task as well as possible he conducted certain operations, which led to the disclosure of two hundred buried reliefs.

### Discovery of Hidden Foundation

A surprising find was the discovery of the hidden base by J.W. Hjermer in 1885 when in partly dismantling the broad base of the monument, reliefs were laid bare. In 1890-1891 this concealed section was entirely disclosed, photographed by Cephas for document purposes, and then recovered entailing the removal and replacing of about 13,000m<sup>3</sup> of stone.

This important aspect of Borobudur, which so far had been hidden from view, reflected the sphere of Desire. The hundred and sixty panels depict the Karma, the doctrine of cause and effect of good and evil as stated in the Karmawibhangga.



The doctrine of cause and effect of good and evil

### Unfinished Reliefs and Kawi Letters

These reliefs appeared to be unfinished, but the inscriptions included instructions for the sculptors and the period in which the temple was built could be ascertained.



unfinished relief

The broad base dating from a later era became a controversial subject to scientists. It was constructed either to prevent sagging and shoving or to form an integral part of the initial plan implying that the hidden sphere of Desire would assume a more profound significance.



The inscriptions are engraved in Kawi letters

## 20th Century Pavilion

This pavilion, which commemorates the tremendous accomplishment of restoration of the candi through lectures, models, films, and other aids.

### Preservation Works

Neglected and abandoned for almost one thousand years, Borobudur was in ruinous condition when it was discovered in 1814. Since then effort has been made to preserve it. Many parts of the walls and foundations, especially those of the four lower stages of the north, north and northeast part were slanting and gaging. Small-scale repairs have been made on several occasions, and various proposals were formulated for preservation measures of diverging nature, such as re-roofing the monument or evacuating the bas-reliefs to a museum and abandoning the monument itself.



The upper terraces before Van Erp's restoration

### First Restoration

In 1907-1911 a large-scale restoration was carried out by Th. van Erp. Although many parts of the structure are not put back in their original positions, nevertheless the able repair work undertaken safeguarded Borobudur for more than half a century. Since the second world war efforts have been made to continue its preservation. Since then, as a result of detailed examinations, in particular regular measurements of the walls of Borobudur carried out by the Archeological Service, various symptoms of instability were observed.



Approximate reproduction of Borobudur shortly after completion of first restoration by van Erp in 1911

### Second Restoration

In 1956, at the request of the Indonesian Government, a Belgian expert came to Indonesia on a UNESCO mission in order to make a general investigation of our monuments. He was especially interested in Borobudur. The main conclusion of his study was that preservation of Borobudur would require the elimination of the effect of water, this being the main destructive agent. This water erodes the slopes of the hill inside the monument, weakens the foundations of the structure and causes chemical processes that destroys the reliefs.

An application for further expert advice was made by the Indonesian government to UNESCO. Prof. C. Voule, a geologist par excellence and Mr. B. Groslier were sent to Indonesia in order to make a study on possible means of preservation of the edifice. They concluded, that the only solution to stop further decay and to prevent the loss of the monument, is to strengthen the foundations with reinforced concrete slabs and to drain all rain and surface water through underground pipes, preventing seepage of infiltrated water by inserting filter layers. Preparatory work before the actual restoration started in 1963, consisting amongst other things of the making of boreholes inside and outside the monument to examine the physical conditions of the subsoil. This drilling program proved much to our surprise that the hill on which Borobudur was constructed, and which was always believed to be a natural hill, was in reality artificial using loamy soil from the immediate surroundings, mixed with stone and stone chippings.

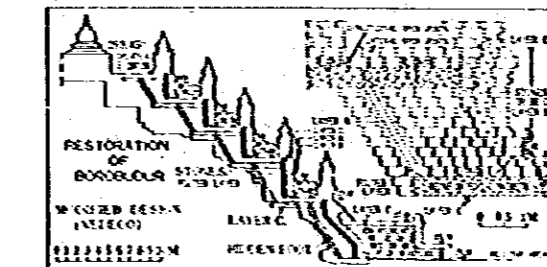
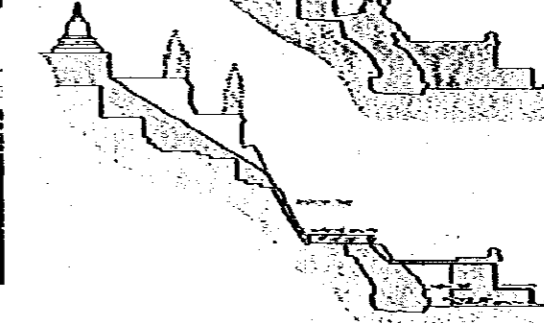
It soon became apparent that this gigantic restoration project would require much time and money, and that it would be also require cooperation of experts from a number of different fields.

The Indonesian Government appealed therefore again to UNESCO and it submitted in 1968 to the General conference a report stating the outlines of the proposal works. The General Conference gave full support to the Indonesian appeal and a resolution of the General Assembly of UNESCO authorized the Director General to raise funds for the safeguarding of Borobudur temple, which forms part of the cultural heritage of mankind.

### Before reconstruction



### After reconstruction



### Weakness of Candi Borobudur

#### Structural Collapse

Candi Borobudur is presently facing weathering of the andesite rock which is the only material from which it has been made.

In brief, the structural collapse of the candi can be attributed to its structural defects and to the unrelenting assault of rainwater on its weak points.

The main problem is the complicated way in which the hill on which the temple stands and its hemispheric core were created with infill of different types of soil from the neighborhood and the extremely unsophisticated techniques used in the structural piling of the rock blocks, thickness and width from place to place.

This situation with respect to the load and the base supporting it has given rise to subsidence and tilting of different parts of the structure, loosening of the masonry of walls and bed surfaces, widening of gaps between rock blocks, and even splitting of the blocks themselves.

To make matters worse, rainwater is assaulting both the exterior and interior of the structure not only through these gaps and splits but also by permeation through the porous rock.

The artificially created inner core of Borobudur Hill can be likened to a filter with a very complicated structure. Some of the water that passes through it saturates the soil, and the rest is squeezed out at the bottom and sides of the structure by the weight of the load above. As the water passes through the gaps between the rock blocks, the splits in them, and even through the porous rock itself, fine particles of soil from the interior of the core are carried out with it, forming layers on the surface of the rock, and tunnels are formed in the core as the soil particles are washed away which eventually collapse, giving rise to further loosening of the masonry and splitting of the blocks. Furthermore, the water-saturated soil weighs even more heavily on the lower parts of the structure while the ground resistance of the base fails, and this leads to further subsidence and collapse.

#### Weathering of Rocks

Another fatal weakness of the temple is the weathering of its rock.

Once volcanic rock like andesite cools off and is exposed to the atmospheric elements, it begins to undergo physical and chemical change, including decomposition of some of the minerals composing it to form other minerals and weakening of the bonds between crystal particles. This process, which is a very natural general phenomenon of rocks, is called weathering.

#### Such weathering

Such weathering is further stimulated by permeation of water, change in temperature and humidity, and the growth of plants, the most formidable of the three being water and the other two only being discussed only in connection with it.



Condition of Reliefs in 1910 (above) and Today (below)

## Field Museum

The field museum, a series of outdoor exhibitions located here and there throughout the park as an extension of the archaeological museum, is waiting to impart its messages from the past to visitors. It represents an attempt to get archeological messages across in a more natural and easy manner as a personal experience through the supplementary use of landscaping techniques than is possible within the limited confines of indoor museums.

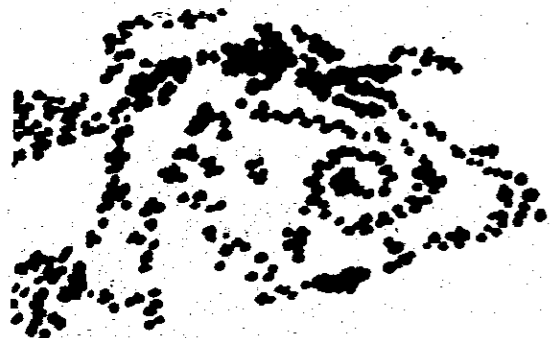
### Purpose and Character of the Archeological Field Museums

- (1) This is to serve as a place where the general public can become acquainted with the urban culture of ancient times on the basis of the results of the excavation surveys and related studies.
- (2) It will serve the function of excavation surveys and related research at Candi Borobudur, Candi Loro Jonggrang, and other monuments.
- (3) It will also serve as a place for development of techniques for preservation, protection, and restoration of monuments and accumulation and practical application of such technology.
- (4) It will also have the nature of a pioneering effort in Indonesia and Southeast Asia with respect to improvement and utilization of archeological monuments.

In spite of the many different programs have been attempted in different areas with respect to the improvement and utilization of monuments and areas in which they are distributed, neither methodology or techniques have yet been established.

The field museums in this project will help to orient other future efforts for the improvement and utilization of archeological monuments as one form of protecting, studying, improving, monuments for use by the general public.

### Chronological Mall



- BC 468 The birth of Buddha
- 414 Chinese pilgrim reaches Java & Sumatra
- 675 Buddhism spreads in Central Java
- 750-856 Mataram adherents to Mahayana Buddhism (Sjailendra dynasty)
- 760 Construction of Shivaist Temples of Dieng plateau (Sajjaja dynasty)
- 800 The influence of Hindu-Buddhist civilization began spreading throughout Java
- 778 Construction of Candi Kalasan (Sjailendra dynasty)
- 782 Construction of Candi Borobudur (Samaratungga dynasty)
- 840 Construction of Candi Plaosan and Candi Prambanan (Sjailendra and Sajjaja dynasties)
- 929-947 Spread of Tantrayana Buddhism in East Java
- 860-1000 Golden age of Candi Sriwidjaja
- 1292 Marco Polo arrives in East Aceh, is informed that Islam has been accepted
- 1300 Moslems from India begin arriving in Java
- 1350-1389 Golden age of Candi Madjapahit
- 1814 Candi Borobudur discovered
- 1907 First restoration of Candi Borobudur
- 1971-Present Second restoration of Candi Borobudur

## Origin of Borobudur Hill

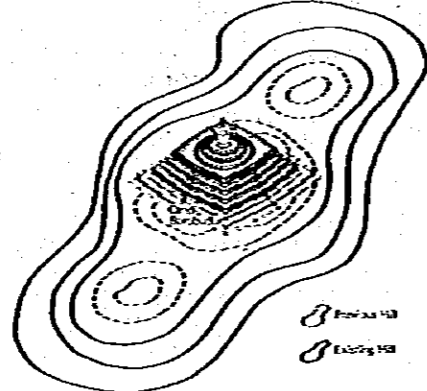
### Great Construction Work of Ancient Times the Site Earthwork

Candi Borobudur stands on a small hill in the middle of a sea of coconut trees in the Kedu Basin. Its structure can be described in simple terms as a hemisphere core covered with a surfacing of andesite rock blocks.

With the first boring tests in 1966 of the interior of the candi, which had been a secret for so long, and subsequent investigations by a UNESCO team and the Bandung Institute of Technology, it was at last discovered how one of the greatest civil engineering exploits of ancient times - the site earthwork of Candi Borobudur - was accomplished.

The discovery made was that the hill that the temple stands on originally consisted of three smaller natural hills in a row on the line extending from the northwest corner to the southeast corner and that they were formed into one long, narrow artificial hill by filling in the spaces in between with earth taken from the lowland rice paddies on the south side, nearby old river beds, and elsewhere and then doing expansion work.

The boring has revealed the characteristics and properties of the original soil and of the infill soil.



### Walk Into Man's Past

Visitors will get a great deal of pleasure out of walking along the mall that gives them an insight into the history of Candi Borobudur and of the coming of Buddhism to Indonesia while they also appreciate the surrounding landscape.

With completion of the archeological park, visitors will be able to walk back into history and discover all sorts of interesting facts about the temple and works relating to it as recorded for posterity, stopping at small plazas and alcoves along the way to contemplate the achievements of the past commemorated by them.

Walking along the mall, visitors find answers to such questions as: "When and how was the temple restored to its present condition?" and "What efforts were made before that in the way of its restoration?" To avoid monotony, the historical scenes are interspersed with subtle park landscaping with suddenly opening vistas on the countryside beyond.

As a visitor is strolling along the deeply shaded pathway wondering, perhaps, when and how the Candi Borobudur became known to the outside world, he suddenly comes upon a brilliant display of Indonesian dynasties and construction periods in the form of wall reliefs and posters. He can sit down on one of the many benches or stool provided there in the shade for more leisurely perusal of the interesting information presented in the display. Further along the way, he comes to an area commemorating the birth of Buddha, and then to a presentation regarding primitive man in Java in prehistorical times which marks the end of his journey back in time. To get back to the present, he can take any of a number of alternative routes afforded by a complex network of small paths.

The original soil, i.e. that of the natural hills, is yellow brownish or reddish tufa or sand-mixed tufa which resulted from the accumulation of fragments of andesite rock produced by weathering.

Three kinds of soil were used for the filling. One is dark brown clay with a high plasticity produced by further weathering of tufa. Since it closely resembles the soil of the rice paddies on the south side of the temple that is no doubt where it was taken from. The second kind is a mixture of this clay or sand-mixed clay with sharp pointed fragments of andesite, which strongly suggests that such fragments got mixed in with the infill earth at the building site as a result of the finishing work on the rock blocks and sculpturing work. The third kind is a mixture of dark black or brown tufa clayish texture with pebbles with a diameter of as much as 6cm, which suggests that it came from the pebbly mixed soil of the old river bed near the hill.

### Hidden Foundation

#### The Difficulty of the Construction Work as Attested to by the Dual Foundation

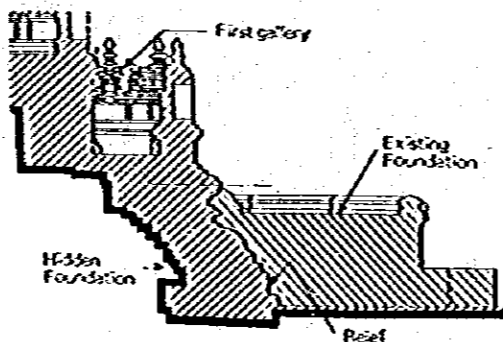
In 1885 J.W. Yzerman made the discovery that the foundation of Candi Borobudur has a dual structure.

As shown in the diagram of the section of the foundation, there is an inner, buried hidden foundation with nearly perpendicular sharp slope that rises while serving to hold back the soil to its rear and which has beautiful carvings on its surface of the standard style of the candi of the Hindu-Java period as is also to be seen on the base terraces of other monuments in the area, and of the perpendicular wall below is continuous relief work of the picture scroll type consisting of 160 panels measuring 67cm high and 200cm across and depicting the contents of the Karma-bhanga sutra.

Some of these panels are incomplete, and on the rim of some of them are carved ancient Javan letters that have not yet been effaced. Research on this writing has produced the main evidence for the estimated date of the temple's construction. In any case, it is clear that the work on this hidden foundation was discontinued before completion. On the outward side of it 12,000m<sup>3</sup> of andesite rock blocks were piled up to form the gallery of the present foundation, measuring 3.6m in height and 6.5m in width.

As can be seen in the diagram, the wall of the inner base terrace and the outer base terrace were connected in a really skillful fashion. In any case, however, it is apparent that there was a serious change in design while the work was in progress.

Needless to say, this dual foundation has given rise to considerable argument, the first point of contention being the reason for this change in design, a second being the extent to which this change in the design of the foundation affected the overall original design of the temple, and a third being whether or not the outer foundation should be removed so as to be able to view the 160 panels on the wall of the inner foundation.



## Thousands Archeological Messages on the Land

### Buddhist Cosmos

According to Buddhist cosmology the universe is divided into three major divisions Kamadhātu, Rupadhātu and Arupadhātu.

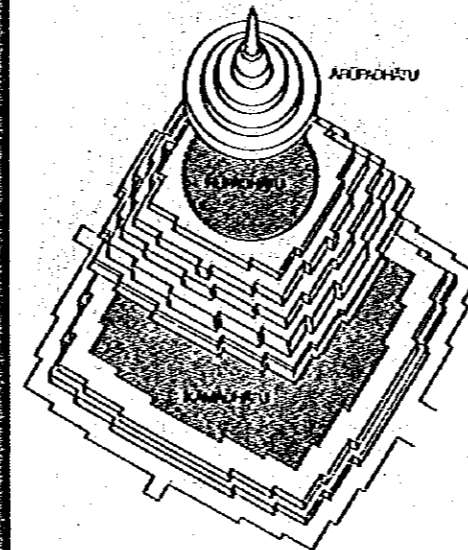
Kamadhātu is the "phenomenal world" for common people; the foot or base of the Borobudur represents this phenomenal world.

Rupadhātu is the transitional sphere in which human beings released from worldly matters; this sphere is represented by the four rectangular storeys.

Arupadhātu is the highest sphere, the abode of gods; the three circular terraces and the central dagob form the arupadhātu.

The base of the monument measures about 123m, but the total height is now only 31.5m. The pinnacle of the central stupa being incomplete.

At less than 160,000 cubic feet of andesite stones are used for the edifice.



### Kamadhātu

The original Kamadhātu is unlike the present one. The additional heavy wall of stone 11,600m<sup>3</sup>, covering the original base is intended to support the edifice and prevent it from sliding off before its completion. In 1885 J.W. Yzerman happened to discover the original of under the stone wall mentioned above. On the original base are 160 reliefs depicting scenes of Karma-bhanga, the law of cause and effect. These reliefs are photographed by Cephas in 1891 after having been away the additional wall. Nowadays a part of the original base on the southeastern side of the Borobudur still visible; it was disclosed during the Japanese occupation. Brief inscriptions were found above one fourth of these reliefs, indicating instructions for the sculptors about the kind of scene they had to carve there. There are indications among these reliefs that they were not completed, probably because the Borobudur was sliding off, so that they were forced to cover the original base before the reliefs were finished. There are two different theories on the reason of covering the base: one is for technical reasons and the other is for religious ones.

### Rupadhātu

Rupadhātu consists of four square galleries, of which the outer ones are bordered by balustrades. There on is a chain of niches, decorated with miniature dagobs at the top, which contain Buddha images. In the middle of each gallery, and on all four sides of the monument, is a staircase leading to a higher part of the edifice. Opposite to the balustrades, the walls are decorated with reliefs depicting stories from Sanskrit manuscripts: Mahāvāyūha, Lalitavistara, Jātaka and Awadana. The Rupadhātu is adorned with a great variety of ornaments: Kalamakara, foliage, spirals, flowers.

### Arupadhātu

Before you enter the Arupadhātu, you have to pass through a transitional region: a plateau of which the outer border is square, while the inner wall is circular, without beginning but also without end. Then follows the domain Arupadhātu. The atmosphere is superlative, tranquil and pure. You have entered into a world for meditation.

Noteworthy is the striking difference between the other spheres and the Arupadhātu. The three circular terraces have neither reliefs nor ornaments. They are adorned with 72 latticed dagobs, arranged in three concentric circles and surrounding the main stupa. The three terraces contain successively 32, 24 and 16 dagobs, containing Buddha images.

The holes in the dagobs of the third or uppermost series are squares, while the harmikas (the part between the body and the pinnacle) are octagonal. The holes in the dagobs of the first and second rows are lozenges, and the harmikas are square. The purpose of these differences is unknown.

### Cosmic Garden

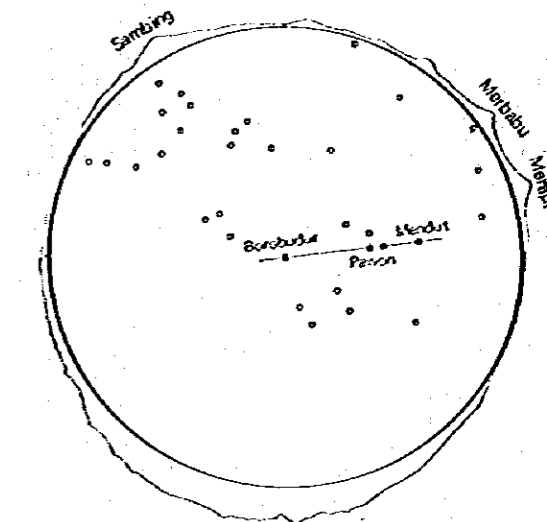
In the most remote past the island of Java was floating in the ocean, and had to be nailed to the center of the earth before it could be inhabited. The huge nail became a small hill, called Tidar, at the southern outskirts of the present city of Magelang. And only some 15km south of Tidar hill is Candi Borobudur situated.

The region around the "Nail of Java", better known as the "Kedu Basin", forms the geographical center of the island. Its extreme fertility, and very industrious population, explain why it is often called the Garden of Java. The undulating plain is bordered on practically all sides by rugged mountain ranges. And as if to beautify the landscape, two sets of twin volcanoes soar into the sky: the Merapi (2,911m) and the Merbabu (3,142m) at the northeast, and the Sumbing (3,371m) and the Sindoro (3,135m) at the north-west. The Merapi alone is now active. A wreath of smoke is the daily embellishment of its conical top, and the small eruptions that occur every two or three years, are a reminder that it is still active.

### Super Corridor Between Borobudur, Pawon and Mendut

It has been shown that Pawon resembles Mendut in many ways. Van Erp pointed out further that except for the size, the ground-plan and profile of Pawon have a close affinity with Mendut. There is yet another fact that strike us as noteworthy: Mendut, Pawon and Borobudur are located a long straight line. If this is something that did not happen accidentally, then what does it actually signify? Architecturally and ornamentally the three are akin. All belong to the same period and were built by the one Sailendra dynasty. There is good reason to regard them as constituting a trinity. A local legend tells us that the three temples were originally connected by a covered passage used for religious processions. Even nowadays the Neo Buddhist celebrates on the temple ground of Borobudur every year on full moon day in April or May the birthday of Lord Buddha and his ascension into Nirvana (Wakak). The religious processions and rituals are performed starting at Mendut, going through Pawon to Borobudur.

Mahayana Buddhism propagates that anyone who wishes to attain Buddha-hood has to go through the Ten stages of Bodhisattvas (Dacabodhisattvabhumi). According to de Casparis, the Borobudur Temple is a plastic expression of the philosophy of this Dacabodhisattvabhumi, symbolically represented by its ten terraces. In Mahayana Buddhism these stages are collectively called Lokottara, which means the world beyond that of man from Sanskrit words loka = world,

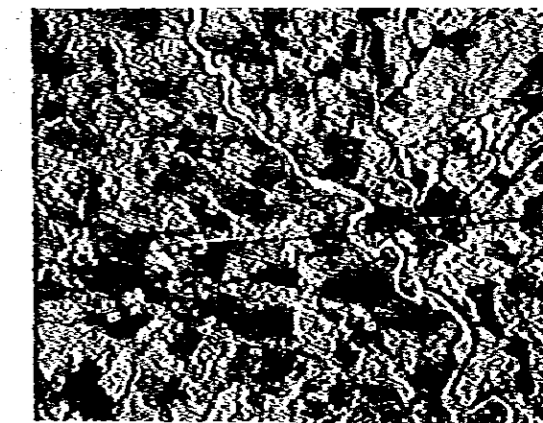


The western and the southern sides of the basin are closed by a long chain of hills, that form a rugged skyline of towering masses of indefinite shape. Hence the denomination "Menoreh range" (menoreh stands for menara and means "tower"). Especially interesting is a particular hill south of Candi Borobudur. Viewed from the monument it looks very much like the profile of a man lying on the ridge of the hill. The nose, lips and chin are clearly delineated. This peculiarity has not escaped notice. The story goes that the ridge depicts Guṇāśharma, architect of Candi Borobudur according to tradition, who is believed to keep watch over his creation through the ages.

The southeastern corner of the basin is the only one not blocked by a mountain range; at this point, the Menoreh chain bends southwards before reaching the foot of the Merapi. And it is through this passage that the waters of the Kedu region leave the basin and flow to the Indian Ocean. The Kedu basin is intersected by the two main rivers of the region: the Progo and the Elo. Both run nearly parallel from north to south, forcing their way through narrow but deep trenches. Arrested by the slopes of the southern ridge of the basin the two rivers flow together, after which the Progo carries the waters to the ocean alongside the southward-bending Menoreh range.

and uttara = beyond, above). Being located on a high ground or hill, the Borobudur represents this Lokottara. But no man can enter this exalted world without first passing the two preparatory stages, Sambharāmagā; and Prayogamāga, which are still part of the earthly world or Laukika. In contrast with Borobudur, both Mendut and Pawon occupy flat land, signifying that the two represent the preparatory stages which man has to pass through on his long journey to reach the summit of the world of Buddha.

It may be concluded that apart from being each a monument consecrated to the dynasty and a place of ancestor-worship, the three temples are also structural reflections of life in accordance with the doctrine of "dacabodhisattvabhumi".



# Borobudur Archeological Conservation Center

It will not only undertake repairs and supervision of the Borobudur temple and other monuments in the area and carry out excavation work but also provide technical archeological training for both experts and students from many Asian countries and hold academic congresses to enhance Indonesia's status in the field of international cultural exchange. Eventually, close ties are to be established with ancient capital cities in other Asian countries.

## BACC Works

Borobudur Archeological Conservation Center (BACC) covers, under Ministry of Education and Culture, three areas of functions of:

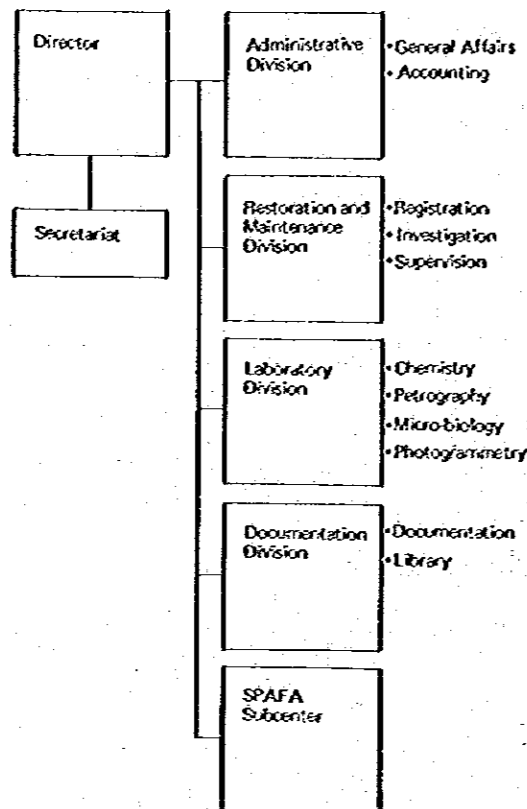
Archeological Site Office at Borobudur (BAO), Borobudur Restoration Commemorial Center, and SEAMEO (Southeast Asian Ministers of Education Organization) Program for Archeology and Fine Arts (SPAFA) Subcenter that is one of four subcenters of the Region.

The first Archeological Office is in charge of administration, registration, restoration and maintenance of monuments:

The second BACC is, joined with Borobudur Archeological Museum (BAM) and in cooperation with Park Operation Corporation (POC), dealing with archeological exhibitions, promotion of educational/cultural programs for visitors, schools and community, and research:

The third is for SPAFA training and exchange programs and for coordination with three other Subcenters.

## Organization of BACC



## Administrative Division

Besides being responsible for general management of the center and overall control of the activities of the other divisions, this division will formulate annual research programs and apply to the Minister of Education for budgeting thereof as well as arrange for exchanges of research results and other personnel and technical exchanges.

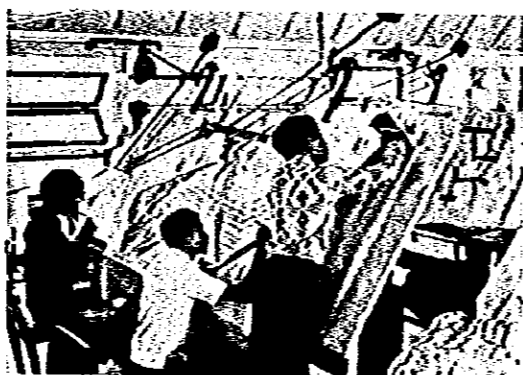
## Restoration Division

This division will make regular checks and repairs for maintenance of Candi Borobudur and other nearby monuments as well as cooperating with PAO in the restoration work on collapsed monuments and keeping custody of archeological artifacts discovered in the vicinity.



## Laboratory Division

This is a laboratory doing testing and research in the fields of petrography, chemistry, microbiology, etc. for the purpose of developing techniques to counter weathering of the stone materials from which the monuments are made for the sake of their preservation.



## Documentation Division

This division will prepare drawings for excavation surveys and restoration work and assist research activities through collection and filing of relevant information and data as well as publishing reports on the results of research.



# Mecca of Archeological Researches and Studies

## SPAFA Subcenter

Another important part of the Borobudur Archeological Conservation Center will be the SPAFA Subcenter, where research work will be done on techniques for restoration and preservation of ancient monuments in the context of the SEAMEO (Southeast Asian Ministers of Education Organization) Project in Archeology and Fine Arts (SPAFA) for July 1978-June 1981, a part of the development plan for which, announced in September 1977, is given below.

In January 1975, the Development Plan for the Applied Research Center for Archeology and Fine Arts (ARCAFA) of the Southeast Asian Ministers of Education Organization (SEAMEO), proposed to be located in Phnom Penh, was approved by the Southeast Asian Ministers of Education Council (SEAMEC) at its Conference in Baguio. Owing to political circumstances, this Plan could not be implemented as envisaged. The situation was reviewed by the Council at its Conference in Singapore in January 1976, and the following three resolutions were adopted:

- That the Council agree that SEAMEO's activities in archeology and fine arts be continued, for the time being, outside the framework of ARCAFA;
- That the Council direct the Secretariat (SEAMES) to initiate planning and developmental work with a view to preparing a development plan for the SEAMEO Project in Archeology and Fine Arts for the review of an experts committee consisting of representatives of the member countries before final submission to the Council for approval, by referendum if necessary; and
- That the Council direct the SEAMES Director to tap all possible sources of support for the planning and developmental work as well as for the implementation of the Project.

Immediately following this Council Conference, the Secretariat undertook developmental activities for the SEAMEO Project in Archeology and Fine Arts (SPAFA). These activities included the reprint and analysis of ARCAFA documents which contain information on the resources, needs and requirements in archeology of the SEAMEO member countries. Subsequently, a questionnaire was prepared with a view to updating this information and gathering new information on the human, financial and physical resources as well as plans, needs and requirements of the member countries in archeology and fine arts. A Task Force, known as the "SPAFA Task Force", was also constituted to visit the member countries and their major institutions in archeology and fine arts.

The SPAFA Task Force visited a great number of institutions in archeology and fine arts in five member countries of SEAMEO, namely, Indonesia, Malaysia, Philippines, Singapore and Thailand, during May 7 - June 4, 1976. On the basis of the information gathered through the Questionnaire and the visits made by the Task Force, a draft Development Plan for the initial three-year phase of operation of SPAFA was formulated.

The Development Plan covered a time period of three years. The rationale for this is the following:

- 1) Training courses to be conducted by the SPAFA Sub-Centers are of a highly specialized nature. A small number of trained professionals in each field will be sufficient to meet the specific needs of the region in that particular field. New needs may also emerge for which new courses will have to be designed. Furthermore, the advent of knowledge and techniques in these fields may necessitate re-adjustment of certain courses. It is thus not advisable to plan for longer than three years.
- 2) In view of the fact that there are very few concrete proposals for activities in fine arts, the programs of SPAFA should be reviewed for incorporation of activities in fine arts as soon as possible.

- 3) The three-year period should serve as a trial period for SPAFA. The structure and mode of operation of SPAFA may be regarded as a novelty for SEAMEO. The experience gained from the operation in the first three years should serve as the basis for the formulation of a development plan for the next phase of operation.

The draft Development Plan was reviewed at the Meeting of the Experts Committee convened by SEAMES on June 28 - July 2, 1976. The SPAFA Experts Committee adopted the Development Plan and made a recommendation to the Council to approve the SPAFA Development Plan, including the proposed objectives, organizational structure, programs and activities, budget and funding scheme. The Experts Committee also recommended to the Council the commencement of the initial three-year phase of operation of SPAFA activities on July 1, 1977, provided that funds would have been available according to the Funding Scheme of the SPAFA Development Plan.

The Secretariat then presented the Proposed SPAFA Development Plan to members of the Council for approval by referendum in September 1976. Approval was received from Ministers of Education of Indonesia, the Philippines and Thailand. Singapore informed the Secretariat that it would not be able to participate in the Project. Malaysia indicated to the Secretariat that it was not ready, for the time being, to participate in the Project as outlined in the Proposed SPAFA Development Plan.

The Secretariat reported on the development of SPAFA to the Council at the Twelfth SEAMEC Conference in Jakarta in March 1977. The Council adopted the following resolution:

- That the Council authorize the Secretariat to convene a meeting of representatives from the member countries with the view to revising the Proposed Development Plan for SPAFA and deciding a suitable date for launching the Project.

The Meeting to Review the SPAFA Development Plan was convened in Bangkok on July 18-20, 1977. It was attended by one representative each from Indonesia, Malaysia, the Philippines and Thailand. The Malaysian representative informed the Meeting of Malaysia's stand with regard to participation in SPAFA. As no provision had been made for Malaysia's participation prior to the commencement of the Fourth Malaysia Plan in 1981, Malaysia was not in the position to participate in SPAFA for the time being. The representative from Indonesia, the Philippines and Thailand expressed their readiness to participate in the Project as soon as possible and were of the opinion that the Project should be launched soon. The representatives of Indonesia, the Philippines and Thailand agreed to recommend that the launching date for SPAFA be reset for July 1978. Necessary amendments and revisions in the Proposed SPAFA Development Plan were made at the Meeting resulting in the present version of the revised Proposed Development Plan for SPAFA.

There is a common feeling among the SEAMEO member countries that SEAMEO offers a unique opportunity for them to share their experiences and to promote better understanding among the professionals, as well as the general public, of the problems faced by the region as a whole in the reservation of their respective cultural heritage and identities. Working for a better knowledge of the past, for the preservation of the traditional values and for the promotion of creative activities, SPAFA is being established to help strengthen co-operation among SEAMEO member countries and at the same time to promote progress of archeology and fine arts in the region.

## The Objectives of SPAFA

To promote awareness of the cultural heritage of the Southeast Asian countries and to help enrich cultural activities in the region.

To strengthen professional competence in the fields of archeology and fine arts through sharing of resources and experiences and through regional activities, and

To promote better understanding among the countries of Southeast Asia through joint programs in archeology and fine arts.

## Organizational Structure

The SEAMEO Project in Archeology and Fine Arts (SPAFA) is a regional project of SEAMEO implementing activities in archeology and fine arts through SPAFA Sub-Centers established in the participating member countries. A SPAFA Sub-Center may be an existing national institution/agency designated by the participating member country concerned for participation in the Project. The Director of a SPAFA Sub-Center will be designated by the Minister of Education of the host country of the SPAFA Sub-Center concerned.

Each participating member country will set up a SPAFA Steering Committee to supervise regional programs and activities assigned to the SPAFA Sub Center(s) it hosts.

The SPAFA Co-ordinating Unit, to be based at SEAMES will be responsible for co-ordinating the implementation of regional programs and activities assigned to the respective SPAFA Sub-Centers according to the SPAFA Development Plan. The SPAFA Co-ordinating Unit will also operate a library and information exchange system as well as publish a periodic bulletin. The SPAFA Co-ordinating Unit is headed by a Co-ordinator who shall be assisted by a professional staff of two persons, namely, an Assistant Co-ordinator and a Documentalist, and also by a number of support staff.

The SPAFA Co-ordinating Unit operates under the supervision of the SPAFA Governing Board which is composed of one representative from each of the three participating member countries. The Co-ordinator of the SPAFA Co-ordinating Unit and the SEAMES Director are ex-officio members of the SPAFA Governing Board. The Governing Board nominates the Co-ordinator for appointment by the President of the Council. The SPAFA Governing Board determined the policies and approves programs and budgets for the Project within the framework of the SPAFA Development Plan, and controls the financial operations of the Project according to SEAMEO procedures.

## The SPAFA Sub-Centers

In the initial stage of implementation of the Project, there will be the following SPAFA Sub-Centers:

- Indonesia will designate the Project for the Restoration of Monuments as host institution for the SPAFA Sub-Center for Preservation and Restoration of Ancient Monuments (Indonesia).

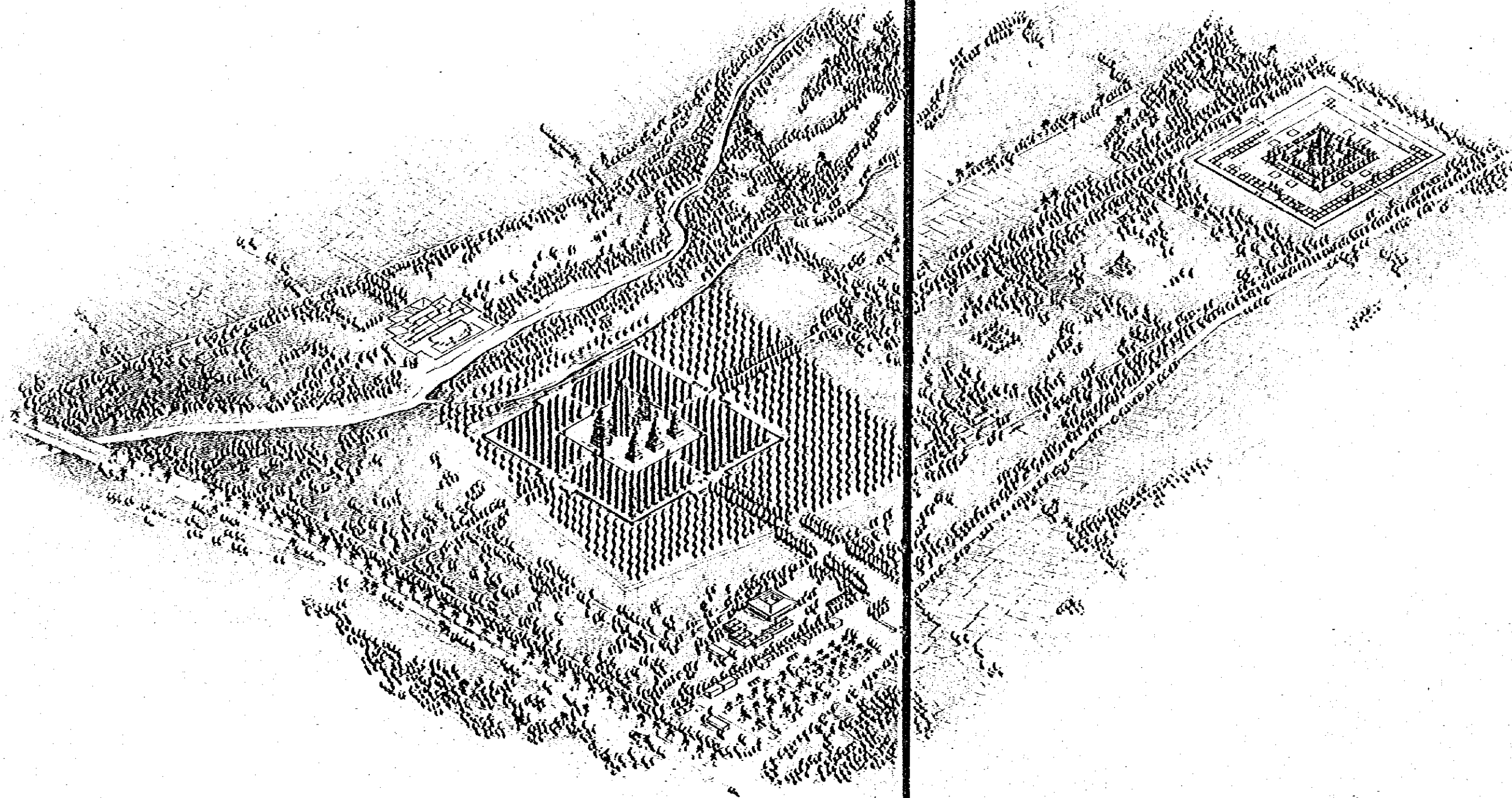
## Outline of SPAFA Program Activities

The activities of SPAFA are planned for implementation starting in July 1978. Although a tentative schedule of activities is included, a great deal of flexibility has been allowed in the present Development Plan, and the SPAFA Co-ordinating Unit, once officially set up, will have to formulate a more definitive work-plan.

For "Archeology", the urgent needs as well as the physical and human resources available within each member country have been considered, especially those having potentiality for serving regional activities. The proposed programs should not duplicate existing or other planned activities and they should be of regional importance.

The SPAFA Sub-Center for the Preservation and Restoration of Monuments is proposed for Indonesia. Its program includes the conservation of stone and it relates to the restoration of Borobudur where new techniques, modern scientific equipment and competent experts are available. The training programs include not only courses for architects and restoration technicians but also those for chemists and other scientists. A regional workshop for specialists in monument restoration at Borobudur is also envisaged.

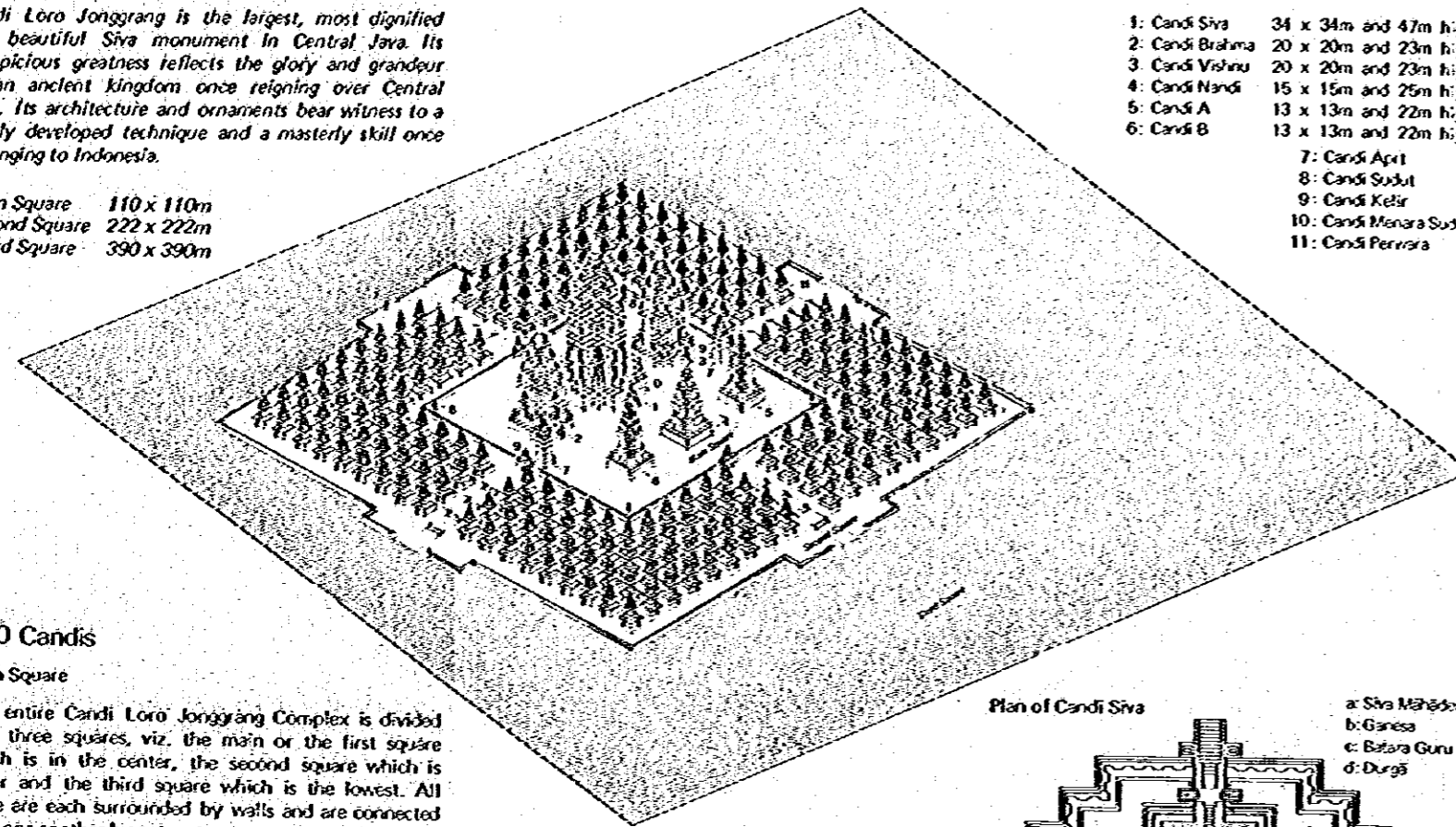
# *Invitation to Ancient City*



# Profile of Candi Loro Jonggrang

Candi Loro Jonggrang is the largest, most dignified and beautiful Siva monument in Central Java. Its conspicuous greatness reflects the glory and grandeur of an ancient kingdom once reigning over Central Java. Its architecture and ornaments bear witness to a highly developed technique and a masterly skill once belonging to Indonesia.

Main Square 110 x 110m  
Second Square 222 x 222m  
Third Square 390 x 390m



## 240 Candis

### Main Square

The entire Candi Loro Jonggrang Complex is divided into three squares, viz. the main or the first square which is in the center, the second square which is lower and the third square which is the lowest. All three are each surrounded by walls and are connected with one another by entrances.

The main square is surrounded by a stone-wall (110 x 110m) and forms the first square of the Candi Loro Jonggrang Complex.

There are six big temples in the main square standing in two rows from North to South. At the west side we find the three bigger temples, the Siva temple as the main temple flanked by the Vishnu temple (north of it) and the Brahma temple (south). All are facing east. On the east side there are three smaller temples, which used to be called the Candi Vahana (the carriage) and which are facing west. This name is in fact not correct, because from these three temples only the middle one contains a carriage of Siva, i.e. Nandi. The other two temples (for convenience sake the northern one called temple A and the southern one temple B.) have neither the carriage of Vishnu nor that of Brahma. They might have been reserved in former times for certain personifications of Siva.

At the north end and south end of the square, between the two rows of temples mentioned above, are the two Candi Apit. In each corner of the square and exactly in front of each entrance, there are small temples; the temples in the corners are called Candi Sudut and the temple in front of the entrances are the Candi Kelir.

### Second Square

Parallel with the surrounding walls of the main square (the first square) stand the surrounding walls of square No. 2 on a lower level. This square is 222 x 222m large and has its entrance in the center of each wall.

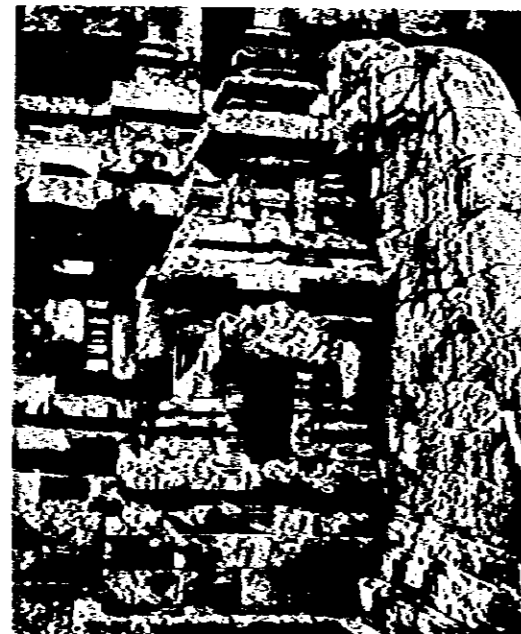
In the square we find 224 Candi Perwara (minor temples) (6 x 6m, 14m high) which stand in four rows of 68, 60 - 52 and 44 constructions. All these temples are practically completely in ruins. Two of them, however, have been restored by the Archeological Service.

### Third Square

The third square is larger (390 x 390m) but its walls do not run parallel with the two former ones, but is more slanting to south-west, while the other two are both facing the points of the compass.

### Candi Mehara Sudut is Center of the Main Square

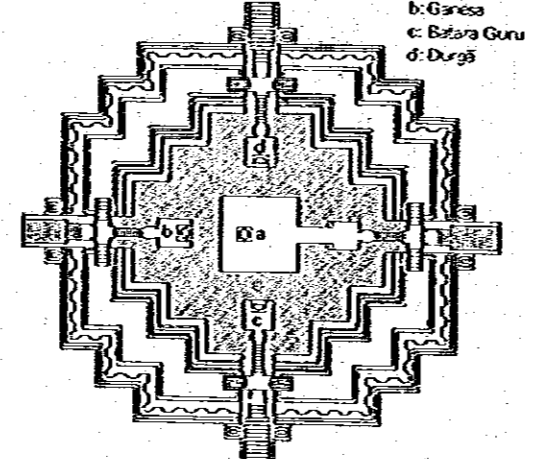
Noteworthy is the fact that it is not the main temple - which contains the statue of Siva Mahadeva - that forms the most sacred place of the Candi Loro Jonggrang Complex, but the Candi Mehara Sudut, which stands south of the eastern flight of stairs. This temple has an open front, which is different from the other seven Candi Mehara Sudut. (There are eight Candi Mehara Sudut, the four flights of stairs of the main temple are each flanked by a pair of them). Inside the temple we find a base with a hole, under which there is a tube which contains three rock stones shaped as a parallelogram. This tube is not visible from the outside. There are lines drawn on these stones indicating the sacred spot in the center of the square. In other words, the main statue does not stand exactly on the sacred spot, but a little to the north-west.



Candi Mehara Sudut

- 1: Candi Siva 34 x 34m and 47m high
- 2: Candi Brahma 20 x 20m and 23m high
- 3: Candi Vishnu 20 x 20m and 23m high
- 4: Candi Nandi 15 x 15m and 25m high
- 5: Candi A 13 x 13m and 22m high
- 6: Candi B 13 x 13m and 22m high
- 7: Candi Apit
- 8: Candi Sudut
- 9: Candi Kelir
- 10: Candi Mehara Sudut
- 11: Candi Perwara

### Plan of Candi Siva



- a: Siva Mahadeva
- b: Ganesa
- c: Bhatara Guru
- d: Durgā

### Candi Loro Jonggrang is a Replica of Mount Mahameru

Candi Loro Jonggrang the burial place of the kingdom, though essentially a temple of Siva, is also considered as a temple of the kingdom. The Candi Perwara represent the sub-districts of the kingdom.

As the dwelling place of the gods, Candi Loro Jonggrang is a replica of Mt. Mahameru. In the center rises the main temple, symbolising the top of the mountain, home of Siva, the two tops right and left of it are for Brahma and Vishnu, while the other tops symbolize the places of the lower deities.

There are 3 squares or yards in the Candi Loro Jonggrang complex; the main or inner yard, the central and the outer yard. The inner and central yard are sacred, the place of gods and kings who are worshipped as gods, while the outer yard is of a profane character, a place where people are preparing religious ceremonies. In the Candi Loro Jonggrang complex this outer yard is for more spacious than the other two. In this place there are no traces of ruins. There used to be buildings there, but no traces of them can be found now, since they were constructed of material which was not durable, such as wood, bamboo etc. These houses were viharas for priests, who supervised and took care of these sanctuaries, and dormitories for pilgrims who were visiting the place.

Such is the picture we get of this vast group of monuments, a group which is ancient times used to be the center of interest of the whole community.

## Statues

Taking into account the statues of the deities in the Candi Loro Jonggrang complex, we see that the temple is dedicated to Trimurti, the higher gods (Isvara) in the pantheon of Hinduism i.e. Brahmā, the god of creation, Vishnu, the god of guidance and Siva, the god of eternity. Siva is the highest god of these three, the Mahādeva or Mahēsvara whose statue stands in the center of the central chamber of Siva temple and forms the main statue.

### Siva Mahādeva

In the central chamber of Candi Siva, which is 7.14m<sup>2</sup> large, is situated the main statue of Candi Loro Jonggrang, the Siva Mahādeva, standing on a pedestal which has a spout at its north side. Siva is dressed in grand tunic and has four arms. His customary attributes are, a rosary (aksamala) and a fly-whisk (camara) in his back hands; a trisula (trident) against the back piece; a skull and a lunar crescent in his head-dress and a snake as cord. The statue is 3m high and the pedestal which had the form of a yoni, is 1m high.

### Ganesa

Behind the central chamber, in the cella facing west is situated the statue of Ganesa, and elephant-headed god who is the son of Siva. This statue has four arms, a rosary and a hatchet are in his back hands; the skull-bowl and a piece of his right tusk are in his forehands; his trunk is sucking something from the bowl. In his head-dress, as is customary with Siva statues, a skull and a lunar crescent.

### Bhatara Guru

In the southern cella the statue of Bhatara Guru stands on a padmasana. As usual the god is standing and has two arms. Bhatara Guru is pictured as a pot-bellied and bearded priest. He never carries arms, except a trisula standing against the back piece while at his left shoulder there is a camara. His left hand holds a water-jar (Kamandatu) and his right hand is in front of his chest.

### Durgā

In the northern cella stands the statue of Durgā. It is this statue which is known in folklore as the "Loro Jonggrang", the cursed maiden. This goddess, known by the name of Durgā Mahisuramardini, who is in the act of killing a bull-demon, is regarded as the wife (sakti) of Siva. She stands on the back of a bull holding its tail with her right hand, while her left hand clutches the hair of the demon, who is depicted as a short, fat and mustached man dressed only in a loincloth. This goddess has eight arms holding in each hand various weapons, such as an arrow, a sword, a catra, a bow, a shield and a winged conch (sangha).



Brahmā in the Candi Brahmā



Vishnu in the Candi Vishnu

### In the Candi Brahmā

There is not much information about the other temples. In the Candi Brahmā, which lies south of the main temple, we find on its balustrades the continuation of the Rāmāyana. Other ornaments show a great resemblance with that of the main temple. The panels depict Brahman priests or holy men sitting with two men standing between them. What this scene is trying to show is not yet clear. In the chamber of the headed and four-armed god, who is the god of creation. The statue is 2.4m high and stands on a pedestal which has the form of a yoni.

### In the Candi Vishnu

In the Candi Vishnu, which lies north of the main temple, the main statue like the other main statues of this row has four hands and is in a standing position. The right fore hand rests on a club beside him. The attributes in his back hands are a catra (discus), and a winged conch (sangha). The god Vishnu is depicted in various personifications, i.e. as Nārāyana, Parasurāma, Vyāsa, Bālarāma, etc. The inner balustrades which encircle the Candi Vishnu, are ornamented with reliefs of scenes from the Kṛṣṇāyana, the story of Kṛṣṇa and his brother Bālarāma in their youth.

Five other big temples in the main square, the two Candi Apit and the three other temples are standing in a row at the east side. In principle, there is no great difference in the design of ornaments between these temples and the three big temples mentioned before, except, of course, small variations here and there. In the chamber of both Candis Apit is empty.

### In the Candi Nandi

The main statue of the Candi Nandi is the vehicle of Siva, the bull Nandi which is approximately 2m long. The depiction of this animal is very fine, revealing a high technique in sculpture. In this temple there are two other statues, the statue of Surya and Chandra, each driving a carriage drawn by seven and ten horses respectively. The god Surya (the sun) is holding a padma-flower in his two hands. The god Chandra (the moon) has a sama-plant in his right hand and a dwarf (banner) in his left hand. One of Siva's characteristics found on the statue of god Chandra is the presence of a third eye on his forehead.

### In the Candi A and B

A partly destroyed Siva statue having four arms is kept in the Candi A (north of Candi Nandi). His well-sculptured head is kept at the Museum of Jakarta. A statue of the Garuda bird, which was placed there for a while, is now placed in front of the Archeological Service Office in Prambanan. This statue does not come from the Candi Loro Jonggrang complex, but is found in Telaga-Lor, approx. 700m to the north of Prambanan. It was carried to the Candi Loro Jonggrang complex, under the assumption, that it was god Vishnu's vehicle. Candi B (south of Candi Nandi) is empty.



Ganesa in the Candi Siva

## Ornaments Reliefs

### Prambanan Motifs

The beautifully sculptured ornaments on the main temple reveal a highly developed technique. The walls of the base are ornamented with well-known "Prambanan motifs" consisting of statues of lions in niches with kalamakaras ornaments on both sides of the "tree of heaven" with a pair of kinnaras, heavenly beings with half-human and half-bird bodies.



### Reliefs of the Gods of Lokapala



There are 24 great panels on the upper part of the base containing reliefs of the gods of the four winds (Lokapala) and their followers. The Lokapala or Dikpataka are dressed in grand tunic, sitting cross-legged on a pedestal. There are various attributes to distinguish one from the other; the pratika behind the head is to show that they are gods or heavenly beings. The Lokapala are as follow: Indra (east), Yama (south), Varuna (west) and Kuvera (north). Kalamakaras are decorating the entrances and niches.

### Reliefs of the Ramayana Story



On the outside walls of the balustrade there are 62 panels containing pictures of heavenly beings (bidadari), musicians and dancers. The dancing resembles the Siva dance, viz. the Tandava dance, as pictured in the book Natyasastra. On the inside walls of the balustrade surrounding the temples there are reliefs of the Ramayana story from the beginning to the crossing of the sea to Langka; the continuation of the story is found on the balustrades of Candi Brahma. The Ramayana version pictured in Candi Loro Jonggrang differs from that of the Old-Javanese version (Kakawin) found on the reliefs of Candi Panataran.

# Prambanan Archeological Museum

The exhibits at this facility, employing films, posters, models, and other communicative techniques, will describe religious, historical, cultural, and technical aspects of the numerous archeological ruins to be found in the Prambanan area, most notably Candi Loro Jonggrang and Candi Sewu, in order to enhance peoples appreciation and understanding of Central Javan culture through study of these monuments that still have quite a few unsolved mysteries.

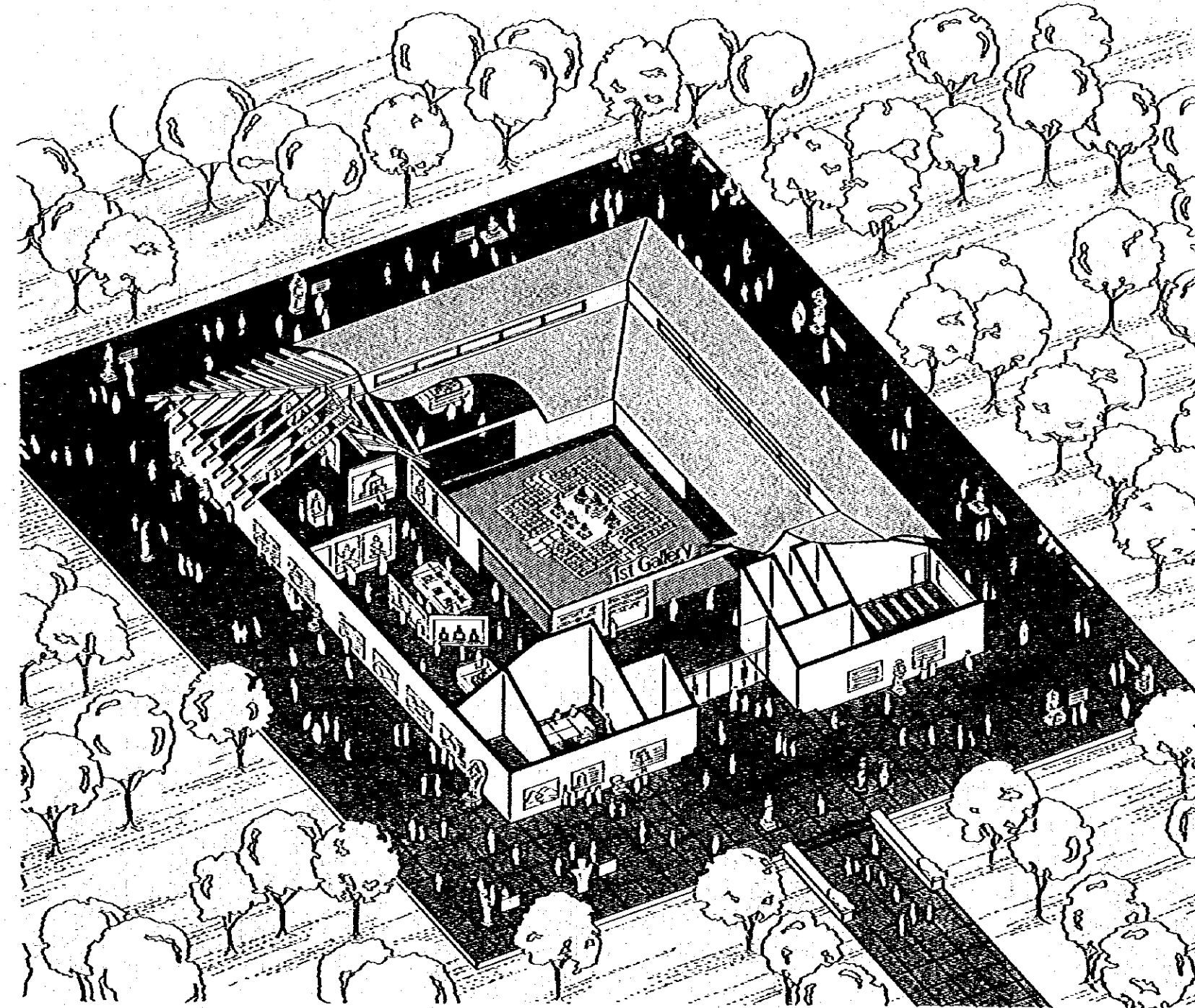
## Exhibition Plan

This museum, which will take you into a world of long, long ago enshrouded in mysteries, is modelled after the temple building layout of Candi Loro Jonggrang, with three galleries.

The first gallery will spotlight the Loro Jonggrang complex, with explanations of the various candi in the complex and the statues that they contain as well as of the history of their rediscovery, protection, and restoration and research on them to date.

The second gallery will deal with the historical vicissitudes of the dynasties of the Central Java period including the history of candi construction during this period.

The third gallery will feature drawings and models showing the architectural characteristics of the candi of the Central Java period.



The initial floor space is to be 900m<sup>2</sup>, but it will be necessary to increase it later on in view of the vast amount of material that will have to be displayed.

# 1st Gallery: Candi Loro Jonggrang Complex

This gallery will be a scale model of the Loro Jonggrang complex (scale of approximately 1:20) which will give a better idea of the plan of the third compound and the overall building layout than can be gotten at the complex itself.

## Date of Erection

The exact year of the Candi Loro Jonggrang Complex is not yet known. Because of insufficient data to estimate its age, arguments arose among archeologists about when, and by whom the temple was built.

Up to now it is generally assumed, that the Candi Loro Jonggrang Complex was built in the 10th century and as some connection with King Daksa or Balitung. G. de Casparis suggested a different opinion about this by placing the date of erection of the Candi Loro Jonggrang Complex in the 9th century. This opinion is based on various factors.

## Origin of The Name "Loro Jonggrang"

There is attached to the name Loro Jonggrang a piece of well-known folklore. Loro Jonggrang is the name of the daughter of king Ratu Boko, whose name is still used with reference to the archeological remains in the erodaded high plateau which consists of ruins, supposed to be a kraton (palace) in ancient times. The place has been referred to as the palace of king Ratu Boko, whose daughter was said to be slender and beautiful.

Bandung Bondowoso, a giant who had supernatural powers asked for her hand. Afraid of refusing him, she asked him to give her by way of a wedding present a monument (candi) with a thousand statues to be built in one night, a request which she considered could not be fulfilled. But she was mistaken. When Bandung Bondowoso was already approaching the final stage of his task in pleasing the one he adored, the princess by means of a trick was able to undo his work. Pounding in a rice - mortar, she started the cocks to crow, thinking that dawn has come. Only one more statue had to be finished. Out of anger Bandung Bondowoso cursed the princess to be changed into stone to complete the number of statues.

His statue is the Dewi Durga, which now stands in the northern cella of the main temple. Up till now, this statue is still the object of pilgrimage for people who believe in her. The name of the cursed princess is used for this temple - complex.

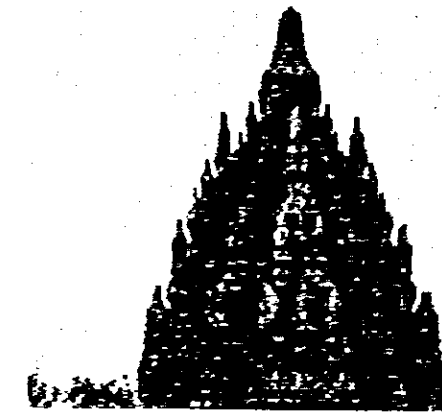


Statue of Dewi Durga

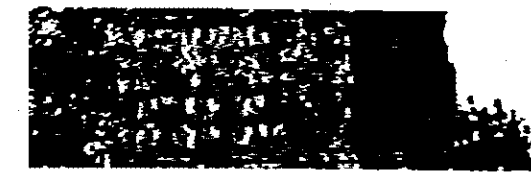
## What is Candi?

### Meaning of Candi

As a symbol of the cosmos, the candi is vertically divided into three parts; the base is the "underworld", the place for ordinary persons; the body forms the "middle world", the place for people who have left their worldly things and the top or the roof is the "upper world", the world of the gods. Horizontally, it is divided into the outer, center and inner yard (in Bali every pura or temple consists of 3 yards, i.e. the djaba, djaba-tengah and djeroan). The burial place is in the base of the candi, in the middle of which is a well preserved for a stone-casket (pripiti) containing the ashes of the deceased and various other things such as semi precious stones, metals, coloured earth, etc. As far as we know, only Hindu temples have such wells.



Roof (upper world)



Body (middle world)



Base (under world)

## Candi is a Symbol of the Cosmos

Ancient monuments are usually called candi. The name "candi" is probably derived from the word "Candika", one of the names of Durga as the goddess of Death. Consequently these candis are burial places (musofea) especially for kings and outstanding people of the time.

When a king or a prominent person died it was referred to as "cinandi" which means "placed in a chandi". The things placed in the candi were then the ashes of the deceased together with various things representing the physical and spiritual elements serving as symbols of the cosmos or a microcosmos. These ashes were placed in a stone casket which was next placed in a shaft (a well) in the base of the candi. Above this well and covering it, was then built the statue of some god of which the deceased king was the incarnation. This statue became after that the object of those who wished to worship their king. Ancestor worship has been a tradition amongst the Indonesians from prehistoric times.

## Rediscovery and Restoration

By the shift of the kingdom from Central to East Java in the beginning of the tenth century, Candi Loro Jonggrang underwent the same fate as the other temples in Central Java. It was neglected and left entirely at the mercy of nature. We only know from the oldest reports available, i.e. report made by C.A. Lons who visited Central Java in 1733, that the Candi Loro Jonggrang complex was then already in ruins and with a great part of it buried under the ground and forming a hill covered by trees and bushes. The upper part of Candi Loro Jonggrang was completely ruined. Considering the conditions it was in, it may have been caused by a big earthquake which according to people occurred in the year 1584.

### Cleaning of the Siva Temple

Only since 1885 efforts have been made to restore the temple by removing the dirt, exploring the area and arranging the stones; several restoration were carried out, but only on a small scale. Names of pioneers in the cleaning operations to help with the "rebirth" of Candi Loro Jonggrang are among others Ir. J. W. Yezeman, Dr. Groneman and Th. van Erp. Dr. Groneman, who was very enthusiastic but careless, collected all the stones, mixed them up and heaped them up in such a way that then a new mound of stones was the only result.

All that was preserved of the Siva temple was only the base up to the lowest part of the main body of the temple.



The siva temple after the cleaning

### Restoration of the Siva Temple 1937-1953

The year, 1918 was the beginning of exploration work, the careful selecting and arranging of the stones and trial reconstructions of the different parts of the Siva temple. This work was led by Perquin. At last in 1937, the actual restoration work could be started after overcoming all kinds of difficulties and shortcomings. After a leadership which kept changing hands from one person to another, (Bosch, Stutterheim, Ir. van Ramondt, etc.) the Siva temple was at last completely reconstructed on Dec. 20, 1953. Meanwhile several other temples had also been reconstructed i.e. the two Candi Apati, the corner temples and the Candi Keir (all these are in the main square) and two minor temples.



The siva temple in reconstruction

## 2nd Gallery: Vicissitude of Ancient Dynasties

Since the history of Java from about the middle of the 7th century, when Hindu-Java art reached a peak, to the early 10th century is not very clear, many scholars have formulated their own conjectures regarding it. Let us take a look at how Dr. D. Chihara has described that period.

### Ancient Java

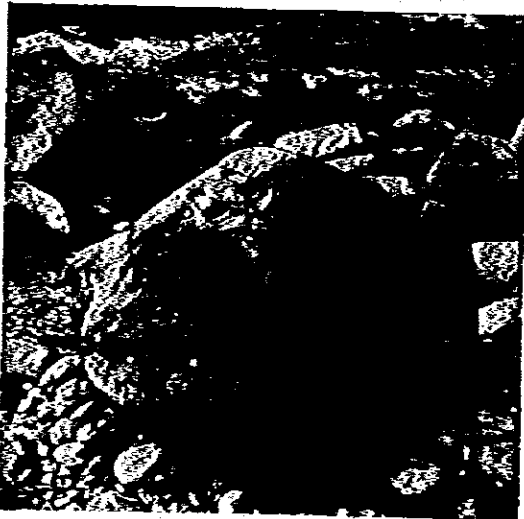
Although almost nothing is known about the Java of prehistorical times, Central Java is where the famous remains of "Java man", believed to be one of the oldest ever discovered were found.

There are also Polynesian megaliths to be found on the island, but they are very few in number. Except for the Polynesian element, therefore, the ancient culture of Java is considered to be derived mainly from that of India. People from India probably came to the island even before the birth of Christ, bringing their culture with them and mixing with the indigenous people.

On the basis of inscriptions discovered on monuments at various places on the island and references to the island in Chinese historical annals, it is believed that the influence of Indian culture on Java became very strong for several centuries after the birth of Christ. Thus, the original Javan culture blended with Hinduist and Buddhist religious thought and customs to form Java's ancient culture with its own peculiar religious art known as Hindu-Javan art.

### The Indianization of Indonesia

There are relatively few examples of direct evidence of Indianization of Indonesia in ancient times. The Mularman Sanskrit inscription discovered in eastern Kalimantan and said to date from the early 5th century and the Purnabarm inscription discovered in west Java, however, tell of the crossing to Indonesia of Indian in early times. The latter inscriptions, discovered at Ci Ampé northwest of Bogor in Jakarta province on several large river stones and dated from the middle of the 5th century, tell of the exploits of King Purnabarm of Taruma in orthography similar to the Sanskrit letters used by the Pallava Dynasty of southern India. This king's name is clearly an Indian name, and this can be considered an example of the existence of a kingdom in Indonesia that had been Hindified.



Inscription of Ci Ampé

### The Central Java Period

In the 8th century there was an explosion of religious artistic activity in central Java on a scale rarely seen in the cultural history of the world.

There were three main areas of such artistic activity, extending from the mountains of northwestern central Java to the extensive plain to the southeast. The first such area consists of the caldera Dieng Plateau on the southern side of Mt. Perahu, the western slope of Mt. Ungaran, and other nearby areas, all of which are volcanic areas in which strong sulphur fumes rise from bubbling lava flows. The second area is the Kedu basin, which is bounded on the north by the above-mentioned mountains, on the west by mounts Sundoro and Sumbing and on the other side by Mt. Merbabu and Mt. Merapi and through which the Progo, Ero, and other rivers run. This area has long been called the "Garden of Java" on account of its scenic beauty. About 40km farther to the southeast is the third main area in which the archeological monuments of central Java are to be found, the Prambanan plain, or the basin of the Opak River, which flows southward from the skirts of volcanic Mt. Merapi into the Indian Ocean.

### Mataram Dynasty in 7th to 8th Century

In the latter half of the 7th century or in the early 8th century at the latest the Mataram Dynasty, which believed in Shaivism, was founded in the area centering on the Kedu basin.

It is believed that the main architectural achievement of that dynasty was Candi Banon, which is thought to have been located very near Candi Borobudur and Candi Mendut but of which there are now no traces.



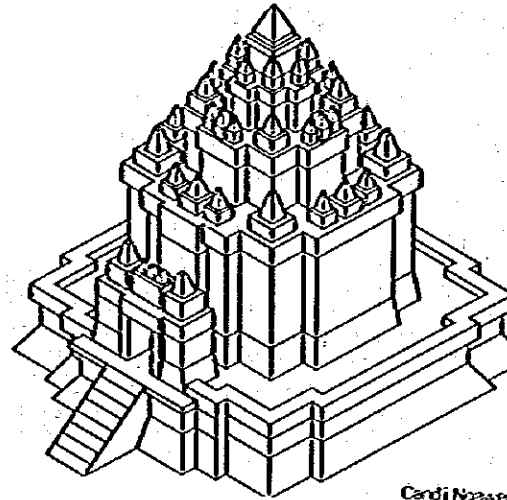
Statue of Candi Banon

In the Dieng Plateau, Mt. Ungaran, and other mountainous areas to the north, on the other hand, there were temple type candi of the northern type deriving from the architecture of the Pallava Dynasty of southern India as early as the second half of the 7th century. Furthermore, the Kalasan inscriptions testify to the fact that the Mataram Dynasty also wielded influence over the Prambanan area to the south.

### Sailendra Dynasty in 8th Century

Meanwhile, the Sailendra Dynasty of Mahayana Buddhists, which arose in central Java by about the middle of the 8th century, eventually settled in the Prambanan area, where the influence of the Mataram Dynasty was comparatively weak, while bringing in the culture of the Pala Dynasty of northeastern India and built there a large number of Buddhist temples, including the original Candi Karasan and Candi Sewu. At the same time it extended its influence into the Kedu basin to the north in peaceful coexistence with the Mataram Dynasty, which had already established itself there, and

built there the original Candi Mendut and Candi Ngawen, with brick bases next to Candi Banon. Furthermore, as the influence of Buddhism became still stronger, Candi Mendut was extended, and at about the same time work on Candi Borobudur, that great symbol of Buddhism, was started in the very middle of the Kedu basin. After firmly establishing itself in the Kedu basin and the Prambanan area, the Sailendra Dynasty completed Candi Borobudur, probably about the year 840, and put an increasingly great effort into the building and extension of other Buddhist candi as well, including extension of Candi Karasan and Candi Sewu. It did not, however, extend its influence north of the Kedu basin. Pressed by the rising tide of Buddhism in the Kedu basin, the Mataram Dynasty gradually shifted its emphasis to the area north of it, and thereafter Candi Banon, surrounded by Buddhist candi, gradually fell into disrepair and eventually disappeared entirely.



Candi Ngawen

### Mataram Dynasty in 9th Century

About 840, however, the two dynasties merged with the marriage of the 6th Mataram king Pitakitan to Princess Pramodawardhani of the Sailendra Dynasty. The two then cooperated in building the Buddhist Candi Plaosan and the Shaivist Candi Loro Jonggrang in the Prambanan area in the period around 850-860. Although the Mataram's king indirectly belonged to the Sailendra royal family, in fact the Mataram Dynasty exercised the real power, and it is a known fact that by the time of King Balitung (c. 898-910) it had already extended its influence to eastern Java.

### Loss of Central Javan Culture

Thus, the explosion of religious creative energy on a scale rarely paralleled in the cultural history of the world that resulted in the building of so many marvelous candis on the plains and in the mountains of central Java was suddenly extinguished in the early 10th century. Although the reason has not been clearly established and there are many different theories in this respect, the most persuasive would seem to be the theory that the area was visited by some great natural disaster such as a volcanic eruption or earthquake, one reason for so supposing being the fact that some very intricate architectural work was left uncompleted, which would suggest that original plans had to be interrupted.

With no one to look after them, these religious architectural structures became delapidated, and their bronze statues were melted down. Moreover, the porous volcanic rock that served as the main building material weathered badly after the flaking off of the protective surface coating of plaster.

Frequent subsequent earthquakes dismantled the cumulative structures of the temples, which were buried under layer after layer of volcanic materials from eruptions and thick tropical jungle growth.

## 3rd Gallery: Candis of Central Java Period

Let us take an overall look at the candi architecture of the Central Java period. Except for Candi Borobudur, which is of the stupa-type, most of the ruins are of the temple type and can be roughly classified as either the northern type or the southern type in terms of their architectural structure.

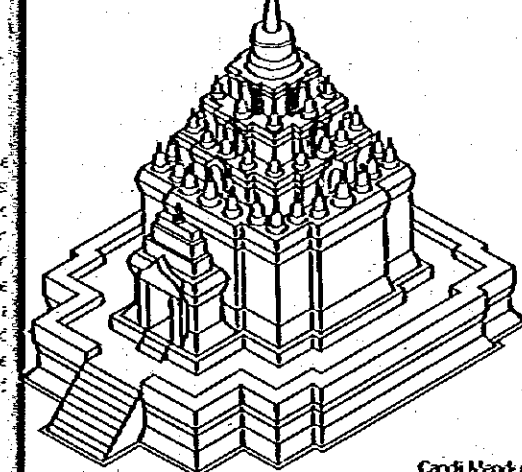
### The Architecture of Candi

The stone religious structures of the Hindu-Java period are generally called "candi." Their general characteristics are that most of them have a cumulative structure of large and small cut stones of the volcanic rock type and that the whole is composed of a complicated combination of sculpture elements, with the overall expression, too, being extremely sculptural. The many candis presently existing can be classified into a number of types from the standpoint of their religious character and architectural structure, including the following three kinds.

### Candis of Temple Type

Ninety-nine percent of the candi are of this kind. Originally they were used as graves of prominent persons, but later they became temples of statues as architecture indicating confession of belief. Some belong to Hinduism and others to Buddhism. The temple type candi are symmetrical right and left or have squarely symmetrical plans, with the statues or symbols of them being placed centrally in internal spaces of relatively small area.

In three-dimensional terms they consist of platform-shaped bases on the bottom, cubical body on top of them, and a terraced, pyramid-shaped roof at the very top. They are formed by a complicated combination of sculptural elements, and they represent single sculptural works in their entirety as well.



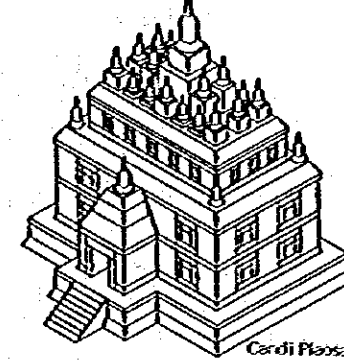
Candi Mendut

### Candis of Stupa Type

Stupa are pure Buddhist monuments in which Buddha's ashes or substitute objects are placed. They were originally mounds built as graves, with reliefs expressing stupa belonging to Jainism having been excavated in India. Since, however, more of them were built as Buddhist structures, they eventually came to be considered as uniquely Buddhist architecture. They have no internal architectural space at all, the entire outer appearance is a thick, heavy sculptural unit ruling over the exterior space. We can therefore call this kind of candi a stupa type candi. The most typical example of this kind of candi in Java is of course Candi Borobudur, which symbolizes Hindu-Java art. In fact, it is practically the only good example of this kind of candi on the island.

### Candis of Vihara Type

The viihara type of candi is an architectural structure for human habitation with a multi-strata, rectangular-shaped plan, several individual rooms, windows in the outer wall, and plenty of interior space. This kind of candi was not needed by Hinduism because in that religion people did not become monks and group together for ascetic living. Thus, they are uniquely Buddhist structures. In the Prambanan area of Central Java Candi Sari and Candi Plaosan are the only good remaining examples of them, most of them thought to have been built of wood.



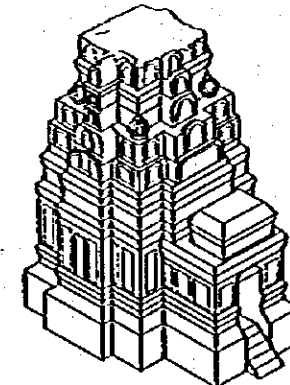
Candi Plaosan

### Candis of Northern Type

The northern type are those scattered in the northern mountainous area and belonging mainly to Shaivism. They are the most basic kind of temple type candi. In the way of structures of the same type in India from which they can be considered to have been derived, one can cite the Arjuna-ratha and the Dharmaraja-ratha in the Panca-ratha (630-668), left by the 7th century Pallava Dynasty in southern India at Mahabalipuram near Madras and the main hall of the rock temple Vettuvan Koyil run by the Pandya Dynasty at Kalugumalai near the southern tip of the subcontinent in the second half of the 8th century. While these Indian temples are monolithic, i.e., carved out of great rock masses, those in Java consist of cut rocks piled one on top of the other. This difference can be ascribed entirely to the difference in locational conditions with respect to acquisition of materials, and although the above-mentioned examples of ratha architecture have signs in their details of having developed from wooden architecture whereas those in Java had completely lost that element, the two resemble each other enough in many aspects to be able to ascertain that those in Java originated from those in India.

It is worthy of notice that these northern type candi were first built in Java in remote mountainous areas such as the Dieng plateau, which are over 2,000 m above sea level and the Mt. Ungaran, which are over 1,000 m in altitude. This fact can be directly linked to the Javan custom prior to the advent of Indian culture of building mausoleums in mountainous areas.

Most of these candi are Shaivist candi, which are closely connected with the Javan ancestor worship of ancient times as places for keeping portrait statues of those who have passed away.



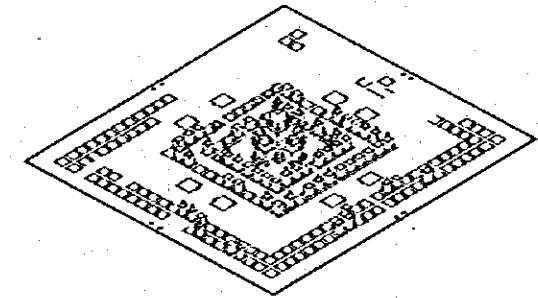
Candi Siva

### Candi Complexes and Candi Groups

Often candi instead of being built alone in isolation consist of groups in strict geometrical order in relation to one another, forming an overall unit of exterior archeological space. Such a group of candi is usually called a candi complex.

When two or more of candis seem to form a functional unit in themselves, usually called a candi groups.

There are many candi complexes in the Prambanan area, including Candi Loro Jonggrang, Candi Sewu, Candi Lumbung, and Candi Plaosan, and examples of candi groups are the Arjuna group on the Dieng highlands and the Gedong Songo group in the Mt. Ungaran.



Candi Sewu Complex

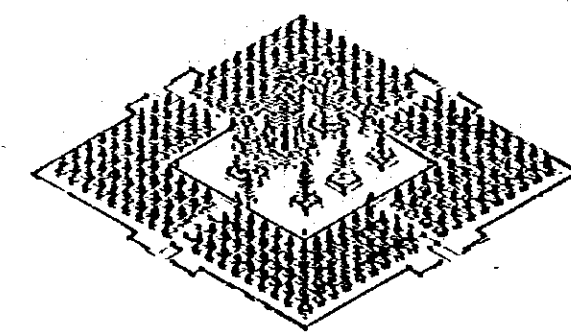
### Candis of Southern Type

The southern type candi are those, chiefly Buddhist, in the Kedu basin and in the vicinity of Prambanan. Of these, those in the Kedu basin have plans that are basically the same as those of the northern type candi, many of them having stairs and vestibules protruding from the front side only of the body, such as Candi Mendut and Candi Pawon. Those in the Prambanan area, on the other hand, have not only vestibules protruding from the front side but also side compartments prominently protruding from the other three sides as well. Moreover, they have stairs leading to the base on all sides instead of just the front side, and the plan of the body is in the form of a cross. These and other features represent further development of architectural space than in the case of the other candi of this type, good examples being the main halls of Candi Karasan and Candi Sewu. Furthermore the architectural scale is much greater than in the case of the northern type candi, and there is extreme development of sculpture as an integral part of the architecture, including the embossed carving and frieze of the base and the body, and the relief of the side walls of the body and edges of the wall and the entrances and other parts. Herein can be seen the highest level of Hindu-Javan art in all of its splendor and beauty.

### Candi Loro Jonggrang

In the same Prambanan area is to be found an example of another type of Candi different from both the northern type and the southern type that represents the shift to the next period, the Eastern Java period.

Candi Loro Jonggrang, the greatest Shaivist monument in Indonesia and the monument which stands together with Candi Borobudur of the Kedu basin as one of the two most splendid relics of Hindu-Javan art.





# Field Museum: Thousand Mysteries on Ancient Times

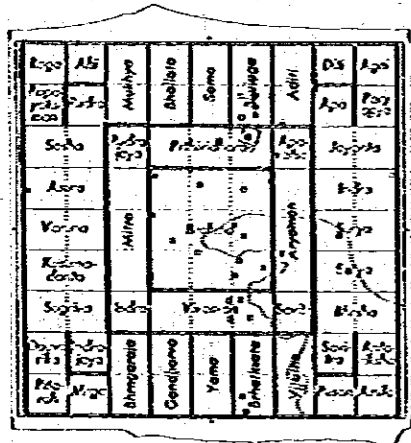
This will be an outdoor museum of the history of Prambanan and what it was like when the candi were first built. Both will be shown through proper layout of archeological artifacts and landscaping.

## Was Prambanan a City?

According to the Indian Shastra, both individual buildings and whole cities should be carefully designed by shapati, or architects, on the basis of the Mandala. The geography of Prambanan and the location of the ancient architecture suggest urban concentration more than they do rural communities. The initial construction appears to have taken place at the beginning of the eighth century, and although the subsequent scale of construction may have been limited considering the events of the next hundred years, one can theorize that the plan of the city — if there in fact was one — covered a square 8 km on a side, with Ratu Boko Hill slightly east of the center, a watershed running north and south through the middle, and a checkerboard pattern.

However, even considering the fact, as told in the later history of eastern Java (Nagara Kentagama), that the urban planned portion was rather limited, there is still much too little known about what the Prambanan area was like in ancient times since less than 5% of the area has been archeologically surveyed, and therefore in order to substantiate.

In order to substantiate this theory, it will be necessary to find archeological evidence of urban facilities, particularly a network of roads, and this will take many, many years.



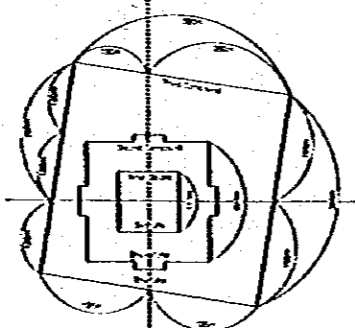
## Hindu Cosmos

Elucidation of the ancient history of the area covers (late organization, town location, industry, the life of the people, religious architecture, and the view of the world that the people of those times had).

In those days people thought of the whole world, on, below, and above the earth, as an orderly hierarchy. That is why they built their temples and towns along the same lines as this hierarchical pattern.

According to the Indian Shastra treatise on architecture and town planning, the basic shape of the plans of temples and towns is the square, divided into smaller squares each of the same size and the same number vertically and across containing the constituent elements. Furthermore, since temples often were a three-dimensional representation of the three worlds — the world below the earth, the world on the earth, and the world above the earth — we can find them expressed in the architectural profile of each.

To the modern eye, the rich expression of detail in such temple architecture may look like mere decoration, but to the people of those times it was more a visual expression of the constituent elements of the world.



## Chronological Map

The influence of Indian culture on Java started about the first century A.D. At first the Javadvipa (early 2nd century) and Tarumanegara (middle 5th century) kingdoms flourished in west Java, and then in the 7th and 8th century the center of Javan history shifted to the central part of the island, where the culture of the Gupta, Pallava, and Pala dynasties of India in their prime were imported, with a great deal of building of temples taking place first in the area extending from the northern coastline to the mountainous areas of central Java and later in the Kedu Basin and on the Kewu Plain to the south.

The historical cultural assets that we are concerned with here belong to that central Java period, which extended to the beginning of the 10th century, after which the center of political and economic life on the island shifted to the east, where the well-known Majapahit Kingdom, for instance, ruled over a broad territory for about two hundred years from the beginning of the 13th century.

## Mystery of the Third Boundary of Candi Loro Jonggrang

There are a number of "Archeological mysteries" surrounding the Prambanan area which even now await clarification by archeological surveys and studies. One such mystery is the fact that the north-south axis of the third compound of Candi Loro Jonggrang is inclined approximately ten degrees to the east from those of the first and second compounds. In asking ourselves why, we feel ourselves drawn into the misty past all the way back to the 8th century A.D.

Our explanation of this inclination of the third compound of this candi is as follows.

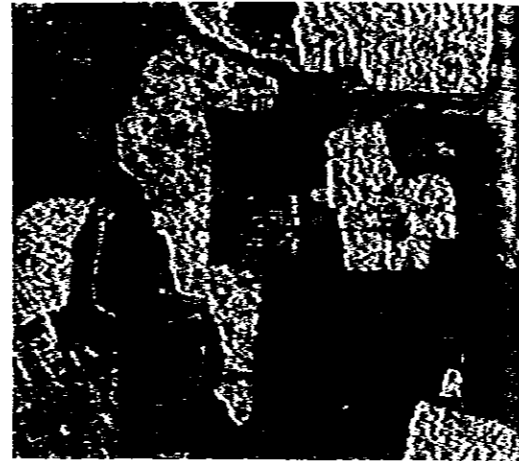
The outlines of the town of Prambanan, where Candi Loro Jonggrang is located, were already determined in the 8th century. Accordingly, the location and direction of Candi Loro Jonggrang were determined in relation to Candi Sewu (end of 8th century) to the north, with no possibility for subsequent change. Also, there was another temple on the same site beforehand (according to Dr. Voute), Candi Loro Jonggrang having been built as a renovation of it, and that was all the more reason why the location was definitive.

Now, this being the peak of the Prambanan period (according to Ratu Boko inscriptions), the builders wanted to make Candi Loro Jonggrang a large candi measuring a full 400 m on a side. However, the fact that the Opak River, which frequently flooded in these days (according to a Kelurak inscription dating 782 A.D.), ran along the west side of the temple made it difficult to extend it in that direction. The only way such a large temple could be built under such circumstances was by making the third compound slant a little. Furthermore, this solution made for regularity in that it put the east and south gates of the temple on its axial line and the north and west gates in such a position that the axial line cut the fence in a ratio of 1:2 as justified for astrological reasons.

This slant can therefore be said to have been built in at the time of construction of Candi Loro Jonggrang in the middle of the 9th century.

## Candi Sewu Complex

This is the largest Buddhist monument in the Prambanan area, with rectangular grounds that measure 185m north-south and 165m east-west. Along the north-south and east-west area at a distance of about 200m are located the vanguard candis of Asu (east), Kulon (west), Bugrah (south), and Lor (north) as gate ways to Candi Sewu at which the gods protecting it were worshipped. "Sewu" means "thousand". There is a total of 253 buildings in the complex arranged in a Mandala pattern around the central main hall as an expression of the view of the universe of Mahayana Buddhism and Symbolizing the three worlds of Arupadhatu, Rupadhatu, and Kamadhatu.



## Ancient Foundation 1-6 Meter Underground

The original ground level of the monuments can be surmised from the existing ground level of the compounds and the ground level in the vicinity after excavation. At Loro Jonggrang it is thought to have been 1-3m below the present level, and at Candi Sambisari, 6 km to the west, 5-6 m below the present level. This means that historical evidence covering a period of approximately one thousand years lies between the original ground level and the present ground level. It will therefore be necessary to carry out careful archeological investigations prior to park construction and to continue to make every effort in the future to preserve the original ground level insofar as possible.

We can surmise that the central Java was roughly as follows in ancient times on the basis of the inscriptions and artifacts that have so far been found and the historical records of the later east Java period.

The country was politically and economically controlled by the great Maharaja, who was the image of the Hindu god and his royal family as well as central and local bureaucrats. Allied with the priesthood, they were also backed up by the military, and they probably accounted for 15-20% of the total population, the rest consisting almost entirely of farmers and people engaged in commerce and industry, who accepted their political and economic domination in return for their spiritual and military protection.

Most of the country consisted of agricultural land. Not much progress has been made, however, in research on the state of agriculture and rural villages in those days because of overlapping of their irrigation and other agricultural facilities and villages with those of the present day, which makes it hard to distinguish between the two.

The situation is quite different, however, for urban areas since it is thought that the concentration and design of urban facilities were very much different than today.

It is to be hoped that future archeological discoveries will go a long way in filling in the missing pieces of this sketchy picture of what the area was like in ancient times.

# Prambanan Archeological Office

The following is an explanation of the (1) functions, (2) organization, (3) activity plan, and (4) facilities of the Prambanan Archeological Office in the Central Java and Yogyakarta Special District area.

## Function of PAO

This office, which will serve as a branch archeological office of the Ministry of Education and Culture in the Central Java area, will be in charge of administrative, research, and all other aspects of management of the many archeological ruins to be found through the area, including maintenance, excavation, systematic investigation and documentation, and publicity and public relations activities regarding such research. It will replace the facility presently located on the grounds of Candi Loro Jonggrang.

Its functions therefore fall under four categories:

- 1) Keeping of archeological records of monuments, artifacts, etc. and preparation of archeological survey diagrams.
- 2) Maintenance, management, repair and restoration of monuments and artifacts and administrative guidance with respect to archeological sites belonging to individuals and local government entities.
- 3) Excavation and surveying of monuments still not unearthed, including archeological and historical research, research on scientific methods of preservation, surveys of impact on archeological and historical environments, and research on means of environmental preservation.
- 4) Publication of archeological and historical information and information regarding preservation efforts as well as management of student and citizen use of facilities.

## Activity Plan

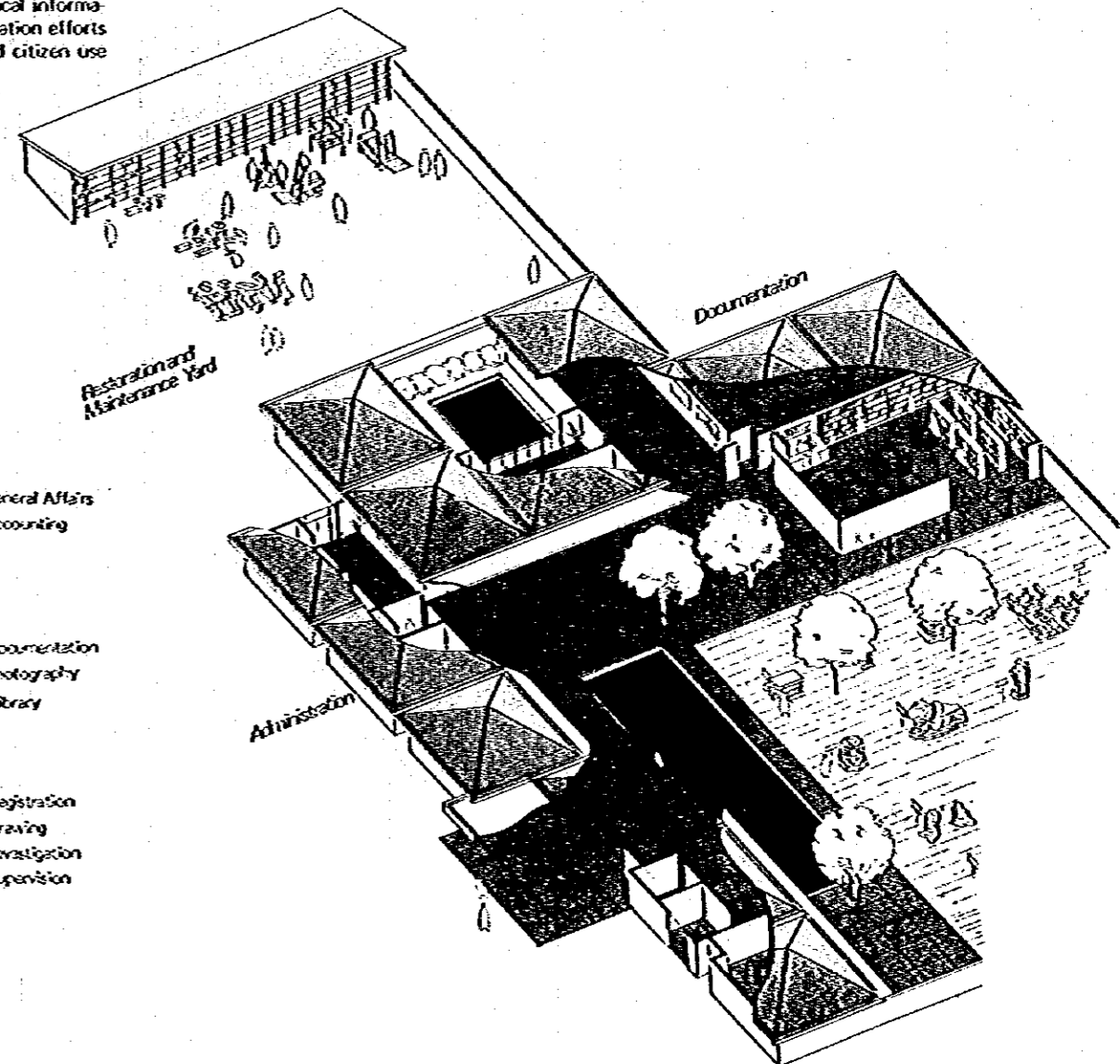
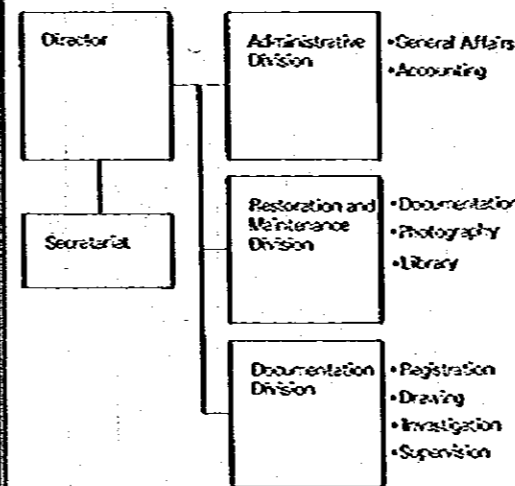
The policy goals of archeological and historical administration are indicated in the following diagram.

These policy goals, rather than being indicated by the administrative authorities themselves, are meant as an indication of what directions the development of activities for preservation of the archeological and historical environment should take and the amount of effort in the way of research and preservation measures that will be required in the next fifteen years considering the amount of development that will take place in the area during the same period of time.

For example, if 1.5-2 times the amount of work in the preceding 5 year period will be required in the five years thereafter, it will be necessary to include financial, personnel, and facility planning in the earlier planning.

	Pelita II	Pelita III	Pelita IV	Pelita V
Research and registration	Sambisari			
Maintenance and conservation				
Restoration	Sambisari Borobudur	Loro Jonggrang		
Archeological historical studies and promotion				

## Organization of PAO



Let us consider quantitative expansion and internal organizational change in the facility planning.

In order to carry out their functions properly each of the two park operation corporations will need a staff of about 300, the particulars of assignment differing between the two parks because of the difference in their sizes and in the number of sanctuaries outside them. Assignment will probably be along the following lines:

Besides the above park operation corporation personnel, there will be 50-60 government archeological personnel and 100-110 management personnel and employees of the park concession facilities, for a total of about 450 in the case of each park. In hiring, priority is to be given to local people, the quota for them being 70-80%.

# Chronological Chart

The Chart provides over view of the Indonesia's history from focusing upon Central Javanese history view points of time, geography and regional relationships.

**Prehistory**  
The first group of Java men who settled in the valley presents the dawn of man's history. They include homo erectus of approximately 50,000 years ago, discovered in Sangiran, north of Solo, homo sapiens Soloman found together with elephants, other animals and tools, and Wajakman of 10,000 - 12,000 years ago discovered in Brantas River. The second major inflow from the north were deuterio Malays, who utilized bronze and iron and had primitive technique of rice growing by irrigation as well as that of navigation.

**Javadvipa, Indianized**  
Javadvipa, an Indianized country, was the first state established in Indonesia, which paid a tribute to China in 132 A.D. The country is estimated to have been either in present Java, Sumatra or Kalimantan from old records in China and that of Ptolemaios.

**Tarumanegara**  
In the mid-fifth century, a nation called Tarumanegara strongly influenced by Hindu culture was situated in western Java. The relics of this ancient state discovered so far include a stone inscription with king's footprints, two statues of Vishnu and Candi Cankuang. Hinduism and Buddhism were already imported in Sumatra and Kalimantan at this era.

**Mataram and Sailendra**  
Two states, Mataram (of King Sanjaya's lineage) and Sailendra (King Bhanu's lineage), coexisted in central Java from the seventh to the ninth century. The former constructed Hindu temples in Dieng and other highlands and later in Kedu plain. The latter was the builder of Borobudur, Loro Jonggrang and other large-scale temples in the plains of Kedu and Kedu.

**Shrivijaya**  
Malayu and Srivijaya, which were founded in about sixth century, were large Hindu empires that held their strongholds on the Malacca straits. For about 150 years from the mid-ninth century, the empires enjoyed political and economic influence not only over Java but also over the entire Southeast Asia.

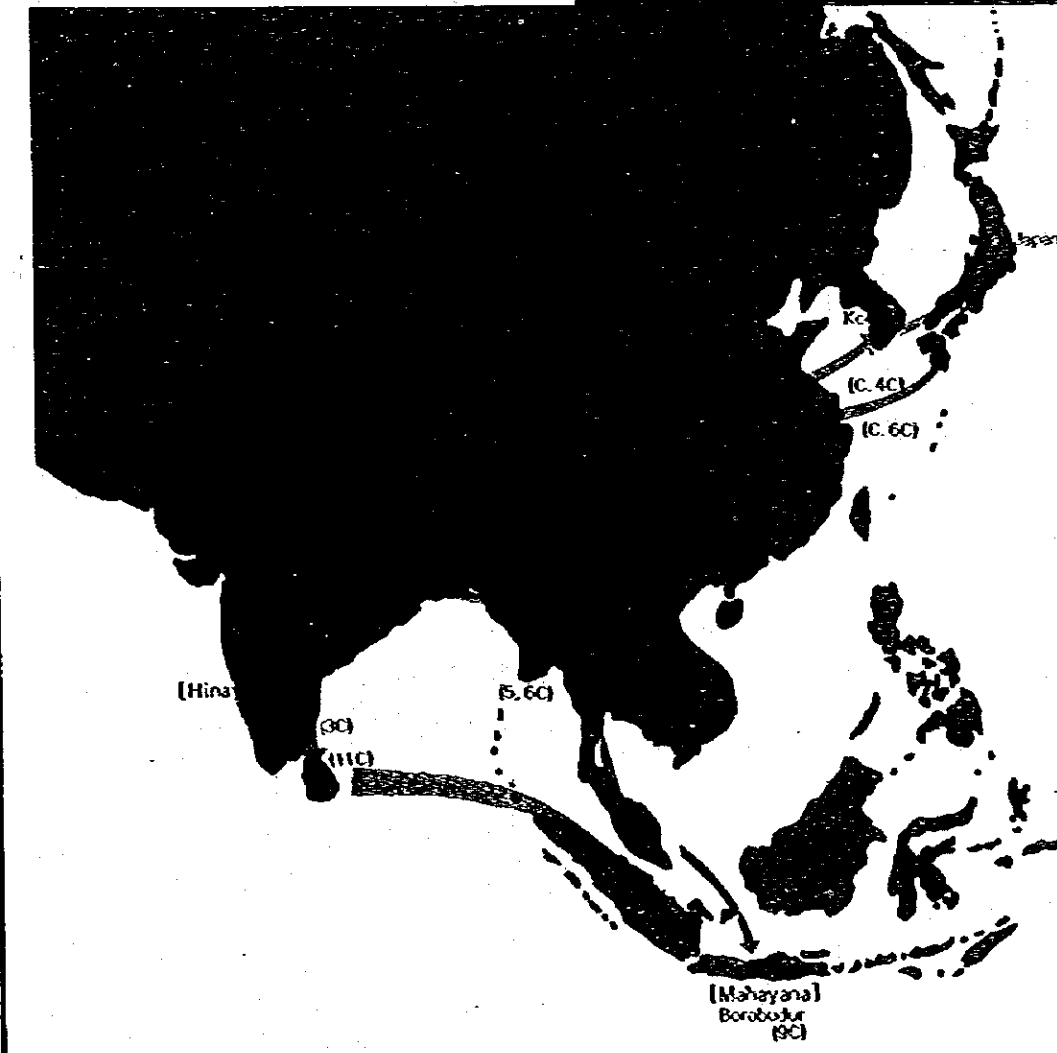
**Singosari and Kediri**  
From about 930 A.D., the seat of politics moved from central Java to eastern Java. The island was divided into Singosari and Kediri in 1049 A.D. Bali remained independent from early 10th century through the end of the 12th century, creating the basis of its culture that flourish today.

**Majapahit and Mataram**  
The Majapahit Kingdom, which unified eastern Java in 1294 A.D., unified entire Indonesia in the 14th century under the leadership of its prime minister Gajah Mada. Hindu culture was further Javanized during this era, and Nagarakertajama, a historical records of great importance, was compiled. After the fall of Majapahit in 1527, central Java was governed by Islamic Mataram Kingdom.

**Dutch Occupation**  
Among the European nations that embarked on trade with Southeast Asia at the end of the 16th century, the Netherlands opened VOIC in 1602 and occupied Indonesia for the following 350 years until the nation's independence in the mid-20th century. The population of Java around 1800 was 5 million.

**Independence**  
The nationalist movement that gathered strength from the beginning of the 20th century reached the peak when the nation became independent in 1945, and then have been directed toward the construction of a modern state. The nation is making special efforts for the social and economic development projected from the latter half of 1970s to 1980s. The population of Indonesia in 1976 stood at 135 million, of which 85 million lived in Java and Madura.

Dynasty	Sumatra & other islands	JAVA	Indonesian Culture	Contemporary Event
4000 B.C.			- Homo erectus, homo sapiens lived in Java - New stone age Proto-Malays come - B.C. 2500-300 Deuterio-Malays of bronze, iron culture come	3.C. 6C Buddhism, Jainism originate 3.C. 3C King Asoka develops Buddhism which spreads to South and China
B.C.				
A.D.				
		Javadvipa	1st Indianization	Mahayana Buddhism originates Gandhara Arts
100			A.D. 132 Emissaries from Javadvipa to China	
200				
300				
400		King Mulawarman Tarumanegara King Purrawarman	2nd Indianization A.D. 414 Fah-hien reaches Java and Sumatra Hind. Kings at Muara Kaman & Kalimantan	
500				
600			3rd Indianization and Localization Buddhism spreads in Central Java	Buddhist cultural influence to the East Fah-hien (Chinese) to Ind. Kumaraja to India.
700		Kaling (Sailendra?)		Genjo, Gijo to India
800			A.D. 778 Construction of Kalasan Ratu Boko inscription	Islam influence to Ind.
900			Construction of Borobudur Construction of Loro Jonggrang Const. of Prambanan capital (?) Balaputra's (Srivijaya) monastery at Nalanda	
1000		East Java Mataram 1049	Tantrayana Buddhism spread Buddhist Sanghyankamayanikan composed Mahabharata adapted into Old Javanese East Java literature developed	
1100		Singosari and Kediri	First indication of Islam in East Java	
1200		Majapahit 1294	Marco Polo arrives at East Ache	
1300		Gajah Mada's unite of entire archipelago Majapahit	Nagarakertajama	
1400				
1500				
1600		C. 1582 Mataram	East Indies Company established (Batavia)	
1700		1755		
1800			E.I. Company closed English occupation of Java (1811-1816) Land reformation Forced cultivation system	
1900		English occupation of Borneo 1904 1945 Dutch Indonesia established Republic of Indonesia	1928 Sukarno INP, 1956 Bandung Conference 1967 President Suharto 2nd Restoration of Borobudur	



# Historical Background

Here we shall explain in outline the history of Central Java during the Hindu-Java period and the religious architecture, or candi, that were built in those times as an historical background for the detailed analysis of cultural assets and the preservation planning suggestions that are to follow as well as as a source of ideas for the planning. Indonesia is a large country with many different ethnic groups and with a diverse religious spiritual structure, and the Hindu element figures prominently in that structure. In our opinion it ought to be further developed and preserved for future generations.

## History of Central Java in the Hindu-Java Period

Central Java, along with Sumatra, was the central stage of Indonesian history in the 8th, 9th, and 10th centuries, when Hinduized kingdoms were established and Hindu and Buddhist cultures flourished there. It is not difficult to imagine how strong the Indian influence was in almost every field, including the political structure, agriculture and other industry, and building technology.

An understanding of the ancient history of Central Java will make it easier to understand the present day material and spiritual culture of the Indonesian people, much of which is based on the culture of those times. (Dalton, Indonesian Handbook)

The architecture of those times that still remains today and the religious culture of those times impress people in terms of both their Asian commonality and their Indonesian particularity.

Not only will they be a source of pride of the Indonesian people in their history and culture, but they will also be highly appraised in terms of building a diverse modern international society of coexistence.

### Hinduization

The first wave of Hinduization of Indonesia, as in the case of the countries of Southeast Asia, occurred in the 1st and 2nd centuries A.D., and the first strong influence of Indian culture in Java took place about the 5th century, the main fields affected being, as previously mentioned, the political structure and architectural and agricultural technology.

### Tantric Buddhism

Since Vajrabodhi (Kongochi, 671 - 741 A.D.), a native of southern India who brought Tantric Buddhism to China and Ceylon, resided in Sumatra at the beginning of the 8th century, it is easy to imagine that he also propagated this religion there in its early form, which underwent further development after being brought to Java in later years. (Iwanoto, Buddhism of Indonesia) Hinduism, and particularly Sivaism, also thrived under the various Javan kingdoms and underwent diverse development in conjunction with Indonesian ancestral worship.

### Syncretism

As indicated by the Sanghyang Kamahayanikan (Seidajoron), which arose before the 11th century A.D. in the Kediri Dynasty in East Java, Hinduist gods were accepted by Buddhist temples, and the belief that Siva and Buddha were one and the same gained currency. This syncretic belief, called Jaman Buddhism, was already in evidence in Central Java about the 9th century A.D. Central Java in the 8th and Succeeding Centuries.

It was in the 7th and 8th centuries that the change of Indian culture into Indonesian culture came into full swing in Central Java. One can imagine that this process went quite far not only in religion but also in agriculture, daily life, the form of cities, and so on, although little is known about it in specific terms. This is attested to by the fortifications and architectural ruins dating from those times that are still in existence in the Central Java area.

At the beginning of the 8th century King Sanjaya of the Mataram Dynasty "bravely conquered the neighboring kings to bring order and peace to grain and gold rich Java." (Cangal Inscription, Kedu, 732 A.D.)

In the second half of the 8th century Mahayana Buddhism spread over Central Java as the Tantric Buddhist Sailendra Dynasty won victory after victory on the battle field. (Kerurak Inscription, Kewu, 782 A.D.)

The following are the names of kings mentioned in inscriptions in the Central Java area, their rules averaging 10 - 20 years

Sanjaya (732 A.D.), Panangkaran (778 A.D.), Panunggalan (800 A.D.), Warak (800 A.D.), Garung (819 A.D.), Pikatan (850 A.D.), Kayuwangi or Pulokapala (862 - 3 A.D.), Gurunwangi (887 A.D.), Dewendra (890 A.D.), Watuhumalang (896 A.D.), Balitung (899 A.D. - 910), Daksa or Daksojama (913 - 15 A.D.), Tiodhong (919 - 21 A.D.)

In the middle of the 9th century a revolt occurred on Ratu Boko Hill in the Kewu Plain. The victor was King Kayuwangi, who built a commemorative Linga and temple (probably Candi Loro Jonggrang), and the loser was Balapita, who later became king of the Srivijaya Kingdom on Sumatra and built a Buddhist monastery at Nalanda, India.

With frequent such internal unrest, the abode of the king shifted four times in the middle of the 9th century. These kings were active not only in the interior of the island but also on the sea (Ratu Boko Inscriptions, 856 A.D.). From these facts one can surmise that the territory under their control increased substantially.

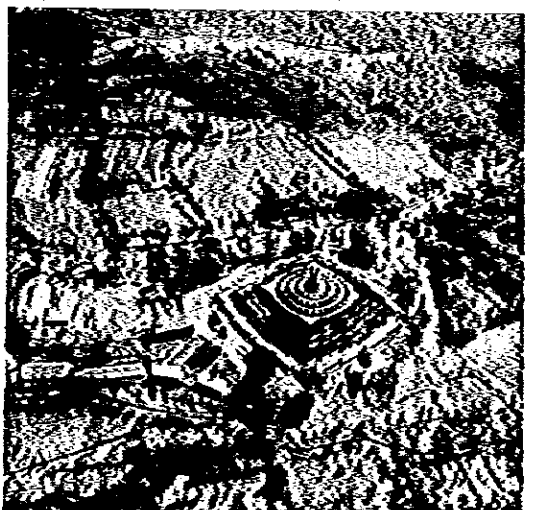
Although the stage of Javan history shifted to eastern Java about 930 A.D., the existence of relics in central Java (Jakarta Museum) and Candi Sukuh and other ruins indicate that Hinduism continued to be practiced in the interior of the island up to the 12th or 13th century or even up to the 15th century. This is further substantiated by the fact, for instance, that, according to legend, King Brawijaya, the last king of the Majapahit Dynasty, was buried at Sukuh (Dalton, Indonesian Handbook). Accordingly, even in this day when the country is predominantly Moslem, Hinduism can be said to form the base of the spiritual structure of village life.

### Administration

Under the king in these Javan kingdoms were high officials called Mahamantri, aristocrats called Rakarayan, and monks and priests, people engaged in commerce and industry, and agricultural peasants.

The national territory was divided into the Watak, or territory directly belonging to the royal family, and village level "wanua", controlled by elders called Rama.

The land was divided into five categories: "sawah", "gaga", "tegal", "kebuan", and "alas". Land donated to temples was called "sima".



## What's Candi in Java Island

### Definition of Candi

The Indonesian word "candi" is a broad term referring to all of the religious architecture of the Hindu-Java period, including stupa, vihara, shrines, and the temple. It was derived from another name of Durga, the Hindu goddess of mortality: "Candika".

As the residences of Hindu and Buddhist gods, cany symbolised the world. Accordingly, their architectural structure, in close relationship to the religious stat and reliefs, can be interpreted as an expression of the three worlds of Hinduism, the Bhurloka, Bhuwaloka, and Svarloka, or of the three Buddhist worlds, the Kar dhatu, Rupadhatu, and Arupadhatu, the foundation main wall, and roof corresponding to them.

Special features of the outward appearance of candi their rich overall sculpture work and the structure their roofs, which are either 3-stage hipped roofs polygonal roofs and which are decorated with rajawels in the case of Hindu temples and bell-shaped stupa in the case of Buddhist temples.

### Materials and Structure

Almost all of the candi remaining to this day are made of blocks of andesite rock. There were also baked brick and wooden structures, but none of them have stood the test of time, at least above the ground.

In the case of stone and brick candi, quoining arch and vaults were used for covering space, and there were no voussoir arches such as those that were to be found in India and Burma.

Accordingly, the interior space was at most 26% (Plaosan) to 36% (Kalasan) of the area covered with the walls. Since the interior space on the first floor was only about 75m<sup>2</sup> (Plaosan), only thirty priests or members of the royal family at most could be seated at one time.

The situation was somewhat different in the case of large wooden structures. At the Ratu Boko Palace, for instance, there was the wooden Pendopo Hall as a square structure measuring 20 m on a side, for a floor area of 400 m<sup>2</sup>, on top of the rock built foundation. Besides the 200 - 500 persons that could be accommodated inside, another 1,000 or more could gather in the open space in front of the main entrance.

It is thought that wooden structures such as this were very similar to those of today, consisting of beams and rafters on two rows of columns and with roofs covered with chopped iron wood or baked earthen tiles.

### Plan

The plans of the candi were no doubt based on the sastra technical standards and mandala division system of India.

The main feature of such plans was, as in the case of the Buddhist Candi Sewu and Plaosan complex and the Hindu Loro Jonggrang complex, the location of a main temple and many auxiliary temples in a large square compound measuring as much as 200 m on a side.

As shown in the reliefs of Candi Jawi and Jago in eastern Java, the sangharama and temple compounds were probably well developed in central Java as well (Kempers, Borobudur). Next to the stone-built sikhara and spires were built wooden pagoda, vihara, etc.



# Archeological Inventory

This is a summary of the process of preparation and the results of the archeological inventory that has been prepared on the basis of joint surveys by the Indonesian and JICA study teams for preservation of the monuments and easy reference. Another purpose of such a study of architecture and cities has been the recovery of historical patterns and modules to serve as a basis for planning. Some of the results are given below.

### Inventory and Output

The first inventory reports in detail on the most important monuments, Candi Borobudur and Candi Loro Jonggrang (pp. 67 - 68), the second reports on 16 other candi in the Kewu and Kedu areas that are to be sanctified (pp. 69 - 70), and the third reports on a total of 92 other existing candi, candi that no longer exist, and other archeological discoveries (pp. 71 - 72).

### Definition

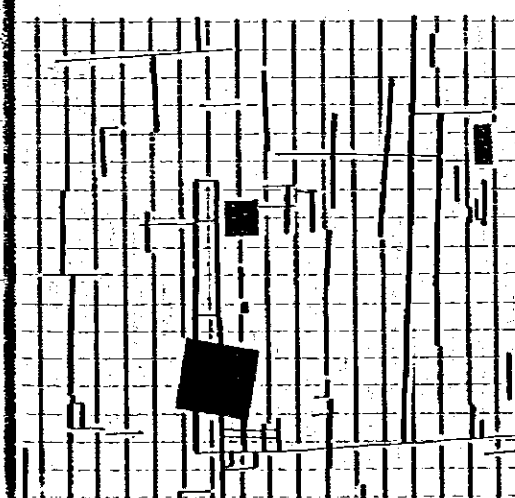
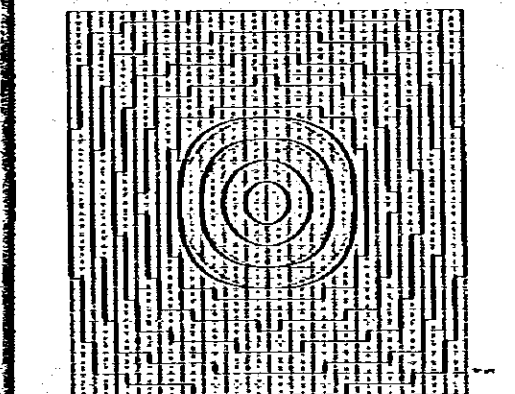
A complete identification of cultural assets, the inventories give the name, date of construction, construction type, religious significance and function, history of location, physical characteristics of the grounds and buildings, and present conditions and problems in terms of preservation of each asset.

### Purposes

The purposes of preparing these inventories are as follows:

- 1) For registration and preservation of cultural assets that are apt to change or difficult to preserve.
- 2) For promotion of research, education, and understanding by providing easy reference for experts, the general public, and students.

## Module of Candis and Prambanan City



(3) To encourage a fresh outlook on the part of administrative officials and other concerned with formulation of preservation policy, including the purpose of providing basic materials for the present planning for preservation and utilization.

### History of Inventory

The first inventory was prepared in 1914/15, reporting twenty thousand archeological monuments throughout the country and 2,189 candi and benteng (stone and earth enclosures around kota, town in Java and Madjara). Another survey was made in 1923.

The present inventory has been prepared on the basis of three methods - documentary research, field surveys, and questioning of local residents - as a joint undertaking of the Indonesian and JICA study teams in 1978. Supplementary use was also made of aerial photography to verify locations.

### Limitations

Because of personnel and time limitations the present inventory is limited in its scope, depth, and precision. In particular, it has not been possible to include other tangible and intangible cultural assets than architectural and archeological ones even when they have been considered necessary for the present project. These shortcomings will have to be made up for by continuing organized efforts on the part of administrative authorities and experts in this field.

### Report Items

Besides name, location, jurisdiction, date of construction, construction entity, religious significance and function, physical state of grounds and buildings, and problems with respect to preservation, actual survey maps, photographs, and a plotting map on a scale of 1:2,000 have been given (see pp. 91 - 94).

### Temple Design Pattern and Module

It has been concluded that a 50 cm "hasta" or cubit was the standard of measurement applied in the overall plans and individual parts of each temple or other architectural structure. Furthermore, it has been discovered that if the plans of the Borobudur, Kalasan, and Sewu candi are indicated on the basis of this module and a square grid mandala pattern, there is fairly good consistency with the actual plans of such structures.

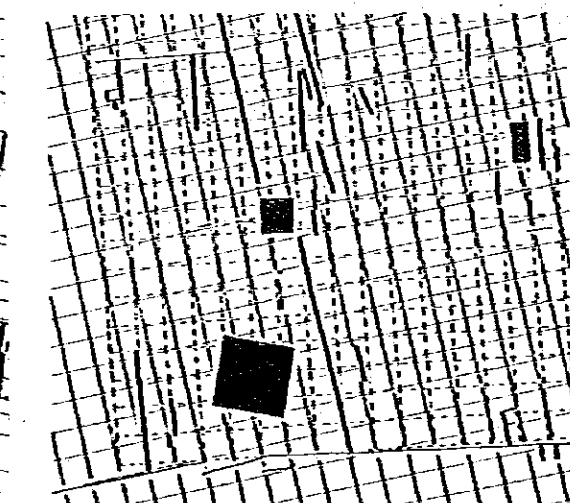
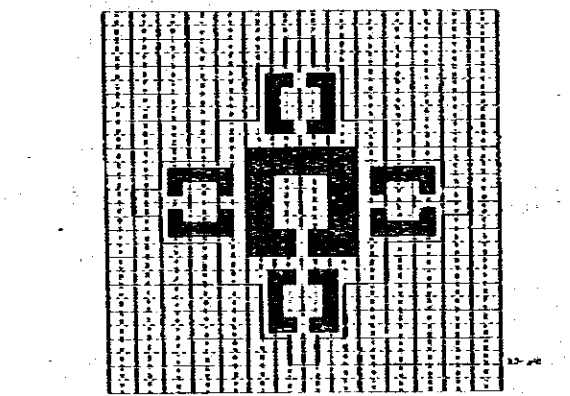
In addition, it has been deduced that an Indian module was used for the most part up until use of this module.

In conclusion, it can be said that these module and grid patterns have been used as a design base in the overall planning of the parks.

### Prambanan City Plan

It is not clear to what extent there was planned urban construction in the Prambanan area in the 8th, 9th, and 10th centuries. Assuming, however, that urban development there in those times followed a grid pattern of the India type and that the present land use pattern still resembles that of those times because of inertia, it is possible to identify the following three patterns. One is a pattern with a 200 m grid both north-south and east-west which fits in fairly well with the directions and locations of the monuments and the rest of the present land use pattern. Another is a 150 m or 300 m grid pattern tilting about 10 deg. to the east that conforms quite well with the third compound of Candi Loro Jonggrang and the rest of the land use pattern. The third is a 200 m grid pattern tilting about 10 deg. to the west that conforms somewhat to the irrigation channel pattern and appears in overlap with the first pattern.

Although this study covers a limited area, the first pattern, which has been taken into account in the park planning, should serve as a base for future study since it also conforms well with the results of the excavation survey around Candi Sewu conducted in 1978. Needless to say, it will be necessary to pay attention to the existence or not of an ancient road pattern in the pre-construction surveys.



# Candi Borobudur

Here is an introduction to Borobudur, a Buddhist stupa that is one of the most significant cultural heritages of man, in accordance with the form of Archeological Inventory. In the end, as a conclusion, problems involved in the conservation of Borobudur are pointed out and a master plan for coping with them is suggested.

Code Number: BR-32.  
 Designation: Candi Borobudur.  
 Typology: Buddhist stupa, temple.  
 Location: Standing in a straight row, the triad of monuments Mendut, Pawon and Borobudur forms a symbolic unity.  
 Period of Construction: Ca. 790-800 A.D.  
 Builder: Sailendra dynasty. A folklore attributes to Gunadharma.

Inscriptions, Old Records, etc.

Kawi inscription was found on the wall frame of the foundation, invisible from the outside. Magelang inscription dated in 842 A.D. states that a tribute was paid to "Bhumi saribarabudhara," which is assumed to have been Borobudur. A Japanese chronicle, *Badaï Tanah Djawi* notes that Yogya prince paid a visit to the thousand statues of Borobudur around 1758. Sir T.S. Raffles commissioned H.C. Cornelius in 1815 to institute investigations about the Temple of the Thousand Buddhas. This is the year when Borobudur was discovered in the modern age.

## Buildings and Temple Yard

The monument is built up of more than 55,000 cubic meters of andesite blocks mantling around the top of the natural hill which was artificially enlarged using foamy soil from the immediate surroundings and forms the nucleus of the monument consequently.

Borobudur, built in the form of nine-storied step-pyramid, can be divided into two lower and an upper structures.

From below, there is a square foundation (maximum 123 m x 123 m), on which lay five tiers of square platforms and then three tiers of round platforms, which support a huge seated and bell-shaped central stupa (16 m in diameter). The present height is 31.5 m, as compared with the original height of 42 m. The structure is of an andesite stone block masonry with dry joining.

The original boundary and the layout of temples Borobudur is unknown. However, the existence wooden viharas within the radius of about 300 meters inferred from the discovery of copper nails. In this are stone drain ditches radiates from the stupa.

The main access is in the east side of the temple, a Pawan and Mundut are located on the extension line 1.75 kilometers and 2.9 kilometers from this spot respectively. Ruins of a brick road with a 1.5-m-h stupa on each side have reportedly been discovered approximately 300 meters outside the temple on the extension line (Mr. Suyoro), but there are no details

of this discovery. A recent excavation, undertaken in conjunction with the ongoing restoration works, unearthed some silver and copper inscriptions, a stupa of about 15 cm and others totaling about 200 pieces, indicating the completeness of the sanctuary in the ancient times.

Although the original landscape is not known, the following ceremony suggests that the planting of Bodhi trees took place.

On the celebration of Buddha's birth-Waisaka in 1934, a cutting of the Bodhi tree was planted east of the Borobudur by Narada Mahatera, which was succeeding the best historical tree at the Thuparama Dagabo in Ceylon.

## Problems of Preservation and Suggestions

There are the following three problems involved in the conservation of Borobudur.

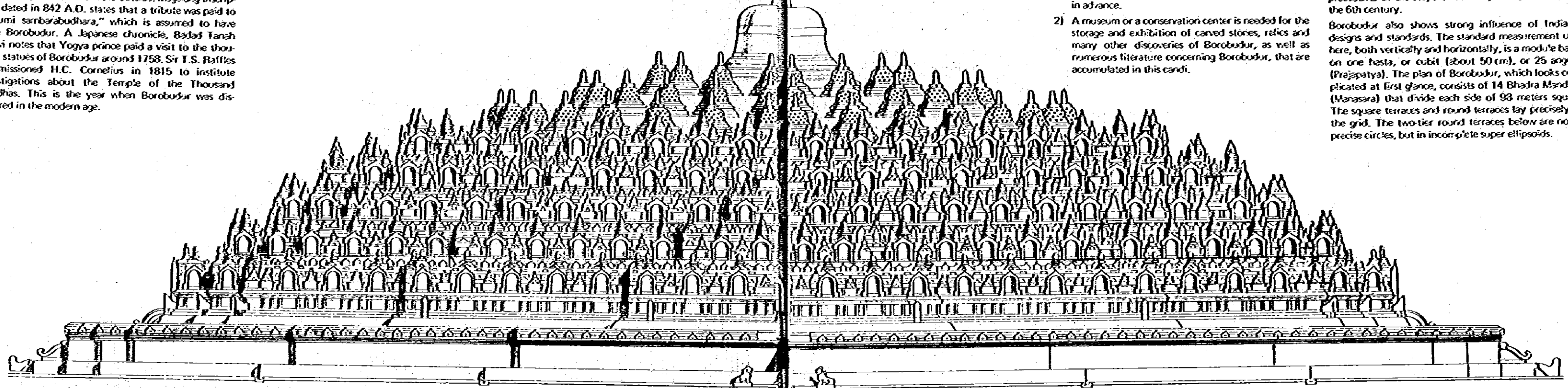
- 1) The symbolic value of Borobudur is inseparable from the natural beauty of Kedu Basin. As Borobudur has come to attract 500,000 tourists annually, however, commercial, housing and industrial development of the neighboring areas is anticipated. In particular, Dagi Hill, located only 700 meters away, and its neighboring areas need conservation in their land use, vegetation and overall view, since they are an important factor of the historic view. Countermeasures that can be suggested here include public ownership of the land and legal control. Also measures against possible environmental destruction, such as arbitrary disposal of waste water and garbage, noise and air pollution, should be worked out in advance.
- 2) A museum or a conservation center is needed for the storage and exhibition of carved stones, relics and many other discoveries of Borobudur, as well as numerous literature concerning Borobudur, that are accumulated in this candi.

- 3) The monument itself is at present supervised by 100 guards. Nevertheless, there are many problems pertaining to conservation and maintenance, including the overcrowding of the galleries, partial breakage of stone structures and littered trash. Therefore, it is necessary either to demand higher moral to visitors or to limit the admission to the temple and guide overflowing visitors to nearby park facilities.

## Typological Explanation

Borobudur is unique and significant in its structural beauty, abundance of carvings and high historical value. Borobudur is also peculiar as a stupa placed on a terraced pyramid, but has a quite similar appearance with stupas in Pagan, Burma, although those stupas existing today were all built in and after the 10th century. As a stupa having niche temples, Borobudur follows the precedents in the stupa of Saranath, India, built around the 6th century.

Borobudur also shows strong influence of India in designs and standards. The standard measurement used here, both vertically and horizontally, is a module based on one hasta, or cubit (about 50 cm), or 25 angulas (Prajapatya). The plan of Borobudur, which looks complicated at first glance, consists of 14 Bhadra Mandalas (Manasara) that divide each side of 93 meters square. The square terraces and round terraces lay precisely on the grid. The two-tier round terraces below are not in precise circles, but in incomplete super ellipsoids.



# Candi Loro Jonggrang Complex

Loro Jonggrang, a Hindu temple (Shivaite), is one of the two greatest Indonesian candis along with Borobudur. Here, the architectural composition of the candi is given in the form of archeological inventory. Problems involved in preservation and proposed solutions are discussed in detail on pages under the title of Loro Jonggrang. Further study.

Code Number: PR-38.  
 Designation: Candi Loro Jonggrang Complex.  
 Location: Kecamatan Temon, Yogyakarta Special Region and Kecamatan Tloga, Central Java.  
 Typology: State Hindu temple complex.  
 Age of construction: Ca. 850 A.D.  
 Builder: Probably by one of the Mataram Kings, King Pikatan.

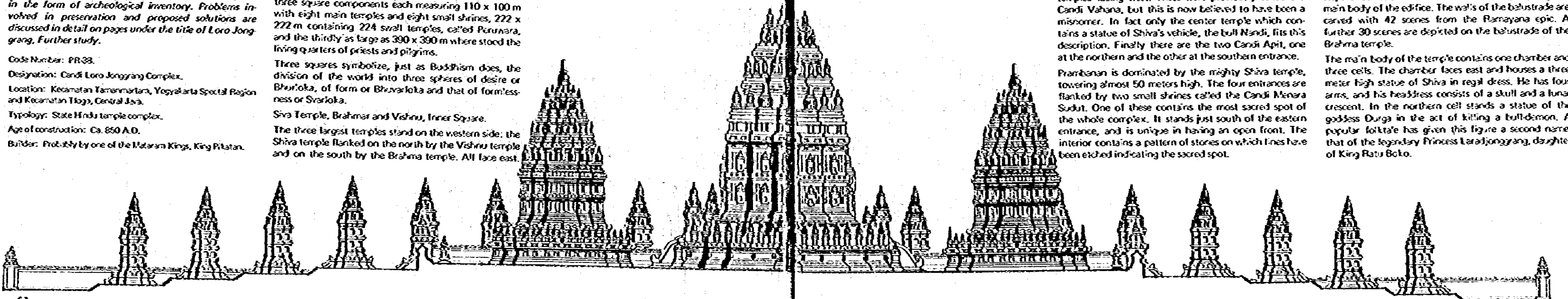
## Structure of Complex

The complex was originally divided by the walls, into three square components each measuring 110 x 100 m with eight main temples and eight small shrines, 222 x 222 m containing 224 small temples, called Perumara, and the thirdly as large as 390 x 390 m where stood the living quarters of priests and pilgrims.

Three squares symbolize, just as Buddhism does, the division of the world into three spheres of desire or Bhurloka, of form or Bhuwaloka and that of formlessness or Svarloka.

Shiva Temple, Brahma and Vishnu, Inner Square.

The three largest temples stand on the western side: the Shiva temple flanked on the north by the Vishnu temple and on the south by the Brahma temple. All face east.



On the opposite side of the square stand three smaller temples facing west. These were previously called the Candi Mahana, but this is now believed to have been a misnomer. In fact only the center temple which contains a statue of Shiva's vehicle, the bull Nandi, fits this description. Finally there are the two Candi Apit, one at the northern and the other at the southern entrance.

Prambanan is dominated by the mighty Shiva temple, towering almost 50 meters high. The four entrances are flanked by two small shrines called the Candi Menara Sudut. One of these contains the most sacred spot of the whole complex. It stands just south of the eastern entrance, and is unique in having an open front. The interior contains a pattern of stones on which lines have been etched indicating the sacred spot.

The main entrance is from the east. At the top of the steps a balustrade runs off to each side, framing the main body of the edifice. The walls of the balustrade are carved with 42 scenes from the Ramayana epic. A further 30 scenes are depicted on the balustrade of the Brahma temple.

The main body of the temple contains one chamber and three cells. The chamber faces east and houses a three meter high statue of Shiva in regal dress. He has four arms, and his headdress consists of a skull and a lunar crescent. In the northern cell stands a statue of the goddess Durga in the act of killing a bull-demon. A popular folk tale has given this figure a second name, that of the legendary Princess Loro Jonggrang, daughter of King Ratu Boko.

# Candis in Kedu Basin and Kewu Plain

## Candis in Kedu Basin

### Candi Mendut

**Location:**  
Approximately 3 km to the east of Borobudur, Kelurahan Mundut, Kecamatan Mungkit and Kabupaten Magelang.

**Typology:**  
Buddhist temple. Inside the chamber is a 3 m high Buddha statue, flanked on both sides by two Bodhisattvas.

**History:**  
A short inscription, in Kawi script, is found on the vestibule wall. Karantengah inscription dated in 824 A.D. is assumed to be related to this temple. From these records, Mundut is believed to be built by Sailendra's King Indra sometime between the late eighth century and the early ninth century. Therefore, it seems fair to assume that Mundut was built slightly earlier than Borobudur. At the time, the architectural composition and the art of creating Buddha's image must have already reached the peak, along with the increasing religious pursuit after the religious world of Buddha in the west - culminating in the construction of Borobudur, which is a universe of its own.

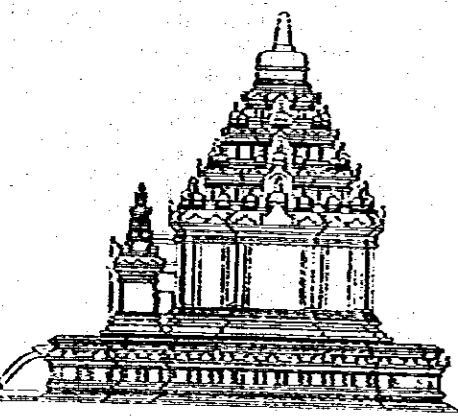
**Discovery and Restoration:**  
Mudut was discovered by C.L. Hartmann from half underground in 1834 and was partially restored in 1879. In 1908, about 90 percent of the temple was restored by Van Erp, with the exception of the rooftop, as can be seen today.

**Architectural composition:**  
The above-noted main candi is the only remaining building today. It consists of a temple body, 13 m square, standing on the foundation of 28 m by 24 m, and three-layer roofs decorated with stupas and niche temples. The building stands 26.5 m from the ground.

The preliminary survey revealed that the original temple yard had encompassed up to 260 m square (6.8 ha), and presumably contained brick walls, stupas, vihara and other structures. Stone foundations have been found around the main candi, 20 meters apart from the building, and little fragments of another stone structure has been located at the adjoining areas in the north.

**Preservation:**  
At present, approximately 1 ha of the temple premises is nationalized and is enclosed by wire fence. The site is well preserved owing to a resident superintendent who looks after tourists. Although the number is small, carved stones and ancient bricks (measuring 20 x 40 x 5 cm) that are found scattered in the yard need to be sorted and recorded. After conducting a full excavation survey, the entire temple yard, including the nearby residential areas, will have to be improved and developed.

**Sanctuarization:**  
A sanctuarization of the total 2.7 ha of new temple yard is planned for the period of 1984 and 1985.



Side Elevation of Candi Mendut

### Candi Pawon

**Location:**  
About 1.7 km to the east of Borobudur, Kelurahan Wanurejo, Kecamatan Borobudur, Kabupaten Magelang.

**Typology:**  
Single Buddhist temple.

**History:**  
According to J.G. de Casparis, Pawon is the temple where the cremated remains of Sailendra's King Indra are kept. (Karantengah inscription, 824 A.D.)

**Restoration:**  
The temple was restored to the original form in 1903 by J.F.G. Brandes.

**Architectural composition:**  
A temple body of 5.7 m square lies on the foundation of 9 m by 7 m, standing 11.6 m from the ground. It is also reported that the remains of surrounding walls have been traced. (D. Chihara)

**Preservation:**  
The present temple site, which is nationalized, covers an area of 0.1 ha and is fenced by local residents for preservation. Nevertheless, the original temple yard surrounded by the groves requires survey and conservation.

**Sanctuarization:**  
A new temple yard of 1.0 ha is to be nationalized and sanctuarized during the period from 1982 to 1983.

### Candi Ngawen

**Location:**  
4.8 km to the east of Mudut and to the south of Muntilarang.

**Typology:**  
Buddhist temple complex.

**History:**  
This candi has also been identified by D. Chihara to be the temple for aforementioned King Indra's ashes (Karantengah inscription, 824 A.D.).

**Architectural composition and restoration:**  
This is a complex of five temples arranged in a row, all facing west, stretching for 60 m from north to south. The second temple from the north is fairly large, with the 12 m-square foundation supporting a square temple body, each side with a projection. An independent gate tower decorates the front. This temple was restored to the original form in 1927.

**Sanctuarization:**  
The present 0.2 ha nationalized land will be expanded to 1.0 ha and will be sanctuarized during 1986 and 1987.

### Candi Gunung Ukir

**Location:**  
10 kilometers to the east of Borobudur, on the summit of Mt. Ukir, 500 meters from the sea level.

**Typology and architectural composition:**  
The candi is the Hindu temple complex comprised of four buildings standing in the temple yard of 50 m square.

**History:**  
The Canggal inscription dated in 732 A.D. states that King Sanjaya built Siva Lingga Sanctuary on the Gunung Ukir.

**Preservation:**  
The foundations of the four structures and a part of temple bodies remain today. Although there are some distances from the groves below the hill, the protection is insufficient and sanctuarization is necessary.

## Candis in Kewu Plain

### Candi Sewu Complex

**Location:**  
Kelurahan Tlogo, Kecamatan Prambanan, Kabupaten Klaten

**Architectural composition:**  
This is the largest Buddhist monument in the Prambanan area, with rectangular grounds that measure 185m north-south and 165m east-west. Along the north-south and east-west area at a distance of about 200m are located the vanguard candis of Asu (east), Kulon (west), Bugrah (south), and Lor (north) a gateways to Candi Sewu at which the gods protecting it were worshipped. "Sewu" means "thousand". There is a total of 253 buildings in the complex arranged in a Mandala pattern around the central main hall as an expression of the view of the universe of Mahayana Buddhism and symbolizing the three worlds of Arupa-dhatu, Rupa-dhatu, and Kama-dhatu.

**History:**  
Inscriptions discovered at the candi itself and nearby Klurak village indicate that the Buddhist Candi Sewu, then known as Manjushri-gha, was built in 782 A.D. as a donation by a minister and extended ten years later.

Excavations in 1973 have further substantiated the theory that the compound was originally square, with an outer wall some 30m further out.

**Restoration:**  
Two minor temples, Perwara were restored in 1928.

**Preservation:**  
About three hectares of the temple yard is protected by the guard fence. But the surrounding areas that are presumably a part of the original temple yard have been converted into farm lands and housing plots. Here, the remains of the candi is poorly conserved, and requires a full archeological survey.

**Sanctuarization:**  
Accordingly, a total 6ha of a new temple yard of Sewu Complex are to be sanctuarized as a key part in the north of the Prambanan Archeological Park.

### Candi Plaosan Complex

**Location:**  
Kelurahan Bugisan, Kecamatan Prambanan, Kabupaten Klaten.

**Typology:**  
Buddhist temple complex, seemingly used as priest's living quarters.

**Architectural composition:**  
There were once 176 temples and shrines on the site of the northern complex of 150 m by 100 m, and 86 temples and stupas on the southern complex of 80 m by 90 m.

There are two two-story main buildings in the northern complex and a one-story main building in the southern complex.

**History:**  
A large number of short inscriptions found in this candi include names of King Pikatan and Queen Pramodawardani, indicating that the complex was built sometime in the mid-ninth century.

**Restoration:**  
A candi perwara and a small stupa was restored in 1941, inner enclosure walls and gates in 1945, and the main temple of the northern complex in 1960.

**Preservation:**  
The main part of the northern complex and about 2 ha of temple yard are fairly well preserved. However, the preservation of surrounding areas and the southern complex is insufficient.

**Sanctuarization:**  
Although this complex is located a kilometer away from the park in the northeastern corner of Prambanan area, sanctuarization of the 9.6 ha temple yard is planned for 1985 because of its high historical value.

### Ratu Boko Palace

**Location:**  
Kelurahan Bokoharjo, Kecamatan Prambanan Sleman, Kabupaten Sleman, Y.S.R.

**Architectural composition:**  
The original layout and design is not fully known. Within the 19.6 ha of land on top of the hill, there remain the stone basements of Pendopo hall (on which stood a wooden building) and other palace buildings, a structure that was presumably a water tank or a bathing place, man-made flat terraces and ruins of stone walls. The layout of the gate and some of the buildings are shown in the chart.

**History:**  
In the Prambanan area a large number of inscriptions dating from the second half of the eighth century to the middle of the ninth century have been found on Ratu Boko Hill and at the Kalasan, Loro Jonggrang, Sewu, Plaosan, and other candi.

In particular, the sanskrit inscription dated in 856 A.D. is important.

From them it can be surmised that the Buddhist Sailendra Dynasty and the Hindu Mataram often cooperated with one another but that in the middle of the ninth century the latter defeated the former. The Sailendra stronghold at that time was Ratu Boko Hill, and three kinds of "linga" were erected to commemorate the Mataram victory. Prior to that, "Candi Siwa," probably meaning Candi Loro Jonggrang, was built. Much is still unknown, but more and more of the history of those times will no doubt come to light in time with the discovery of more such inscriptions if they are carefully preserved.

**Preservation:**  
Owing to its hilltop location, the palace is fairly well preserved at the moment. However, full conservation plans should be made in view of the ongoing gradual housing development by farmers. The fringes of the hill, which are important as a mid-range factor of the Prambanan scenery, require conservation and improvement in its topological features and vegetation.

**Sanctuarization:**  
In addition to the presently nationalized area of 1.8 ha, nationalization of another 5.8 ha of land and landscaping at a limited scale is planned.

### Candi Kalasan

**Location:**  
In the west of Prambanan, Kelurahan Tirtomartani, Kecamatan Kalasan, Kabupaten Sleman, Y.S.R.

**Typology:**  
Buddhist temple.

**History and Architectural composition:**  
The candi was originally built in 778 A.D. by Mataram's King Panangkaran, and seems to have been expanded twice. Since vihara, bell house and other structures were presumably on the original temple yard, these buildings and the main temple are assumed to have constituted a complex together with Candi Sari and others located 700 m to the north of candi Kalasan.

The main temple faces east and consists of 31.6 m high temple body on the foundation of 34.4 m square. The proportional composition and details are excellent. Around the main temple are 52 small stupas arranged in a square. A life-size copper statue of Buddha, now lost, was enshrined in the building.

**Preservation and sanctuarization:**  
About 70 percent of the main temple has been restored to the original form. Because of its high historical and aesthetic value, and because the national highway located only 60 m away is to be widened further, additional restoration and the strengthening of the building is necessary. For the moment, a restoration work starting in 1982 is being proposed. Furthermore, nationalization and sanctuarization of a total 1.5 ha of the temple site is planned.

### Candi Sari

**Location:**  
700 m to the north of Kalasan, Kelurahan Tirtomartani, Kecamatan Kalasan.

**Typology:**  
Two-story Buddhist vihara in the same style as the main temple of Candi Plaosan.

**History:**  
Candi Sari is assumed to have been built in the ninth century, when Candi Kalasan was completed to the present form, because of the similarities in the architectural technique.

**Architectural composition:**  
Sari consists of a single two-story building, with three chambers arranged from north to south and facing east. The temple body measures 17.3 m by 10 m at the bottom.

**Restoration and sanctuarization:**  
Sari is well restored except for the outside of the foundation. However, as the outer walls are tilting outward and engravings on the outside are beginning to deteriorate, fortification and restoration work is needed. For the present, restoration work beginning in 1985 is being planned. Also, a plan to nationalize and sanctuarize 1 ha of the new temple yard has been made.

### Candi Sojwan

**Location:**  
Located to the south of Prambanan and to the north of Ratu Boko, Kelurahan Kebondalem Kidul, Kecamatan Prambanan, Kabupaten Klaten.

**Typology:**  
Buddhist temple.

**History:**  
The builder of the candi is unknown. However, the existence of a gold bar with a presumed inscription of King "Rakai Kayuwani" suggest that the temple was built in the latter half of the ninth century. The candi enshrined an Amitabha statue and two Bodhisattvas, but their present location is unknown.

**Architectural composition:**  
The candi constituted a complex together with Candi Kalangan (now lost) located 80 m to the north. The main temple of Sojwan consists of a 18.8 m-square foundation supporting a square temple body with a vestibule on the east side. The vertical composition is unclear because its upper part has been destroyed, but a similarity with that of Candi Mundut can be detected.

**Preservation and sanctuarization:**  
The temple yard and the surrounding areas are groves and farm fields. It is necessary to undertake an archeological survey and improve the state of preservation. A new temple yard of 1 ha is planned to be nationalized and sanctuarized.

### Candi Banjuniwo

**Location:**  
Located on the south of Ratu Boko Hill, Kelurahan Bokoharjo, Kecamatan Prambanan Sleman, Kabupaten Sleman, Y.S.R.

**Typology:**  
Confirmed to be a Buddhist temple of the ninth century from the architectural style.

**Architectural composition:**  
The foundation of the main temple is 15.4 m square, on which stands a temple body that faces west, 14.5 m high from the ground. Unlike most other candi, the roof is of tetrastyle with a single stupa on the top.

**Restoration:**  
The restoration work is nearly completed.

**Sanctuarization:**  
1 ha of the new temple yard is planned for nationalization and sanctuarization.

### Candi Sambisari

**Location:**  
Located at some distance to the west of Prambanan, Kelurahan Purwomartani, Kecamatan Kalasan, Kabupaten Sleman.

**Typology:**  
Hindu temple complex.

**History:**  
The main temple and the yard was unearthed from 5.5 meters under the ground surface in 1966. The temple is presumed to be of ninth century from the characteristics of the architectural technique. The 5.5 meters of earth consists of three strata, each comprised of volcanic ash with about 10 centimeters of river gravel layer. This suggests that the area was hit by an earthquake and three volcano eruptions each followed by floods, before the buildings were completely buried underground.

**Architectural composition:**  
The original temple yard is yet unknown. The main temple stands on the foundation of about 10 m square, surrounded by galleries and facing west.

**Restoration and sanctuarization:**  
The restoration work of the above-noted main temple is underway, of which approximately 70 percent is completed. An additional work for the drainage of the ground and for controlling the erosion of the earth walls is necessary, which is taken into account in the sanctuarization plan. The new temple yard to be nationalized covers 0.5 ha.

## Other Candis in Mid-Java

### Candis in Dieng Plateau

Dieng, a volcanic plateau some 2,000m above sea level, is the site of a number of 8th century Shivaite Hindu temple groups.

All the standing temples have been named after the Pandava heroes of the Hindu Mahabharata epic. Scholars generally assume that these names were given to the temples by the local people several centuries after they had been erected. The temples are smaller and simpler in ornamentation than those in southern Central Java. Eight temples, perhaps a third of the original number, have been partially restored. Of special note are the Bima temple in the south and the group in the center: Semar, Arjuna, Srikanthi, Pundadewa and Sembadra. The group on the western side of the plateau has also been partially restored.

### Candi Gedong Songo

Gedong Songo is a Hindu temple complex consisting of nine groups of temple buildings, and is located on the southeastern slope of Mt. Ungarang (2,050 m from the sea level), 70 km to the north of Jogjakarta. The similarities of these temples with those in aforementioned Dieng Plateau in architectural style suggest that Gedong Songo was constructed in the latter half of the eighth century. The candi was discovered in the mid-18th century and was partially restored in 1931.

Most of the buildings are small temples, each about 4 m square with a vestibule in the front. The buildings have similar, but more refined, details of temples in Dieng, which lead to the style of temples of Kedu and Kewu of later years in the south.

### Candi Suku

On the western slope of Mt. Lawu (3,267 m from the sea level), which divides the Central Java and the Eastern Java, one finds Candi Suku complex at 900 m from the sea level and Candi Cetah at 1,500 m. The temples were built in the former half of the 15th century, and, unlike other monuments in Indonesia, show features of megalithic culture.

The main temple, located in the easternmost of the three-tier temple site that covers the area of 100 m by 50 m and faces south, is a pyramid of 16 m square and 10 m in height, structured in tiers. Due to its isolated location, the candi is well preserved.

# Whole Candi Catalog: Kedu Basin

Code no.	Name and locality	Findings	Remarks	Code no.	Name and locality	Findings	Remarks
ER 01	Pland, Tegol	Bricks and a yoni	Partly still buried at the spot.	ER 17	Suklon	An andesite stone beam, a stone mortar, a stone fragment of candi top shape	
ER 02	Dayangan	Two pedestals	One complete and another broken.	ER 18	Kedungremit	4 stone sockets (watu kening)	Van Aalst (1899), Knebel (1911) and Krom (1914) reported but no longer there
ER 03	Rambanek	Inscribed linga in Old Javanese	Kept at the Restoration Project Office of Candi Borobudur	ER 19	Bedilan	Fragments of copper bars, foreign and local ceramic shards, a jar in good condition, a stone mortar, fragments of the back of a Nandi statue, ancient brick fragments	
		A small linga		ER 20	Bowringan	Remnant of a brick candi, 3 yoni and 2 images (Apsara and an unknown goddess), a copper tray and a jar, many scattered ancient bricks, a number of foreign and local sherds, remnant of a settlement at the south west of the candi remnant	2 images are kept at the Restoration Project Office of Candi Borobudur. Tray and jar are at the Archaeological Site Office at Prambanan.
		3 yonis	Two in good condition and another's neck broken.	ER 21	Krangnan	A fragment of the lower part of a sitting image of andesite stone, a stone mortar, 2 Nandi statues	Knebel (1911) and Krom (1914) reported but no longer exist.
		2 fragmented candi relief and 1 arca, 3 stone mortars (watu kening), 32 candi outer stones		ER 22	Kirangan	A stone mortar, fragments of a jar	
		2 stone images, Durgamatsura-mar-Sri and Saraswati, a wear spot ornamented with royal pattern, an arca, a stone wall, length 2.2 m, and bricks, 2 stone images	J. Knebel (1911) and N. J. Krom (1914) reported.	ER 23	Candi	A great number of fragmented bricks, a top of broken bricks of 1 m height and 2 m diameter	Inhabitants report there were a headless image on the heap and a jar not far from it.
ER 04	Kendal	Stone wall, length 2.2 m, and bricks, 2 stone images	Verbeek reported (ROO) 1914, 1918.	ER 24	Samboran	A foundation of a brick edifice, a small linga and 3 images	Van Aalst (1899) and Krom (1914) reported.
		Higher land called 'sawah candi'	Many ancient bricks	ER 25	Jela	2 heaps of fragmented ancient brick, one of them 40 m length and 2.5 m height and the distance between them 100 m	
ER 05	Hijazog	Many candi stones and a broken Ganesa stupa	A great number of candi stones are used for the neighboring houses.	ER 26	Gayu	A pedestal of an image	Knebel (1911) and Krom (1914) reported but no longer exist.
		A number of candi stones and remains of the candi foundation, 4 stone sockets with padmasana decoration, an image of an unknown god, 2 reliefs	Verbeek (1894), Hoopmanns (1913) and Krom (1914) reported.	ER 27	Jela	2 images near the heaps of bricks	Inhabitants report there were presumed parts of a candi that inhabitants report they brought from Gayu, south of Jela
ER 06	Narban	A candi stone (?) in the shape of a out off core		ER 28	Gayu	A great number of fragmented ancient stones at a field called 'Tegal Candi'	Many candi stones and ancient bricks, found there, are used for neighboring houses.
ER 07	Mendut	A head of Nandi, 4 pedestals	Van Aalst (1899) reported	ER 29	Peran	A yoni	A yoni, an inhabitant reports found with the above-mentioned bricks, is kept at his house
ER 08	Bojog	Many candi stones and ancient bricks	In the neighboring houses.	ER 30	Bongorangan	Pieces of ancient bricks and a stone socket and a yoni	
ER 09	Pigutan	Remains of a brick candi and 5 images	Friedrich (1890), Verbeek (1894) and Krom (1914) reported.	ER 31	Melton	A number of candi stones, a head of Buddha statue	The statues are kept at the Restoration Project Office of Candi Borobudur.
ER 10	Bongorangan	14 bricks	Now used by the inhabitants for a staircase.	ER 32	Borobudur	Candi Borobudur	Most important Buddhist stupa (wide detailed explanation as to new archeological findings)
ER 11	Bongol	A Nandi statue with a broken head, a yonic stupa, a Ganesa with a broken head, an arca, and 9 stone stones		ER 33	Paxon	Candi	Buddhist
ER 12	Gedangan	A yoni yard where the ruins of the foundation of a brick edifice, a linga and linga were found	Van Aalst (1899) reported.	ER 34	Ngezen	Candi Complex	Buddhist
ER 13	Dijan	A terracotta Mahabala statue (without a back and a pedestal), A terracotta arca	Kept at Kantor Sista Purboksa (Archaeological Site Office) at Prambanan. Kept at the Restoration Project Office of Candi Borobudur.	ER 35	Gungulita	Candi Complex	Hindu
ER 14	Seganan	A stone mortar (Kumpang or Kumpang) partly buried in the ground	Found at the edge of the land called 'Tegal Kumpang'				
ER 15	Juwatan	12 copper articles, 5 bowls, 2 pots, 3 wares, 1 spoon with a long handle and a bracelet	Inhabitants found on a dry field in 1975. Pot are kept at the Restoration Project Office of Candi Borobudur and at the Archaeological Site Office at Prambanan.				
ER 16	Pambutan	Stone Buddha (Vajrapani) statue	Krom (1914) reported, and now kept at the Archaeological Site Office at Prambanan.				



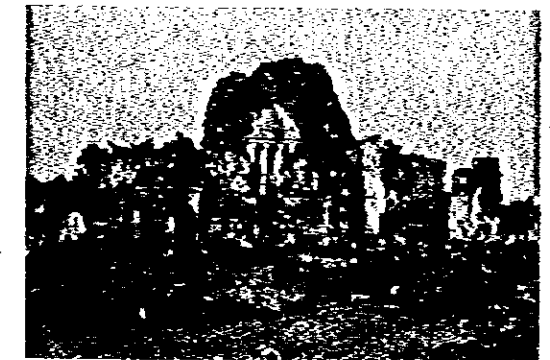
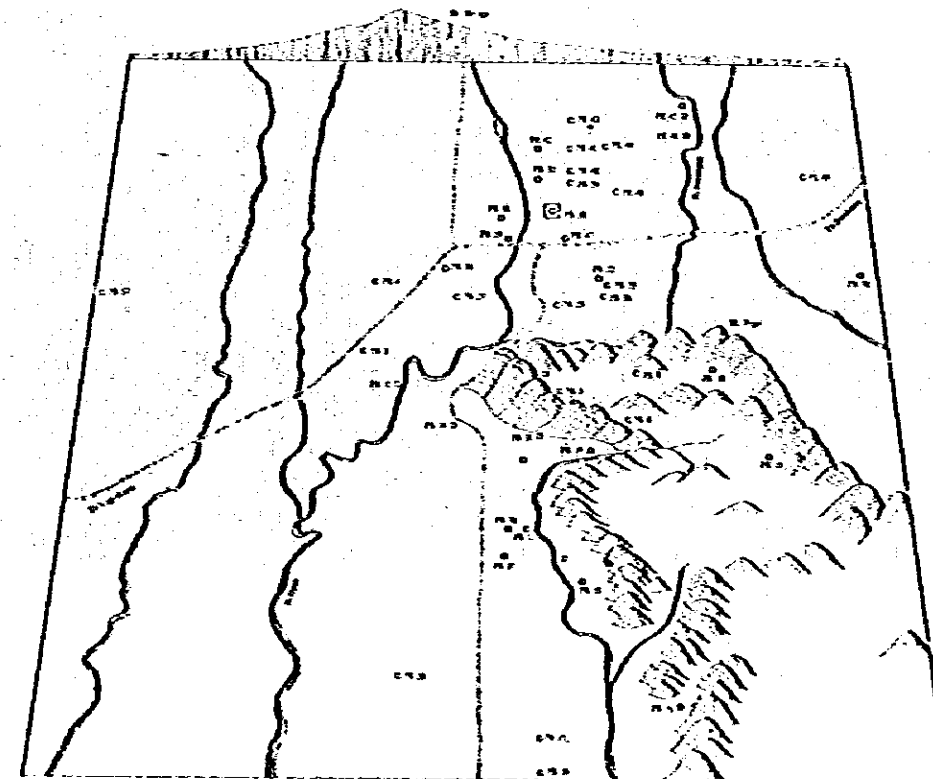
Candi Mendut



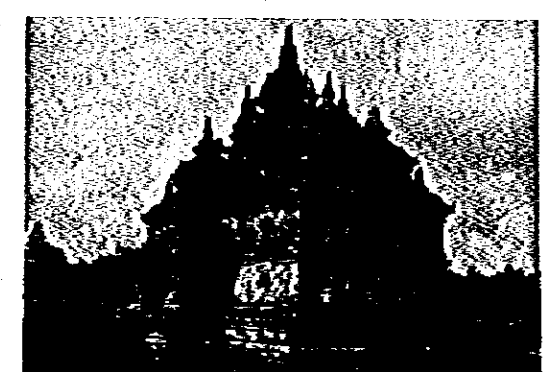
Candi Gunung Ukir

# Whole Candi Catalog: Kewu Plain

Code no.	Name and locality	Findings	Remarks	Code no.	Name and locality	Findings	Remarks
ER 01	Patarata	A malaka		FR 29	Bojom	Statues: a Padmasari, a large Raksasa, an Amalaka, an Aksobhya, a Bodhisattva and a Buddhist goddess	Kept at the spot.
ER 02	Cupunata	A Nandi statue, 2 candi stones (a linga and a top)		FR 30	Kepatihan	Remnant of a foundation of a square edifice	Now buried under the Yogyakarta main road.
ER 03	Kelasan	An inscribed stone dated on 778 AD in the nagari and Sri		FR 31	Bugisan	6 statues and a Bodhisattva and a Buddhist goddess	
ER 04	Sari	A foundation of a monastery and a copper bell close to the candi		FR 32	Kelarak	An inscription in the nagari script of King Indu (Sri Sangramadhamanijaya) dated in 782 AD.	
ER 05	Ratu Boko Complex	Two story Candi		FR 33	Nyagik	Ruins of a candi	No longer exist.
		Basements and the area of a palace (Keraton) and a bathing place		FR 34	Witugirik	Remnant of a candi, stone beams and pillars of a candi or periboga	
		3 inscribed lingas, two were dated in 895 AD.	One is kept at the Jakarta Museum and two are at the Archaeological Site Office at Prambanan.	FR 35	Pejo	Remnant of a candi named Candi Keltak an inscribed linga	Kept at Jakarta Museum Pusat (D. 130).
		Remnant of stone fortifications.		FR 36	Bubrah	Ruins of a candi, a Siva and 2 Ganesa statues	Kept at Yogyakarta Sono Budoyo Museum.
ER 06	Sari		A candi does not exist any more, reported identified in the aerial photos of 1978	FR 37	Singa	4 lion images put upon the corners of candi, a Nandi statue, a Mekara, an arca, Candi Loro Jonggring Complex.	Candi is no longer there.
ER 07	Sira plateau	Statues of Siva Guru, Ganesa, Buddhist and Bodhisattva		FR 38	Prambanan	Candi Loro Jonggring Complex.	Hindu temple. (Wide detailed explanation as to other findings)
ER 08	Tirjon	Ruins of a candi		FR 39	Lumbung	Candi Complex	Buddhist
ER 09	Sunbernata	A large unfinished Ganesa		FR 40	Bubrah	Candi	Buddhist
ER 10	Miring	A foundation of a candi	It is no longer exist.	FR 41	Sewa	Candi Complex	(Wide detailed explanation as to the new findings in 1978)
ER 11	Ijo	A candi complex of one main candi and 10 periboga		FR 42	Kufon	Candi	No longer there.
		A Ganesa Stupa, a four armed image, a Siva statue, a linga and an inscribed stone		FR 43	Lor	Candi	Candi is no longer there.
ER 12	Sonan Tarungirata	Ruins of a candi, 10 Buddhist statue, 8 of them Dhyanibudha and some of them headless		FR 44	Asu	A Dhyanibudha statue	
ER 13	Semarangin	Remnant of a stone candi, 3 images	The images were taken to Sragedik, but neither the candi nor images exist.	FR 45	Ploasan Lor Complex	Candi Complex	Buddhist
ER 14	Banjurbo	Candi	Under restoration.	FR 46	Ploasan Kidul Complex	Candi Complex	Buddhist
ER 15	Pobangan	Ruins of a candi	No longer exist.	FR 47	Karang	Many reliefs	
ER 16	Sawo	Ruins of a candi	No longer exist.	FR 48	Telogo Lor	A pedestal of a statue ornamented with a garuda	Found in the former bathing pond, and is kept at the Archaeological Site Office at Prambanan.
ER 17	Pobangan	Ruins of a candi	No longer exist.	FR 49	Baji	12 stone beams, 1 Nandi statue, other Hinduistic remains	Found at a higher land.
ER 18	Krayak	Remnant of a candi, a Durga and a Nandi statue		FR 50	Gugala	Candi stones, 3 large Raksasa statues	Kept at Solo.
ER 19	Aberg	Ruins of a brick candi, 3 hollow stones		FR 51	Taji	Inscriptions dated in Sanjaya year 694.	Kept at Jakarta Museum Pusat.
ER 20	Nagesari	A stone lintel with relief of Dewi Sri and garuda, a pedestal	Candi is no longer there.	FR 52	Kerput	A water drainage of white stones	Found from underground of the present grave yard of Taji Village.
ER 21	Grimbyangan	Ruins of candi, a statue	No longer exist.	FR 53	Sentil	An unfinished Durga image	
ER 22	Kebondalem	A inscribed stone relief byang mahabhar	Kept at Jakarta Museum Pusat.	FR 54	Pening	An inscribed stone dated in Saka year 781	Kept at Jakarta Museum Pusat.
ER 23	Kerling	6 inscribed copper bars	Kept at Jakarta Museum Pusat.	FR 55	Kalongan	Candi Sajwan II in Kebondalem Village	Buddhist
ER 24	Kewason	2 silver images	Kept at Jakarta Museum Pusat.	FR 56	Sajwan (II)	Candi Sajwan II in Kebondalem Village	Buddhist
ER 25	Gatak	A fragment of an inscription dated in Sanjaya year 693	(The year is not confirmed) Kept at Jakarta Museum Pusat.				
ER 26	Gempol	3 statues: 1 Kusera, 2 Amalaka					
ER 27	Panduguning	A Siva statue on a grave yard called 'Gunung Wiji'					
		An ancient well	Assumed fortress of Trunjoyo war period	FR 57	Sambisari	Candi	Hindu temple excavated from 5 m. underground in 1966.
ER 28	Dinongan	Ruins of a candi	Krom (ROO 1914) reported, but the location is unidentified.				



Candi Sewu



Candi Ploasan Lor