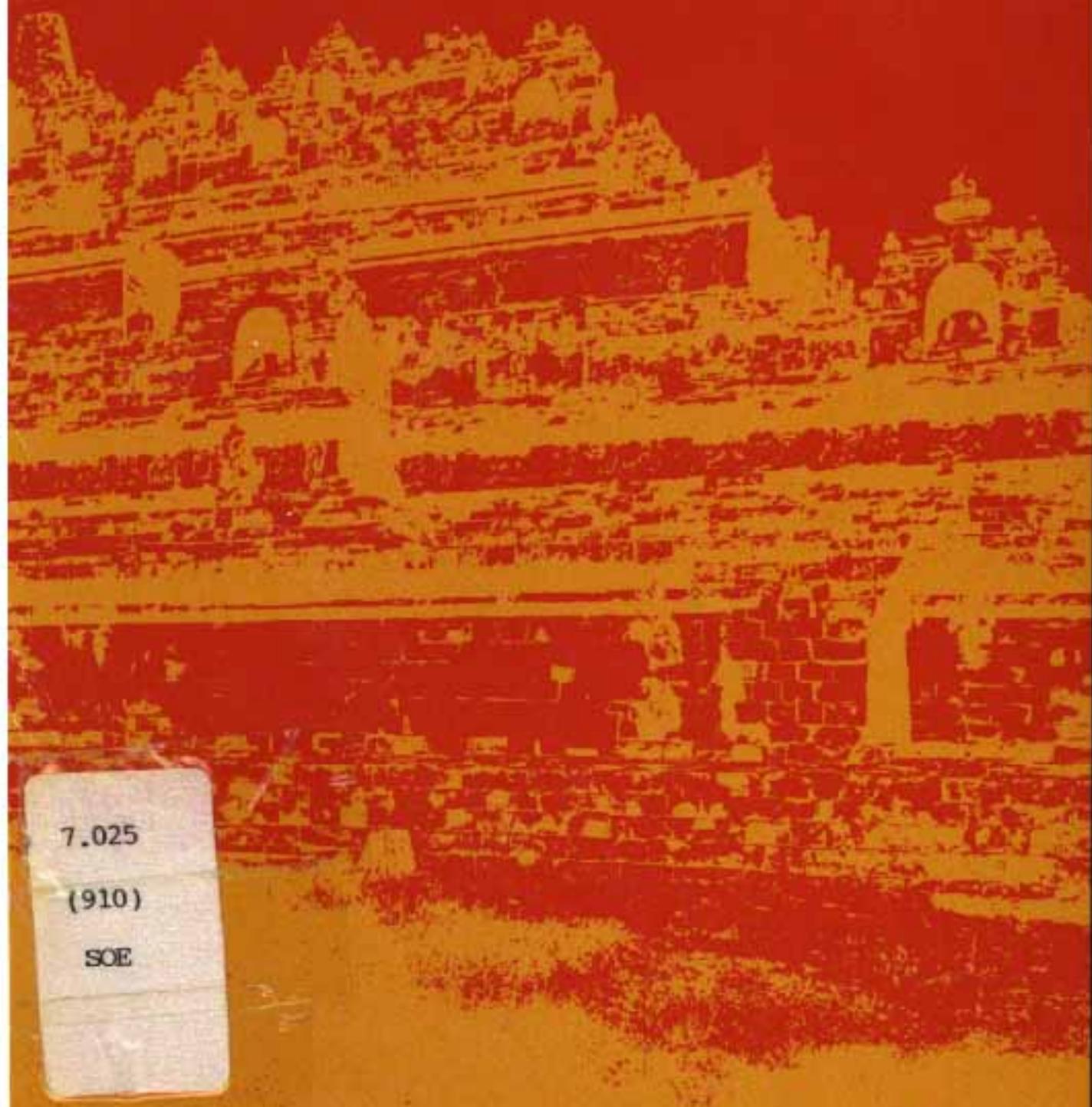


chandi borobudur

dr Soekmono



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Chandi Borobudur

A Monument of Mankind

by Dr. Soekmono

1976

Van Gorcum, Assen/Amsterdam The Unesco Press, Paris

English edition first published 1976 by
The Unesco Press
7 Place de Fontenoy, 75700 Paris
and
Van Gorcum
Assen/Amsterdam, The Netherlands

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ISBN 90-232-1356-4 (Van Gorcum)
ISBN 92-3-101292-4 (The Unesco Press)

Printed in The Netherlands by Van Gorcum, Assen

Preface

This is a scholarly and up-to-date book on Borobudur, the magnificent and little known temple situated in the centre of Java, close to the Merapi and Merbabu volcanoes some forty kilometres from Yogyakarta.

It is particularly fitting that the author should be Dr. Soekmono, as no one better than he knows the temple to which a large part of his life as an archeologist has been devoted. And Unesco, having done so much to mobilize international assistance to save this masterpiece of our common cultural heritage is now publishing the book.

Dr. Soekmono traces the temple's history and lovingly describes it as one who has become its vigilant guardian and the painstaking artisan of its restoration. Might one who is trying to enlist the world's goodwill for its safeguard be allowed to say very simply what he felt when for the first time he had the good fortune to visit the most beautiful Buddhist sanctuary of this large, now Muslim, Indonesian island?

Borobudur - the mountain of the virtues - is first a landscape, the landscape which, over a thousand years ago, met the eyes of those who came on pilgrimage here to seek the inner peace to which all believers in the Buddha aspire.

It has hardly changed. In the distance, two volcanoes; one evermenacing, glows red in the night. All around, in the middle distance, a ring of mountains of dark stone, with crests of strange, sometimes almost human, shape. Built of this same volcanic stone, Borobudur emerges from a delicate green background of tropical vegetation.

The external monument has often been described: 'four square terraces surmounted by three circular terraces bearing seventy-two stupas and as many statues of Buddha, all dominated by a great central stupa. Dr. Soekmono describes it with the emotion of an Indonesian and the science of an archeologist.

Today the tourist takes a car from his Yogyakarta hotel, like any other hotel were it not for the scent of cloves of Indonesian cigarettes and the soft music of the Javanese gamelan. He goes first through Yogyakarta itself, crowded with industrious and smiling people on bicycles, then travels beside rice-fields, and across a river that has a bed of black lava.

In the semi-darkness of a first small temple, before a most moving statue

of the Buddha, the tourist turns pilgrim in anticipation of his first sight of the sanctuary, looming suddenly ahead round a bend in an unmade road.

But its external appearance is not the most remarkable thing about Borobudur, which takes into its confidence the visitor who is willing to mount gradually, to walk round each of its terraces inhaling, one after the other, the beauty of its bas-reliefs - the most expressive recounting the life of the Buddha - and the natural beauty which is here strangely mingled with the handiwork of man.

Climbing by degrees to the top, today's pilgrim, like his predecessors, becomes progressively imbued with calm and beauty and an unaccustomed inner serenity; and so the centuries perpetuate that which was intended by those who, in the ninth century, built this gigantic temple.

Dr. Soekmono's book, the work of a scholar and archaeologist, will appeal to anyone who, wherever he be, is tempted by this experience and wishes to prepare adequately for it.

Gerard Bolla

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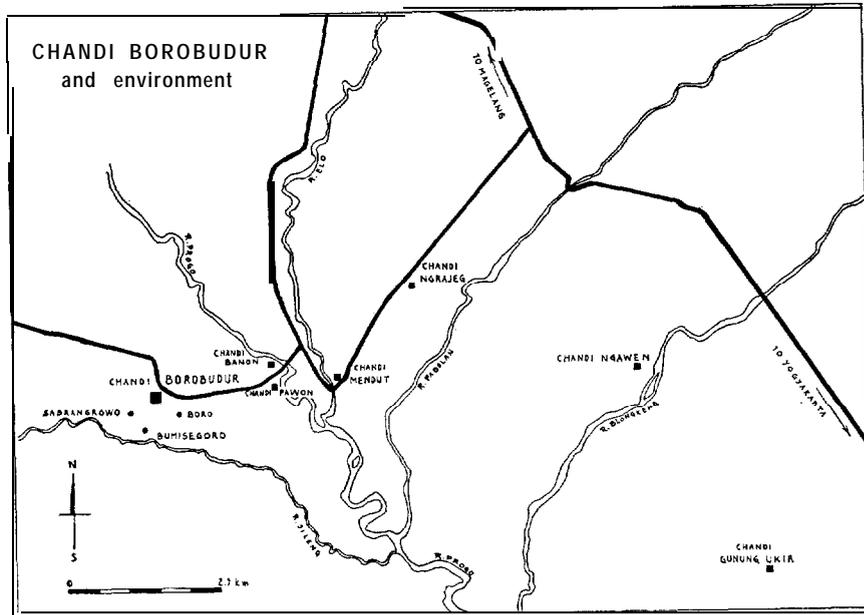
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1. Map of Chandi Borobudur and environment.

Introduction

1. Location and environment

In the most remote past the island of Java was floating in the ocean, and had to be nailed to the centre 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 fifteen kilometres south of Tidar hill is Chandi Borobudur situated.

The region around the 'Nail of Java', better known as the 'Kedu Plain', forms the geographical centre 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 (2911 m) and the Merbabu (3142 m) at the north-east, and the Sumbing (3371 m) and the Sindoro (3135 m) 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.

The western and the southern sides of the plain 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 Chandi Borobudur (for the use of the word 'chandi', see page 13). 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 Gunadharna, architect of Chandi Borobudur according to tradition, who is believed to keep watch over his creation through the ages.

The south-eastern corner of the plain 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 plain and flow to the Indian Ocean. The Kedu plain 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 plain the two rivers flow together, after which the Progo carries the waters to the ocean alongside the southward-bending Menoreh range.

The area around the confluence of the Progo and the Elo rivers was in ancient times a holy place of particular significance. A considerable number of the Kedu plain monuments were founded here. Hindu and Buddhist sanctuaries were, so to speak, packed together within a radius of less than three kilometres from the point where the two Kedu rivers meet.

It is remarkable that, whereas the Buddhist monuments are relatively well preserved, the Hindu temples have all disappeared. Of Chandi Banon (which has given the Central Museum in Jakarta its best specimen of classical sculptural art) for instance, nothing at present remains but a rice-field dotted with broken bricks. The scanty remains of Chandi Ngrajeg, scattered among the fields and the village houses, give little idea of the vast compound it originally constituted.

The Buddhist ruins were rediscovered in better condition, so that the restorations attempted in the beginning of the present century were able to rescue them from total loss.

From west to east, the main Buddhist monuments of the area are: Chand Borobudur, Chandi Pawon, Chandi Mendut, and the Chandi Ngawe compound which consists of five structures. The first three sanctuaries are assumed to have formed one compound also; though standing at a considerable distance from each other, a straight line drawn from Chandi Borobudur to Chandi Mendut through Chandi Pawon suggests the unity of the triad.

A chandi compound is normally laid out as a whole. The structures are built close together, the main building being clearly distinguished from the ancillary temples. A surrounding wall borders the common courtyard.

This kind of lay-out, however, is not to be found at Borobudur. Chandi Mendut is some three kilometres from Chandi Borobudur, while Chandi Pawon is approximately half that distance away. It is hard to imagine a common courtyard covering so large an area. No traces have ever been found of any enclosure keeping the triad together and bordering the common courtyard. Nevertheless, there is good reason to assume that the three monuments belong to one single grand design.

According to oral tradition the triad was once linked by a paved processional path, flanked by richly decorated balustrades. Unfortunately, land and aerial surveys so far carried out have produced no convincing evidence of this. Some hewn stones found in the fields east of the village of Borobudur many decades ago are supposed to be remains of the pavement. Further evidence is still lacking.

The exceptional composition of the triad has led to much speculation about the relation between Chandi Borobudur, Chandi Pawon and Chandi Mendut. The most plausible link is religious, if the denomination 'compound' is

interpreted in a particular way; the three monuments can be taken as a whole to represent one religious conception.

Chandi Borobudur has no inner space, no place where devotees could worship. Most likely it is a place of pilgrimage, where Buddhists can seek after the Highest Wisdom. The passages all around the edifice, successively mounting to the uppermost terraces, are evidently meant for ritual circumambulations. Guided and instructed by the narrative reliefs, the pilgrim proceeds from one terrace to another in silent contemplation.

Chandi Mendut, on the other hand, does seem to have been a place of worship. In semi-darkness, the Buddha is represented by a formidable monolith, seated with hanging legs on a throne and flanked by the accompanying Bodhisattvas Avalokitesvara and Vajrapani. The depiction of the Buddha preaching the first sermon in the deer-park at Sarnath is apparently meant to recall right conduct in life to those who seek their refuge in the Compassionate Buddha.

The very small Chandi Pawon also has an inner space, but it does not reveal what deity might have been the object of worship. Not a single statue has been found, not the slightest indication that could be traced back. It is therefore impossible to say what was the actual function of the temple in relation to Chandi Mendut or to Chandi Borobudur.

The assumption that the pilgrim had to pass Chandi Pawon as he made his way from Chandi Mendut to Chandi Borobudur along the paved processional path might suggest that Chandi Pawon was a kind of station on the long journey; after being purified through the required ceremonies of worship at Chandi Mendut, Chandi Pawon allowed him to pause and reflect before proceeding on the pilgrimage to Chandi Borobudur where a tiresome series of circumambulations awaited.

The sequence followed by the pilgrim in ancient times remains the same for the present-day visitor. The normal route to Chandi Borobudur, either from Yogyakarta or from Magelang, passes Chandi Mendut anyway, so that the first monument which emerges before reaching Chandi Borobudur is Chandi Mendut. Chandi Pawon, however, is reached by a side-way, since the present road does not follow the ancient processional path.

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 plain was once a huge lake. He suggested that Chandi 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. 235 m above sea-level. And so, remarkably enough, are the monuments Chandi Pawon and Chandi Mendut.

Nieuwenkamp came to the conclusion that the Kedu plain beneath the 235 m elevation line was once a lake on which the Borobudur monument 'floated'. Chandi Pawon and Chandi Mendut were situated on the banks of the lake. The identification of Chandi 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.

2. Rediscovery and rescue

It is not known with certainty how long Chandi Borobudur was in active use, or when it ceased to function as a monument to glorify the greatness of the reigning royal dynasty and, at the same time, as a centre of Buddhist pilgrimage.

The general assumption is that the chandis fell into disuse when people were converted to Islam in the fifteenth century. But it is quite possible that the monuments in Central Java were abandoned as early as the tenth century when historical importance shifted to East Java. If so, Chandi Borobudur was left to its fate several centuries earlier than the East Javanese monuments. Regardless of the exact time at which the chandis lost their significance in a changed society, they had in any case to be rediscovered one by one before our present knowledge of them could begin to accumulate.

But they have never been completely lost to the people's memory. In some way the glorious past and the monuments that witnessed to it were remembered, and especially by the villagers who lived nearby. The chandis still play a part in their daily life. The change in belief led of course to a gradual change in their attitude towards the monuments, evident in the way people ignored them. However, indifference was not the main explanation. A mysterious fear replaced the old understanding, the fear which predominates in any approach to the unknown. Superstitious beliefs gradually associated the obscure ruins with bad luck and misery.

Chandi Borobudur offers a good example of what it means to *become* the victim of such beliefs. Javanese chronicles of the eighteenth century mention two cases of bad luck associated with the monument. According to the *Babad Tanah Jawi* (History of the Island of Java) Borobudur hill proved fatal to a rebel who made a stand there when he revolted against the king of Mataram in 1709 A.D. The hill was besieged, and the insurgent was defeated. He was brought as a captive before the king, who sentenced him to death. The *Babad Mataram* (History of the Kingdom of Mataram)

related the bad luck of the crown prince of the Sultanate of Yogyakarta in 1757. In spite of the prevailing restrictions on visiting Chandi Borobudur, he took such pity on 'the knight who was captured in a cage' (i.e. the statue in one of the perforated stupas) that he could not help coming to see his 'unfortunate friend'. As soon as he was back at the palace, he died unexpectedly after a one-day illness.

It was not until 1814 that Chandi Borobudur emerged, actually and figuratively, from its dark past.

Between 1811 and 1816 Java was under British rule. The representative of the British Government was Lieutenant Governor-General Sir Thomas Stamford Raffles, who was extremely interested in Java's past. He collected as much historical material as possible through numerous contacts made while travelling through the different parts of the island. In 1814, on an inspection tour in Semarang, he was informed of the existence of a big monument, called Chandi Borobudur, in the village Bumisegoro near Magelang. He was not able to come and see the new discovery for himself, but sent Cornelius, a Dutch engineer officer who had ample experience in exploring antiquities in Java, to investigate.

Cornelius employed some 200 villagers to fell trees, burn down bushes, and dig away the earth and rubbish in which the monument had long been buried. In two months he had completed the work, though many parts of the galleries could not yet be unearthed because of the danger of collapse. He supplemented his report with various drawings.

Raffles gave very little published acknowledgement to all this hard labour. The two volumes of his *History of Java* which appeared in 1817 devoted only a few sentences to the monument. The chapter on the antiquities is very brief, as he intended to publish separately an 'Account of the Antiquities of Java'. This never in fact appeared.

However, it remains greatly to the credit of Raffles to have rescued Chandi Borobudur from oblivion, and to have brought it to the notice of a wide range of people.

The activities of Raffles and Cornelius had two contradictory results on the site. The villagers lost their superstitious fears and began to regard the newly-unearthed monument as an inexhaustible source of building material. On their side, the local authorities were becoming anxious to know what else the monument was still hiding.

The Dutch administrator of the Kedu region, a certain Hartmann, was one of those in authority who paid special attention to Chandi Borobudur. He arranged for the further removal of the debris and the cleaning of the galleries, so that, by 1835, the entire monument was freed from its last disfiguring cover.

It is a great pity that Hartmann wrote no account of his activities, so that what is known about them can only be derived from later reports. It is particularly to be regretted that the story about his alleged discovery of a stone Buddha in the main stupa has led to endless dispute.

In 1842 Hartmann made a thorough investigation towards the interior of the big dome. What he actually found is unknown, but Wilsen's report of 1853 mentions a Buddha the size of one of the hundreds of other Borobudur statues. No such statue was ever mentioned by investigators before 1842. The story went round that the statue was one placed there by the native district officer in order to satisfy the Dutch administrator.

Hartmann was interested in Chandi Borobudur personally rather than as a government official, but Wilsen was an engineer officer sent officially by the Government to make drawings of the architectural details and the reliefs. Arriving in 1849, he worked for four years making architectural drawings and several hundred sketches of the reliefs.

He also made a study of the monument itself, and wrote three articles about it. The Government meanwhile appointed Brumund to make a detailed description, which he completed in 1856. Then a grave misunderstanding arose. Brumund thought his study would be published and supplemented by Wilsen's drawings. The Government, however, intended the official publication to be based on Wilsen's articles and drawings, with Brumund's study as a supplement.

Brumund was very unhappy and refused all further cooperation. The Government then had to designate another scholar and chose Leemans who, in 1859, was asked to use the manuscripts of both Wilsen and Brumund and compile a monograph that was to be supplemented by Wilsen's drawings.

Leemans had a lot of trouble, mainly because of varying opinions regarding the reliability of Wilsen's drawings and the procedures to be used in reproducing them. But when the monograph at last appeared in print in 1873 (followed by a French translation in 1874), all the material available on Chandi Borobudur was at the disposal of the general public. Information was provided on every detail of the monument, and Chandi Borobudur could never again disappear into oblivion.

3. Buddhism

In the sense that there was no god to be worshipped, Buddhism was not originally a religion. It was rather a doctrine explaining how to achieve the ultimate release from all sufferings: to nullify *karma*, to break up *samsara*, and finally to achieve *nirvana*.

Underlying the doctrine is the conviction that life is misery. Since the phenomenal world is not real, life in all its aspects is illusion. It is changing all the time, and nothing in it is eternal.

Life is both a continuation of earlier lives, and a preparation for the next one, a station in the endless cycle of being born and reborn. The form and circumstances of each station are determined by their predecessors.

The determining factor is not the station as such, but the *karma*, the balance of good and bad acts. A positive balance will secure a better next

life, and a life that continues to improve will culminate in a rebirth in heaven. This, however, does not break *samsara*, the cycle of birth and rebirth, since a celestial being is also a temporary manifestation, for whom the law of cause and effect remains valid.

The ultimate goal is therefore to avoid any form of rebirth. At this final stage the devotee achieves *arhat*. Not he waits only for the right moment to enter *nirvana*, which is absolute non-existence.

The Four Noble Truths explain how ultimate salvation from *samsara* is attained. The conviction that life is suffering is the first Truth. The second is that suffering is caused by desire - the desire to exist and to cling to the phenomenal world (which is considered as real because of a wrong insight). The third Truth is that suffering can be eliminated by extinguishing desire. The fourth is formulated in the Eightfold Path, showing the way in which desire can be extinguished. The Path consists of the following steps: 1. correct view, 2. correct thought and purpose, 3. correct speech, 4. correct conduct, 5. correct livelihood or occupation, 6. correct zeal, 7. correct remembrance, which retains the true and excludes the false, 8. correct meditation.

Desire is the fundamental source of misery, but is in fact secondary, since it is the result of a long process of an illusive insight. The primary source of all sufferings is *avidya* or ignorance. Indeed, it is ignorance that causes the misconception. Hence, Buddhism sets no value on rituals, nor on penance. The devotee seeks refuge in the *triratna*, i.e. the *Buddha*, the *dharma* (Buddhist doctrine) and the *Sanggha* (Buddhist community). By following the Buddha's example, by carrying out the Buddha's instructions, and by joining the Buddha's community of monks, he will be guided safely along the Eightfold Path and achieve *nirvana*.

In the further development of Buddhism, the attainment to *nirvana* ceased to be the ultimate goal. To be consistent with the Buddha's example, it was the salvation of others that should be striven for rather than the one's own; for, when the Buddha attained enlightenment, and thus achieved *nirvana*, he remained in this phenomenal world to give other creatures a share in salvation. The purpose of his doctrine was to enable his followers to attain *nirvana*.

The change in attitude was again founded on stories about the Buddha's former lives. It was assumed that the Buddha had been reborn hundreds of times before he was born for the last time to become the historical founder of Buddhism. In each of his incarnations he distinguished himself by spectacular saintly deeds. He was always ready to sacrifice everything he possessed, even his soul, for the sake of others. Indeed, he was a Bodhisattva, or one whose nature was enlightenment, all the way through the cycle of birth and rebirth.

In the new sect, therefore, the figure of Bodhisattva replaced the image of *nirvana*. Hence its followers called their school *Bodhisattvayana* while

denoting the orthodox sect *Nirvanayana*; the more popular name is *Mahayana*, or The Great Vehicle. Its principle is to pursue salvation for the many instead of for one's own self.

The ideal of the *Mahayana* Buddhist is to become a Bodhisattva, on his long way to attaining Buddhahood. This implies that there will be numerous future Buddhas in addition to the previous Buddhas. And since the Buddha on earth is considered to be a manifestation of an everlasting, transcendental Buddha, a pantheon of considerable extent developed.

The human Buddha is called *Manusi* Buddha, whereas the transcendental Buddha is denominated *Dhyani* Buddha. In contrast to the *Dhani* Buddha, the *Manusi* Buddha has a temporary existence only. As soon as he has accomplished the task of bringing release to the suffering world, he vanishes into *Pari Nirvana*.

To maintain *dharma* and take care of the *sanggha*, the *Dhyani* Buddha emanates once again, now no longer in human form but in the shape of a divine being. The term of this heavenly emanation, called *Dhyani Bodhisattva*, runs out as soon as the next *Manusi* Buddha is born on earth to bring enlightenment to the new world.

If there are innumerable *Manusi* Buddhas there must also be countless *Dhyani* Buddhas. However, in systematizing the pantheon, *five Dhyani* Buddhas only are taken into consideration: three for the past, one for the present, and one more for the future. A fixed place in the universe, coinciding with the cardinal points of the compass, is allotted to each of the *Dhyani* Buddhas.

The sequence of *Dhyani* Buddhas 'reigning' over the world, and their allotted points of the compass, can be summarized as follows:

1. *Dhyani* Buddha : *Vairochana*
Dhyani Bodhisattva : *Samantabhadra*
Manusi Buddha : *Krakuchchanda*
Place : Zenith
Time : Past
2. *Dhyani* Buddha : *Aksobhya*
Dhyani Bodhisattva : *Vajrapani*
Manusi Buddha : *Kanakamuni*
Place : East
Time : Past
3. *Dhyani* Buddha : *Amoghasiddhi*
Dhyani Bodhisattva : *Ratnapani*
Manusi Buddha : *Kasyapa*
Place : North
Time : Past

4. Dhyani Buddha : **Amitabha**
Dhyani Bodhisattva: **Avalokita**
Manusi Buddha : **Sikyamuni**
Place : West
Time : Present

5. Dhyani Buddha : **Ratnasambhava**
Dhyani Bodhisattva: **Visvapani**
Manusi Buddha : **Maitreya**
Place : South
Time : Future

4. A look into history

No written documents whatsoever on the construction of Chandi 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 (see page 18) 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 Chandi Borobudur was very likely founded around the year 800 A.D.

This 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 predominate in the mountain regions; in the plains of Kedu and Prambanan, both Sivaite and Buddhist monuments were erected close together.

The name 'Sailendra' appears for the first time in a stone inscription found at Sojomerto in the north-western coastal area of Central Java. As it is a personal name, the obvious assumption is that the later rulers of the Sailendra dynasty were his descendants.

The Sojomerto inscription is not dated, but on palaeographical grounds it can be ascribed to the middle of the seventh century. The oldest dated inscription - not only of Central Java, but of the whole of Indonesia - was found in the stone charter of Canggal, issued by king Sanjaya in 732 A.D. It commemorates the foundation of a Siva *lingga* sanctuary on the Gunung Ukir hill, some 10 kms only east of Chandi Borobudur.

The name Sanjaya appears once again in the Mantyasih charter of 907 A.D., found some 15 kms north of Chandi Borobudur, which is unusual in that it contains a list of kings preceding the reigning King Balitung (who issued the charter). Though no account is given of the genealogical relations, the kings listed were apparently successive rulers of one and the same kingdom.

The list of kings starts with Sanjaya, obviously the founder of the dynasty. His immediate successor was Rakai Panangkaran, who was associated with the foundation of the Buddhist temple of Kalasan, as is shown by the Kalasan charter of 778 A.D. Since the foundation is explicitly ascribed to the Sailendra dynasty it is not unreasonable to believe that Rakai Panangkaran was in fact the Sailendra king who had the *Tara* temple built in the village of Kalasan.

The Sailendras are known to have been ardent followers of the Lord Buddha, but the Sailendra of the inscription of Sojomerto was a Hindu. The charter of Mantyasih is also Hindu. It could therefore be assumed that the other kings listed were all followers of the Hindu religion. Rakai Panangkaran, however, would have been a Buddhist, since he was directly involved in the establishment of the Kalasan temple.

The evidence is confusing. Many scholars believe that two dynasties ruled over Central Java in the second half of the eighth century, viz. the Sivaite Sanjaya dynasty and the Buddhist Sailendras. According to this theory, Rakai Panangkaran was a Sanjaya king whose contribution to the foundation of the Buddhist sanctuary of Kalasan was simply to grant the required plot of land; he was not necessarily a Buddhist himself. Religion has never been a source of any serious conflicts in Indonesia. It would therefore have been quite possible for a Hindu king to patronize the establishment of a Buddhist foundation, or for a Buddhist king to act likewise. Even a change in the official religion could take place without affecting the continuity of the dynasty and of cultural life.

As far as Rakai Panangkaran is concerned, it is more likely that his involvement in the foundation of Chandi Kalasan was an indication that a change in the official religion had taken place. As if to justify this change, he traced back his ancestry to Sailendra and introduced the denomination Sailendrawangsa (*wangsa* = dynasty). This assumption fits in nicely with what king Balitung did in his Mantyasih charter. Even though he did not use the appellation 'Sanjaya-wangsa', he demonstrated the re-establishment of Hinduism as the official religion by enumerating his predecessors and proclaiming that the ardent Siva worshipper Sanyaya was his forefather. The assumption that one single royal dynasty ruled over Central Java from the eighth to the early tenth century simultaneously eliminates closely-related academic problems concerning the origin of the Sailendras and the extent of their kingdom in Central Java.

The prevailing opinion is that the Sailendras were of foreign origin. They are supposed to have come either from South India or from Indo-China. Since the smooth Java Sea provides the easiest access to Central Java, they might have been expected to settle in the northern regions. This, however, is difficult to reconcile with the fact that the Sailendras emerged in history in the southern part of Central Java, whereas the earlier native Sanyayas had their territory farther north.

The native origin of Hindu rulers in Indonesia is many times attested by historical documents. Even the oldest Hindu kingdom of Kutei in East Kalimantan (fifth century A.D.) was from the very beginning ruled by a native. King Mulawarman, who issued seven pillar edicts in Sanskrit, stated that he was a son of Asvavarman who in his turn was a son of Kundungga.

A Sanskrit name does not necessarily indicate the Indian origin of the bearer. On the other hand, a native name very strongly suggest a prevailing indigenous tradition. So Kundungga was most likely a native who seemingly was not yet converted to the Hindu religion, but permitted Hinduism in his country. Starting with his son, the new religion apparently obtained a foothold in the court.

Furthermore, it is explicitly stated in the Kutei edicts that, to ensure the proper performance of religious ceremonies, Brahmans from afar were invited. It is also interesting to note that the main deity to whom homage was paid was Vaprakesvara who, despite the Sanskrit sound, was alien to the Hindu pantheon as taught in India.

There are various theories regarding the spread of Hinduism. The Vaisha theory stresses the extremely important role of the merchants who travelled from one country to another, bringing with them, not only merchandise, but also their way of life. The Ksatria theory ascribes the spread of Indian culture to military expeditions and conquests that resulted in permanent colonizations. The Brahmana theory lays stress on the part played by the priests, who were frequently in foreign countries on religious missions. A fourth theory recognizes the parts played by both traders and priests, but rejects the explanation of cultural penetration by force.

This last theory accords best with the evidence so far available, but neglects the active part played by the native people themselves. A cultural contact always involves two parties, whereas the adoption of alien cultural elements depends rather on the receiving party - on whom, moreover, the adaptation and integration of these foreign elements into the native culture wholly depends.

The part the Indonesians played in this process was apparently not confined merely to adopting and digesting imported Indian elements, but involved missions to the 'mother country' as well. An Indonesian settlement at Nalanda in India is known, indeed, from an Indian charter of the ninth century, and it could easily belong to a tradition going back several centuries. Nor would it be at all surprising to find that it was Indonesians themselves who introduced Indian cultural elements which they brought back home. Being seafarers from prehistoric times, they were known to cross the seas in their distinctive boats that were equipped with outriggers and they may well have ensured continuous contacts between India and Indonesia.

The assumption of continuous, or at least regular, contacts would help to

explain the rise of the oldest kingdoms in various parts of the country. The royal edicts seem to suggest the sudden emergence of individual kingdoms, and the lack of any relationship between them lends support to the Ksatria theory of conquest and colonization. However, the involvement of a native forefather in the genealogy of the reigning king, who issued the edicts, can only be taken to reflect a smooth transition of power; for it is inconceivable that these kingdoms could have come into existence without a considerable prior period of acculturation. As a matter of fact, the edicts, composed in perfect metrical Sanskrit, would not make sense to the people for whom they were intended unless they could already appreciate this quite foreign language, now used in official documents.

The earliest history of Indonesia is marked by the sudden rise, and by the abrupt end, of the oldest kingdoms. The kingdom of Kutei in Kalimantan (fifth century) and the kingdom of Tarumanagara in West Java (fifth century), each had its royal edicts, issued by a single king. The same kind of evidence is available on the first period of the kingdom of Sriwijaya in South Sumatra (last quarter of the seventh century). The existence of the kingdom of Kanjuruhan in East Java is known from one single document (Dinoyo charter of 760 A.D.). A more or less continuous flow of written documents is available on Central Java, starting with the Changgal charter of 732 A.D. and terminating with the edicts of King Balitung in the early tenth century. For this reason the first nine centuries of the Christian era constitute the 'Central Javanese period' of ancient Indonesian history.

From the middle of the tenth century to the end of the fifteenth is known as the 'East Javanese period'. Though Sumatra and Bali also contributed to the making of Indonesian history, most of the events are documented in East Javanese inscriptions and manuscripts. Building was also concentrated in East Java, so that 'Central Javanese' and 'East Javanese' have become accepted terms in dealing with monuments and sculpture in the literature.

The Monument

1. The name Borobudur

Monuments dating back to the ancient period of Indonesian history are commonly called *chandi*, irrespective of what they were originally meant for. They thus include not only temple buildings, but such things as gates and bathing-places.

In the case of most *chandis* the original name is not known. Often people of nearby villages do not even know of their existence. Much of this cultural heritage had to be rediscovered. No wonder that *chandis* are simply called after the nearest village. A few, however, have preserved their names; in such cases the village is named after the *chandi*.

It is very difficult to find out whether *Chandi Borobudur* is called after the village of the other way about. In Javanese chronicles of the eighteenth century mention is made of a hill called *Borobudur*. Sir Thomas Stamford Raffles (see p. 8) - 'discoverer' of the monument' - is said to have been told in 1814 about the existence of a monument called *Borobudur* in the village of *Bumisegoro*. *Borobudur* would therefore seem, in any case, to be the original name.

But no ancient document yet found contains this name. An Old Javanese manuscript of 1365 A.D., called *Nagarakrtagama* and composed by *Mpu Prapancha*, mentions 'Budur' as a Buddhist sanctuary of the *Vajradhara* sect. It is not impossible that this 'Budur' is to be associated with *Borobudur*, but the lack of any further information makes a definite identification difficult.

A village in the immediate vicinity still bears the name 'Bore' - preserving perhaps the first part of the original name of the monument. The compound 'Boro-Budur' is hard to explain. To take it as meaning 'the Budur sanctuary in the village Boro' would contradict the rules of the Javanese language, which require that the words be the other way round (*Budur Boro* instead of *Boro Budur*).

Raffles suggested that 'Budur' might correspond to the modern Javanese word 'Buda' (ancient); *Borobudur* would thus mean 'ancient Boro'.

He also put forward another hypothesis: *Boro* means 'great', and *Budur* stands for 'Buddha', i.e. the monument was simply called after the The

Great Buddha. In fact, 'boro' should rather mean 'honourable', being derived from the Old Javanese '*bhara*', an honorific prefix, so that 'the sanctuary of the honourable Buddha' would be more correct.

However, 'boro' may also represent the Old Javanese word '*bhara*', meaning 'many' (cf. the modern Javanese word '*para*', denoting a plural), so the interpretation of 'Borobudur' as the sanctuary of 'The many Buddhas' has an equal claim.

The main objection to the above interpretations is that 'Ancient Boro' is not relevant, and 'The Great Buddha', 'The honourable Buddha' and 'The many Buddhas' offer no explanation of the change of 'Buddha' into 'Budur'. Indeed, there is no way to justify it.

A more plausible interpretation was proposed by the late Poerbatjaraka. He assumed that the word 'boro' stands for '*biara*', which means 'monastery'. Borobudur would then mean 'The monastery of Budur'. Indeed, foundations of a monastery were unearthed during archaeological excavations carried out on the plateau west of the monument in 1952. As the name 'Budur' is mentioned in the *Nagarakrtagama*, Poerbatjaraka's interpretation might be right. But if so, how could the monastery stand for the monument in the people's mind?

All the above explanations are based on interpretations of the composing words 'Boro' and 'Budur'. De Casparis tried tracing both words back to their probable origin. He pointed out that a name 'Bhumisambharabhadhara', denoting a sanctuary for ancestor worship, was found on two stone inscriptions dating from 842 A.D. After a thorough analysis of the religious aspects and a detailed reconstruction of the geography of the area in which historical events took place, he concluded that the sanctuary of Bhumisambharabhadhara could not be other than our Borobudur, and that the change to the present name occurred through the normal simplification that takes place in a spoken language.

Although many scholars object to De Casparis' explanation, no more plausible solution has yet been put forward. Moens suggested that - on the analogy of the South-Indian *Bharasiwa*, denoting the ardent adherents of the Hindu God Siva - our monument was associated with the 'Bharabuddha' or zealous upholders of the Buddha. The name 'Borobudur' would then be a contraction of 'Bharabuddha' with the Tamil word *ur* for 'city' added on, thus meaning 'The City of the upholders of the Buddha'. However, 'Bharabuddha' is a mere hypothetical reconstruction, with no documentary backing or evidence, and Moens' theory has not been generally accepted.

2. The structural design

Chandi Borobudur is built on a long natural hill, the ridge of which was levelled and converted into a plateau. The main part of the plateau forms the site of the monument. This walls in the top of the hill which had re-

mained intact. The plain on the north-western spur of the hill provided the site for the monastery.

The plateau is some 15 m higher than the surrounding plain, and the top of the hill rises about 19 m above the plateau. It is around and over the top of the hill that the monument is constructed. A considerable amount of fill was required, however, as the hilltop was not sufficient to serve as the core of the structure.

Chandi Borobudur differs completely from the general design of such structures. It is not a building erected on a flat, horizontal base, leaving an inner space for the enthronement of a statue, but a stepped pyramid, consisting of nine superimposed terraces, and crowned by a huge bell-shaped stupa.

The building technique, however, is the same as that used in the construction of chandis in stone. The building material was not collected from quarries, but taken from neighbouring rivers. The stones were fashioned and cut to size, transported to the site, and laid without mortar. The stones are made to grip by means of dovetails in the horizontal connections, and indentations in the vertical joints. The use of a knob on one side of a stone that fits into a corresponding hole in the next is also very frequent. These arrangements allow a certain flexibility, so that the monument can withstand slight movements without undergoing any immediate danger of collapse. When building was completed, the carvings and other embellishments were added. Normally they started from the top, but could also be added simultaneously at several parts.

The structural design is complicated but a main vertical division into three parts (base, body and top) is evident.

The base forms a square with protuberances. The square itself measures 113 m x 113 m, the overall dimensions being 123 m x 123 m. The 4 m high walls of the base are supported by a foothold, resembling a huge plinth - 1.5 m high and 3 m across.

The body or middle part of the monument is composed of five terraces, which diminish in size with height. As if to emphasize the changes from one part to another, the first of these terraces stands back some 7 m from the sides of the base, creating a broad platform right round the monument. The other terraces retreat only 2 m at each stage, and balustrades at the outer sides convert the narrow galleries into corridors.

The superstructure is again clearly distinguished from the terraces. It consists of three re-entrant circular platforms, each of which supports a row of perforated stupas. Surmounting the rows of stupas, which are arranged in concentric circles, the central dome on top of the whole monument soars into the sky to a height of nearly 35 m above ground-level.

Access to the upper part of the monument is provided by stairways in the

middle of each side of the pyramid. Through a series of gates (most of which have been lost at each level), a stair leads directly to the circular platforms, at the same time intersecting the corridors of the square terraces. The main entrance is at the eastern side (as is evident from the start of the narrative reliefs - see p. 21).

Staircases are also found on the slopes of the hill, mounting from the lower-lying plain to the elevated plateau, and linking up with the stairways of the monument by means of paved ways. The entrances are guarded by stone lions; other lions watch at the different levels of the pyramid - a total of 32 lion statues in all.

The builders of Chandi Borobudur realized the need for a drainage system because of the heavy rains. Spouts were provided at the corners of the mounting stages to drain off rain-water from the galleries. All of the 100 spouts are beautifully carved in the shape of *makaras* (gargoyles).

As Borobudur is so different from all the other chandis in Indonesia it has often been suggested that it is a stupa and not a chandi at all. A stupa was originally intended as a shrine for relics of the Lord Buddha. Later, it is quite possible that the corporeal remains of distinguished Buddhist saints were enshrined in such stupas. Sometimes a stupa was erected merely as a symbol of the Buddhist creed.

A chandi was mainly intended to house a deity, but relics were essential for its functioning. Certain parts of the chandi were set aside for relic boxes. The relics, however, were not corporeal remains, but metals, precious stones and seeds, really meant as mementos of the god, symbolically representing the divine power (see next page).

No such relics have yet been found in chandi Borobudur, relics of holy persons, or mementos of a divinity. It is unlikely that bodily remains were ever enshrined in the monument. For such purposes, other kinds of stupas would be erected and, indeed, small stupas were excavated at the beginning of the present century at the north-eastern foot of the hill. The scanty contents cannot be identified with certainty as bodily remains, but similar stupas in the courtyard of Chandi Kalasan proved to contain ashes of the dead and the remains of articles used by monks.

If Chandi Borobudur were a stupa rather than a chandi, it would be necessary to take a quite different view of its structural composition. The big stupa would not simply be the crown but the monument itself, the nine terraces then being only the storied base that supports it.

It is quite possible for a stupa to be erected on a multiple base, but hardly in such a way that it is wholly dwarfed in size and importance by that base. This is altogether irreconcilable with the supreme sense of beauty and the quality of the work visible in every detail of Chandi Borobudur. After all, a construction involving not less than 55,000 cubic metres of stone would never have been started without first having a well-planned design. The

obvious conclusion is, therefore, that Chandi Borobudur is a chandi rather than a stupa, despite its difference from any other chandi in Indonesia. The vertical division of Chandi Borobudur into base, body and superstructure, making the big stupa merely the top of the monument, perfectly accords with the idea of the chandi as representing the cosmic mountain. The three superimposed parts represent the three Spheres of the Universe, viz. : the *bhurloka* or the Sphere of the Mortals, the *bhuvvarloka* or the Sphere of the Purified, and the *svarloka* or the Sphere of the Gods. The chandi also has internal symbols of the three spheres. In the centre of the base there is a pit, at the bottom of which a ritual deposit box was placed. The box contained the *pripih* which consisted of several pieces of metal, precious stones and various seeds, symbolizing the earthly elements. Over the pit, in the temple-chamber, the image of the God was enthroned. In the superstructure of solid stone, a small space was reserved for another *pripih* which represented the divine elements. During the ritual ceremonies the deity descended from his temporary abode in the small space in the top of the chandi to the temple chamber, and imbued the statue with his spirit. At the same time the earthly elements from the pit in the base of the chandi provided the statue with a temporary body. Complete with body and soul, the statue came alive. It was no longer an inanimate object, but a living God, who could receive homage and communicate with the officiating priest.

Since Chandi Borobudur has no inner space, it could not function fully as a chandi. It can therefore be considered as a place of pilgrimage rather than a place of worship, the system of staircases and corridors guiding the pilgrim gradually to the uppermost platform through perambulations along the successive terraces.

Buddhism lays particular stress on the stages of mental preparation to be undergone before attaining the ultimate goal, i.e. the definitive liberation from all earthly bonds and the absolute exclusion from being reborn. The three spheres of the Universe are consequently designated in similar terms. The lowest sphere is the *kamadhatu* or the Sphere of the Desires. At this stage man is bound to his desires. The higher Sphere is the *rupadhatu* or the Sphere of Forms, where man has abandoned his desires but is still bound to name and form. The highest sphere is the *arupadhatu* or the Sphere of Formlessness. In this sphere there is no longer either name or form. Man is once and forever freed from all bonds with the phenomenal world.

At Chandi Borobudur the *kamadhatu* is represented by the base, the *rupadhatu* by the five square terraces, and the *arupadhatu* by the three circular platforms plus the big stupa.

The *rupadhatu* is distinguished from the *arupadhatu* not only by the architectural features, but also by the abundance of decoration of the square terraces in contrast to the plainness of the circular platforms. The base,

however, gives no immediately visible evidence of representing the *kamadhatu*. This is because it is not the original support of the monument, but an encasement which hides the real base, and its series of 160 reliefs, from the visitor's sight.

This base, popularly called 'the hidden foot', was discovered in 1885. The discovery revealed, not only the reliefs, but short inscriptions engraved over very many of the panels. The inscriptions apparently were instructions for the sculptors, indicating the scene to be carved. They were recognized as key words from the holy Buddhist script '*Mahakarmavibhanga*'. The text deals with the operation of *karma*, i.e. the law of cause and effect, in reincarnation, in heaven and in hell. The reliefs depict morality on earth, showing how every thought, act and feeling result either in some happy circumstance or some terrible mishap.

The law of cause and effect is based fundamentally on the predominance of desire. Hence the designation *kamadhatu* is undoubtedly correct for the base and 'hidden foot' of Chandi Borobudur.

The obvious question, of course, is why the 'foot' was buried, hiding the zeal and dedication of the devoted artists. The use of 12,750 cubic metres of stone to make the encasement, and the sacrifice of architectural elements and reliefs seem to indicate very strongly that the soundness of the monument was at stake. As a considerable part of the gradually mounting foundations of the stepped pyramid had to rest on filled earth, some sliding probably took place, and it became necessary to wall in the base. In other words, the encasing wall was a retaining embankment thrown up all around to prevent further sliding and to avoid worse disaster.

The technical solution of an encasement had certain aesthetic and religious compensations. The broad platform provided by the additional wall smoothes the outlines. At the same time it furnishes ample space and allows the pilgrim to perform the preliminary rounds at leisure and deeply reflect again before entering the narrow Path of Buddhism. For, in contrast to the openness of the earthly life in the *kamadhatu*, the path leading to the ultimate salvation requires a narrowing of the bodily sight and a concentration of the mind; and the narrow galleries of the *rupadhatu* help the faithful to achieve this in a most appropriate way.

The *rupadhatu* is at first sight bewildering. The walls are full of reliefs, and so are the balustrades. No less than 1300 panels of narrative reliefs, for a total length of 2500 m, and a further 1212 decorative reliefs, flank the corridors. Over the reliefs on the walls a continuous carved frieze stretches for over 1500 m, and the cornices above it are embellished by 1416 antefixes. The upper part of the walls (corresponding to the outer facades of the balustrades) consists of niches alternating with decorative reliefs. There are 432 niches around the five terraces, each containing a seated Buddha statue. Over and above the niches small solid stupas soar into the sky. And since the walls behind the niches constitute the inner facade of the balustrades,

the row of 1472 stupas form in turn the slightly rugged skyline of the balustrades.

The bewildering abundance of forms in the *rupadhatu* has its counterpart in the narrative reliefs. The biography of the Lord Buddha, from his descent from heaven until his enlightenment, is depicted on the main wall of the first gallery. The story of Sudhana in search of the Highest Wisdom and the Ultimate Truth is told in the reliefs which cover the walls of the second, third and fourth galleries.

The perseverance of the principal figures of the *rupadhatu* and their tireless efforts to reach the ultimate goal, despite their involvement with the extreme richness and beauty of forms, provide a model for the pilgrim as he goes on his rounds through the successive stages.

In striking contrast to the square terraces of the *rupadhatu*, the circular platforms representing the Sphere of Formlessness are plain: no carvings, no ornaments, no embellishments. The only break in the monotonous plainness is offered by the row of stupas that encircle the big central dome. Supported by lotus cushions, the stupas are arranged in three concentric circles, corresponding to the three circular platforms. In all there are 72 stupas: 32 on the lowest or first platform, 24 on the second and 16 on the third.

Each of the 72 stupas has a kind of lattice-work surface, composed of stones and diamond-shaped empty spaces which partly disclose the seated Buddha statue inside.

The central stupa rests on a base nearly 10 m in diameter and a huge lotus cushion half a metre thick. The dome has an inner space, but no entrance was possible. Though empty when investigated, the inner space was very probably the depository for the *pripih* or relics.

The spire of the dome is mutilated. Remains of the missing part were once used to make a conjectural reconstruction of the pinnacle. Its three superimposed umbrellas gave the monument a total height of 42 m (instead of the present 34,5 m). However, as there was no really trustworthy basis for this reconstruction, no actual restoration of the spire has yet been undertaken (see p. 44).

The complete openness of the *arupadhatu*, and the magnificent view from it, realistically symbolize the endless widening of his spiritual horizon that the pilgrim can achieve by consistently following the devout conduct in life of the Lord Buddha. Having absorbed the spirit of the *rupadhatu*, he knows the delight of becoming wiser, if not enlightened. And the ordinary visitor finds that his weary journey is richly rewarded.

3. The reliefs

The particular position of Chandi Borobudur among Indonesian monuments derives not only from the exceptional architecture, but also from the

striking abundance of elaborately carved bas-reliefs which cover the facades of the walls and the balustrades - a total surface of 2500 square metres. The reliefs can be divided into two types: narrative and decorative. The 1460 narrative panels are arranged in eleven rows that go all around the monument for a total length of over 3000 m. The 1212 decorative panels, although arranged in rows, are treated as individual reliefs. The first series of 160 narrative panels are on the hidden foot and consequently not visible. Fortunately, a complete set of photographs was made not long after they were rediscovered, and they can be identified as depicting the operation of the law of *karma* according to the *Mahakarmavibhangga* text.

The other ten series of narrative reliefs are distributed throughout the *rupadhatu* on the walls and balustrades of the four galleries. The first gallery is flanked by four series; the remaining three successively mounting galleries have only two series each.

The wall of the first gallery, over 3.5 m high, has two superimposed series of reliefs, each consisting of 120 panels. The upper row relates the biography of the Buddha according to the *Lalitavistara* text. The lower row depicts his former lives, as told in the *jatakas* and *avadanas*; these earlier incarnations before being born to become the historical Buddha are also narrated in the two superimposed rows of reliefs on the balustrade.

The balustrade of the second gallery has another *jatakas* and *avadanas* series, but the wall panels take a new theme. As there is only one row of them on the almost 3 m high wall, they are considerably larger than those on the wall of the first gallery. The 128 panel series deals with the tireless wanderings of Sudhana in search of the Ultimate Truth, as told in the *Gandavyuha* text.

The walls and balustrades of the third and fourth galleries are devoted to the further wanderings of Sudhana, terminating with his attainment of the Highest Wisdom.

There are in all 1460 panels. The following summary shows how the various series of reliefs are arranged.

Wall of hidden foot	Karmavibhangga –	160 panels
First gallery	main wall : a) Lalitavistara	- 120 panels
	b) Jataka/Avadana	- 120 panels
 balustrade : a) Jataka/Avadana	- 372 panels
	b) Jataka/Avadana	- 128 panels
Second gallery	main wall : Gandavyuha	- 128 panels
 balustrade : Jataka/Avadana	- 100 panels
Third gallery	main wall : Gandavyuha	- 88 panels
 balustrade : Gandavyuha	- 88 panels
Fourth gallery	main wall : Gandavyuha	- 84 panels
 balustrade : Gandavyuha	- 72 panels
	<hr/>	
	Total :	1460 panels

The narrative reliefs on the walls read from right to left, those on the balustrades from left to right. This was done for the purposes of the *pradaksina*, i.e. the ritual circumambulation which the pilgrim makes, moving in a clockwise direction and keeping the sanctuary to his right. The narrative starts at the left and ends at the right of the eastern stairway, confirming that this stairway is the real entrance to the monument.

Karmavibhangga

The reliefs on the 'hidden foot' are devoted to the inevitable law of *karma*. The 160 panels do not relate a continuous story, but each provides one complete illustration of cause and effect.

The first 117 panels show various actions producing one and the same result, while the remaining 43 demonstrate the many results that can follow from one kind of act. Blameworthy activities, from gossip to murder, with their corresponding purgatorial punishments, and praiseworthy activities, like charity and pilgrimages to sanctuaries, and their subsequent rewards, are both shown. The pains of hell and the pleasures of heaven, and scenes of daily life are represented in a full panorama of *samsara*, the endless cycle of birth and death, the chain of all those forms of delusional existence from which Buddhism brings release.

Lalitavistara

The *Lalitavistara* series does not provide a complete biography of the Buddha. It starts with the glorious descent of the Lord Buddha from the Tushita heaven, and ends with his first sermon in the Deer Park near Benares.

The relief showing the birth of the Buddha as Prince Siddhartha, son of King Suddhodana and Queen Maya of Kapilavastu (in present-day Nepal), is near the southern staircase. It is preceded by 27 panels, depicting the various preparations, in heaven as well as on earth, to welcome the final incarnation of the Bodhisattva (the would-be Buddha). Before leaving the Tushita heaven the Bodhisattva entrusted his crown to his successor, the future Buddha Maitreya. He then descended on earth, and in the shape of a white elephant with six tusks he penetrated Queen Maya's right womb. To the Queen this event appeared in a dream, which was later interpreted as meaning that a son would be born to her who would grow up to become either a sovereign or a Buddha.

Through charity and ascetism the royal couple prepared themselves for the coming events. Miracles took place in the royal palace: lions appeared on the thresholds and did not harm, elephants paid homage to the throne, and celestial beings thronged the palace grounds.

When Queen Maya felt that her time was approaching, she went to the Lumbini park outside the city of Kapilavastu. Standing under a plaksa-tree while holding one branch with her right hand she gave birth to a son.

Millions of nymphs made an audience, and the gods Indra and Brahma received the newly-born child in their arms. As soon as the foot of the prince touched the ground, a big lotus flower sprang up to support him. He then took seven steps towards each point of the compass. At each step a lotus flower sprang up, to prevent the tiny feet from touching the ground. Seven days after the birth of the Bodhisattva, Queen Maya passed away, and went to Indra's heaven of the thirty-three gods. Her sister, Mahaprajapati Gautami, took care of the child.

The great seer Asita of the Himalaya mountains, having come to know of the Bodhisattva's descent, went down to Kapilawastu and saw the young prince. He observed the thirty-two mysterious tokens peculiar to a super-human being, and informed King Suddhodana that the prince was destined to become a Buddha. He then wept sorrowfully, realizing that, at his age, he could not hope to live long enough to hear the Buddha when he would begin to preach.

Maheswara, the god Siva himself, was not absent either. Escorted by thousands of gods, he came and paid his respects to the Bodhisattva. At this occasion King Suddhodana was requested to take his son to a temple. The king agreed, and the royal company proceeded to the temple. Suddenly all the statues of the gods left their pedestals and prostrated themselves before the feet of the Bodhisattva.

When he was of age the prince was sent to school. On seeing the new pupil the teacher fell on his knees and paid homage. In the classroom the Bodhisattva proved of surpassing excellence. He took a writing-table and wrote down all existing scripts. When the other pupils were asked to recite the alphabet, he uttered wise phrases commencing each time with the letter recited.

Once the prince was brought into a field. He took shelter under a tree and started meditating. When several hours later the company came and saw him, the shadow of the tree had remained motionless in order to shelter him. When the time came to get married, the Bodhisattva had to choose between the hundreds of princesses offered by the princes of the Sakya dynasty. After having received the most invaluable gifts from the prince, one by one the princesses had to retreat, since they could not endure his majesty and radiance. At the end one princess came close to him, and looked upon him without closing her eyes. By that time, however, all the ornaments had been bestowed. So the Bodhisattva removed the splendid ring he wore from his finger and offered it to princess Gopa. This act at the same time indicated that the choice was made.

Princess Gopa's father was not very pleased with the way in which his daughter had been chosen. He wanted the bridegroom to show the proficiency in the use of weapons proper to a member of a *ksatria* (ruling caste). The Bodhisattva immediately declared his readiness for any kind of competition.

In the meantime the city was stirred up by prince Dewadatta, whose jealousy took the form of killing the Bodhisattva's elephant with one blow of his bare hand. Prince Siddhartha, while passing on his way to the competition, seized the tail of the elephant with his foot and hurled the big carcass over the walls and across the ditches outside the city.

The competition was in arithmetic and skill in using the bow and arrow. The Bodhisattva excelled in both. He even broke all the bows presented to him. Finally he took his grandfather's bow, which nobody else could even hold, and shot an arrow right through seven tree trunks.

After the wedding ceremony several gods visited the Bodhisattva, to convey their congratulations, but also to recall the holy task awaiting him.

King Suddhodana, fearing to lose the son who was intended to be his successor on the throne, had three palaces built for the crown prince to reside in during the three different seasons of the year. Each palace was a convincing demonstration of the pleasures and happiness possible in earthly life; but there was a special guard to prevent any effort by the prince to escape.

Four unexpected encounters nevertheless took place outside the palace. While out walking the prince successively beheld an old man, a sick man, a dead man, and a monk. The first three encounters made the Bodhisattva aware of the sufferings inevitable in earthly existence; the sight of a monk disclosed the way to ultimate salvation. From then on he was determined to renounce this earthly life.

All the efforts of King Suddhodana to persuade the prince to stay in the royal palaces were in vain. And one night he left the palace grounds to start a completely new life.

Escorted and assisted by the gods, who drew the prince's horse on with their hands, the Bodhisattva had passed many countries when the red of morning coloured the skies. He took leave of the escorting gods, and said farewell to his groom and his beloved horse. He then cut off his hair, threw away his princely clothes, and put on the garment of a monk. From then on he no longer was Prince Siddhartha. He had become Sakyamuni (monk of the Sakya dynasty).

Wandering from one place to another the Bodhisattva visited hermitages and saw Brahman seers, but nobody could satisfy him. Even the great Arada Kalapa of Vaisali failed to show him the proper way to salvation. One day he arrived at Rajagriha, capital of the kingdom of Magadha. People welcomed him abundantly and paid homage. So did the king, Bimbisara. The Bodhisattva, however, could not stay in the city. He proceeded to the hermitage of the great Rudraka. Here he found five fellow-disciples who agreed to join him in his search for salvation. The company left for the Gaya hill on the banks of the river Nairanjana, to deliver themselves to penance and meditation.

The Bodhisattva was so constant in his penance that his mother descended

from heaven to persuade him to take food. She feared her son might starve to death without attaining enlightenment. The gods were also alarmed, and requested him at least to absorb nourishment through the pores of his skin. Finally, after six successive years of fasting he realized that he was not on the right way. He stopped fasting, and took food presented by the ten daughters of the village-head of Uruvilva. His five friends were very much displeased, lost their faith in him, and abandoned him.

After having decided to stop mortifying himself physically the Bodhisattva was about to move to another place when he noticed that his clothes were no longer appropriate. In a nearby graveyard he luckily came across some old cloth, once used for the burial of a slave. He washed it and put it on. At that very moment a god appeared in his presence, and offered him a monk's garment.

By way of farewell to the Bodhisattva one of the daughters of the village head of Uruvilva, Sujata, prepared some rice and milk which she served in a golden bowl. Before having his meal, the Bodhisattva took a bath in the river Nairanjana. Being fresh again he accepted a seat presented by a *miga* maiden, and enjoyed the milk-rice porridge.

From the banks of the Nairanjana river the Bodhisattva proceeded to Bodhimanda, where he was to attain enlightenment. Seated on a bundle of grass presented by a villager, he received the god Brahma and the *naga* king Kalika who came and rendered homage. Meanwhile 80,000 bodhi-trees were decorated by the gods. Under each tree the Bodhisattva was seen seated, but actually he had chosen one which was destined to become his peculiar bodhi-tree. Seated cross-legged and facing East he prepared himself to attain the Buddhahood through meditation.

Mara, the Evil One, could not bear the thought of the Bodhisattva becoming Buddha. He recruited a very large army of monsters and demons to attack the Bodhisattva, and hence to frustrate and defeat the final stages towards enlightenment. However, Mara failed. Arrows and other weapons hurled at the Bodhisattva turned into flowers, falling as a rain on his lap.

Mara did not despair. He sent his beautiful daughters to seduce the Bodhisattva with lustful and female allurements, but without success. The Bodhisattva remained unshakable. He finally addressed the Evil One by saying that Mara had gained his realm of desires by one single sacrifice only, whereas the Bodhisattva had sacrificed himself many millions of times. When Mara tried to refute this statement by arguing that there was no witness who could give evidence, the Bodhisattva responded by touching the earth with his right hand. Immediately the Goddess of Earth emerged, and confirmed every word spoken by the Bodhisattva. Mara was totally defeated.

The Bodhisattva now attained the Highest Wisdom, leading to the Ultimate Salvation. He had become 'Buddha', i.e. the Enlightened One.

The Enlightenment took place in three successive stages. During the first

part of the night the Bodhisattva beheld the cycle of birth and death, in which good deeds, good words, and good thoughts led to heaven, while their evil counterparts paved the way to hell. During the second part of the night he observed his own former lives, and the reincarnations of others. During the third part of the night he perceived the sufferings caused by birth and old age, and by death and rebirth. The way to stop the sufferings was also unfolded: the Eightfold Path, and the principle that good conduct in life leads to the extinction of desire.

For the first week after the enlightenment the Buddha remained seated in deepest meditation under the bodhi-tree. He was honoured by nymphs, and bathed with perfumed water by gods. In the second week he made a long journey through thousands of worlds. In the third week he made a short journey, from the eastern to the western seas. After each of these journeys he returned to the bodhi-tree.

In the fifth week the Buddha enjoyed the hospitality of the Naga King Muchilinda. Because of the bad weather the snake king wrapped the Buddha with seven windings of his body, and sheltered him with the hood of his cobra-head.

After the seventh week the god Brahma became worried. He feared that the Buddha was forgetting his plan to reveal the Wisdom he had gained. Accompanied by the god Sakra Brahma persuaded to give his special attention to the suffering world. The compassionate Buddha was moved, and agreed to announce his doctrine soon.

The Buddha deliberated as to whom he would first reveal the Wisdom. Since his former outstanding teachers, Rudraka and Arada Kalapa, had died, he decided to call on the five ascetics with whom he had made penance at Uruvilva. He travelled through Magadha, and reached the Ganges river where he had to cross by ferry. Since he could not pay the fare, he flew across the river and arrived at Benares. He proceeded to the Deer Park at the outskirts of the city, where his former five friends had stayed. The five ascetics were reluctant to see their unfaithful colleague. However, the nearer the Buddha approached them the more they became uneasy. At last they could not endure Buddha's radiance. They fell on their knees, paid homage, and declared themselves his disciples.

Tens of thousands of bodhisattvas from the ten points of the compass, and all the gods from the thousands of worlds came and prostrated themselves before Buddha's feet, asking the Lord to start proclaiming the long-expected doctrine.

In the first part of the night the Buddha remained silent, in the second part had a stimulating dialogue, and in the third part he unfolded the path to be followed to attain salvation.

The first sermon is symbolically expressed as the Turning of the Wheel of the Law. Indeed, the Buddha's doctrine is called *dharma* which also means law, and it is symbolized by a wheel.

jatakas and avadanas

Jatakas are stories about the Buddha before he was born as Prince Siddhartha. They have for main theme the meritorious acts which distinguished the Bodhisattva from any other creature. The accumulation of virtue is the characteristic of the preparatory stages to the attainment of Buddhahood. The hundreds of times the Bodhisattva was born and reborn, either as an animal or in a human form, are related in hundreds of *Jatakas*, compiled in several anthologies. The most famous compilation is the *Jatakamala* (Garland of *Jatakas*), which is ascribed to the poet Aryasura (fourth century A.D.).

Avadanas are similar to *jatakas*, but the main figure is not the Bodhisattva himself, and the saintly deeds are attributed to other legendary persons. The stories are compiled in the *Divyavadana* (Glorious Heavenly Acts), and the *Avadanasataka* (The Hundred *Avadanas*).

Jatakas and *avadanas* are treated in one and the same series without any evident distinction in the reliefs of Chandi Borobudur. No particular system of alternation is evident. The lower row of reliefs on the wall of the first gallery, for instance, mostly depict *avadanas*. Some *jatakas* are included by way of variation. The system in its upper row of the series on the balustrade is quite different. The reliefs are practically all *jatakas*, with just a few *avadanas*.

The first 20 panels in the lower series on the wall on the first gallery depict the *Sudhanakumaravadana* (The Saintly Deeds of Prince Sudhanakumara), derived from the *Divyavadana*. The story starts with the rivalry of two kingdoms: the prosperous kingdom of North Panchala, and the poverty-stricken kingdom of South Panchala. The Southern king realized that North Panchala owed its prosperity to a *naga* called Janmachitraka, who was on friendly terms with his rival, and ensured regular rainfall. He therefore decided to invoke the aid of a powerful snake-charmer to move the *naga* to South Panchala.

The snake-charmer came, but was killed by the hunter Halaka to whom the *naga* had appealed for help. For his services the hunter was entertained by the *naga* family and presented with priceless jewels. A seer advised Halaka, however, to take instead the never-failing lasso which was in the possession of the *nagas*.

One day Halaka came across a large pond in the forest. From an ascetic he learned that the pond was the bathing place of the *kinnara* princess Manohara (*kinnara* = human bird). Curious to see the princess he lay in wait for her. As soon as Manohara approached the pond, she was 'caught by Halaka's lasso. Her escort were frightened, and flew away in despair.

Prince Sudhanakumara of North Panchala now appeared with his hunting party. The surprised Halaka had no alternative but to present his captive

to the prince, who immediately fell in love with the beautiful *kinnara*. Manohara was brought to North Panchala where after the wedding ceremonies, she lived most happily.

Prince Sudhanakumara designated a brahman as his future court-chaplain, to the great annoyance of his father's officiating high priest, who saw his future thus vanish into smoke. When a dangerous rebellion broke out, the king was persuaded to send his son on a military expedition.

The crown prince requested his mother to take care of Manohara, and marched out. Unexpectedly he enjoyed the fullest support from the king of the *Yaksas* (good-natured demons), who joined the expedition with his enormous army.

Meanwhile an unpleasant dream of the king was interpreted by the malignant high priest to be ominous; according to him, the danger could be averted only by sacrificing a *kinnara*. Though grievously upset at having to do so, the king finally consented to sacrifice Manohara.

Assisted by her mother-in-law, the *kinnara* princess succeeded in escaping. Flying through the air she left North Panchala to return to her own father's palace.

As soon as Prince Sudhanakumara had reported on the results of his mission to his father, he hastened to his beloved Manohara. His mother told him what happened during his absence, and agreed with her son's decision to go and find his wife and bring her back.

The prince did not know where to start his search. He went first to see the hunter Halaka, who reminded him of the ascetic who lived near the pond. It turned out that the saint had a message from Manohara to inform the prince of the route to follow in order to reach the realm of the *kinnaras*.

After a long journey Sudhanakumara reached the outskirts of the capital of the *kinnara* kingdom. He met a company of *kinnaras* carrying water in jars, and was told they were bringing the water to bathe the king's daughter Manohara. By way of announcing his presence he dropped his ring into one of the jars.

King Druma, Manohara's father, was willing to welcome Prince Sudhanakumara provided he could prove his excellent qualities. The Prince convincingly demonstrated his excellence in archery, and then demonstrated his true love for Manohara by picking out his wife among a crowd of *kinnaras* who seemed identical with her.

After a most enjoyable sojourn in the kingdom of the *kinnaras*, Prince Sudhanakumara and Manohara were allowed to leave for the human world. In the kingdom of Panchala the young couple were warmly welcomed back, and soon the prince was crowned king in succession to his father.

King Sudhanakumara and Queen Manohara reigned over the Panchalas righteously. Their charity and virtue ensured the prosperity of the country. Richly gifts brought happiness to their subjects. And in many other ways, their good conduct in life found expression.

More convincing than the *Sudhanakumaravadana* with respect to the significance of virtue in the religious sense is the *Rudrayana*. It, too, is derived from the *Divyavadana* and it also is depicted in the same series in the first gallery (at the northern part of the west side of the monument).

Rudrayana was king of Roruka when Bimbisara ruled over Magadha and the Buddha stayed in Magadha's capital Rajagriha. Trade between the two kingdoms was extensive, and merchants travelled to and from.

Rudrayana made inquiries about Rajagriha and King Bimbisara. Pleased at the good qualities reported to him, he sent a letter and a box of precious stones to King Bimbisara by way of establishing closer relations. He soon received a favourable response and, with the letter, a box of invaluable clothes. He immediately dispatched in return his famous cuirass, which was set with priceless jewels. King Bimbisara was embarrassed, and asked the Buddha's counsel. He was advised to send a painting of the Buddha, and did so. In the accompanying letter he informed King Rudrayana that the present gift included the most exquisite thing to be found in the world.

Rudriyana made inquiries about the Buddha. As soon as he had obtained information he became absorbed in the painting and the annotations, and entered into the most profound meditation. He attained the degree of *srotapanna* (one of the stages of perfection).

Rudrayana wanted a Buddhist priest at his court, and on the advice of the Buddha himself, Bimbisara sent Mahakatyayana to Roruka. His preaching at the court aroused a desire in the ladies as well to attend the teachings and, for this particular purpose, Bimbisara sent the nun Saila.

Queen Chandraprabha was so impressed by the Buddha's doctrine that when her death was approaching she decided to become a nun, hoping to be reborn as a goddess. Indeed, after her death, she appeared as a goddess before the king, and persuaded her consort to follow her example.

King Rudrayana decided to renounce earthly life, entrusted his throne to his son, Sikandin, and left for Rajagriha to be ordained priest by the Buddha himself.

Skandin proved to be a bad ruler and a cruel despot. He oppressed the people, and stopped providing sustenance to monks and nuns. Hearing about his son's misbehaviour, the monk Rudrayana made ready to leave for Roruka, hoping to bring Sikandin back to the right path. The king, however, misinterpreted his father's well-meant intentions, and had him killed. King Sikandin was also very angry with the monk Mahakatyayana, and had him buried in sand. The monk was luckily saved by herdsmen, and predicted that Roruka and the evil king would soon perish.

During six successive days rains of precious stones fell on the city of Roruka, but on the seventh day a tremendous rain of sand buried everything. And this was the end of the wicked king and his evil subjects.

The first 135 panels in the upper series on the first gallery balustrade are

devoted to the 34 legends of the *Jatakamala*. The remaining 237 panels depict stories from other sources, as do also the lower series and those on the balustrade of the second gallery. These stories are not all *jatakas*, but also include several *avadanas*. It is noteworthy that some *jatakas* are depicted twice, though not in the same series. The story of King Sibhi, for instance, is shown on both the main wall and the balustrade of the first gallery.

The *jatakas* are not arranged chronologically from the Bodhisattva's reincarnation as an animal to his rebirth in heaven, and neither are the reliefs.

Once the Bodhisattva was born as a quail. Contrary to the other quails he was mindful of the doctrine and refused to feed on living beings, but ate only vegetables. Consequently he remained small and weak. One day a fire broke out in the forest. Every creature hurried away for self-preservation. Only the Bodhisattva remained calm and quiet in his nest. When the fire approached him, he addressed Agni, the God of Fire, and pointed out that the lust for power should be subdued by the power of truth. Immediately the fire stopped and went out, in spite of the strong wind and the dry grass. The forest and all its inhabitants were saved.

Another time the Bodhisattva was born as a hare. His closest friends were an otter, a jackal and a monkey. He continuously urged his friends to strive for right conduct and to be generous in their daily life. Wanting to put the hare to the test, the God Sakra appeared in the forest in the shape of a Brahman who had lost his way and was starving. The four friends rushed to the brahman and rendered help. The otter brought seven fishes, the jackal a lizard, and the monkey ripe fruits. The hare, however, could not offer anything. The brahman lighted a fire for an offering, and immediately the hare jumped into the fire, offering itself as a sacrificial animal. The king of the gods admired the saintly deed, and while resuming his own shape he praised the hare for his self-sacrifice.

A striking example of self-sacrifice was shown by the Bodhisattva when he was born as a giant tortoise. One day five hundred merchants were shipwrecked, and fought desperately against the waves. The Bodhisattva appeared, took the five hundred men on his back, and brought them safely to the shore. The tortoise was exhausted, and fell asleep. The merchants, tormented by hunger, decided to kill the tortoise and feed on its flesh. The Bodhisattva woke up, and when he understood what was going on, he took pity on the starving merchants. He offered them his body to feed on, and thus the unlucky people were saved.

Another example of unselfishness was demonstrated by the Bodhisattva when he was born as King Sibhi. One day he was holding an audience when a pigeon flew into the throne-hall and approached the king with a request for protection from a falcon hunt. The king immediately consented, but at

the same time the falcon laid claim to his prey. Thereupon the king offered his own flesh in exchange for the pigeon. The falcon agreed, on condition that the king's flesh allowed should be of equal weight with that of the pigeon's. A pair of scales was produced. King Sibhi cut off a lump of flesh from his thigh. It proved, however, that the pigeon was heavier, and more flesh was cut off from the king's body. Nevertheless the scale did not turn until no flesh was left any longer.

As King Surupa the Bodhisattva ruled over his subjects righteously and virtuously, so that prosperity and happiness extended to every aspect of life. The king himself, however, was not satisfied. He fervently wanted to be informed about the Doctrine, but could not be learned in this world until the Buddha had descended. King Surupa was so discouraged that he began to pine away. The God Sakra wanted to put King Surupa to the test. He appeared before the king in the shape of a giant, and declared his willingness and ability to unfold the Doctrine, on condition that he should be nourished with any human flesh and blood he chose. The king was so happy at the idea of being able to hear the Doctrine that he immediately agreed. When it turned out that the first victim was to be the crown prince, his only son, the king hesitated. At the pressing request of the prince himself, however, he consented. And, before the king and the dignitaries the giant tore the prince's body to pieces, devoured them, and drank the blood. Still not satisfied, the monster asked for the queen's body. And when this request was granted and the queen was devoured, the giant remained unsatisfied. So he asked for the body of the king himself. King Surupa did not comply immediately; he first wanted to know how he could hear the Doctrine after he had been eaten up. He therefore asked to be informed about the Doctrine first, whereupon he would be ready to be killed. The giant agreed, put the king on his oath, and unfolded the Doctrine. The king was extremely happy and fully satisfied, and surrendered his body to the monster. The God Sakra was moved, resumed his own shape, and brought back the crown prince and the queen safe and sound to the king, while predicting that King Surupa would soon attain to the Highest Perfect Wisdom.

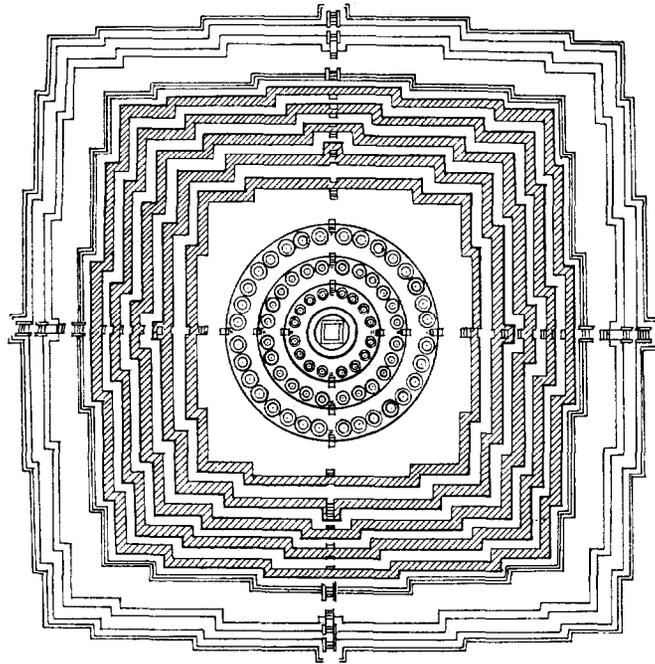
The Bodhisattva was also born in heaven several times, and once even as king of the gods. Nevertheless he did not lose sight of his sublime task, always remembering the ultimate aim of becoming a Buddha. His final existence before descending to earth as Prince Siddhartha was spent in the Tushita heaven, the highest heaven in Buddhism.

Gandavyuha

The series of reliefs covering the wall of the second gallery is devoted to Sudhana's tireless wanderings in search of the Highest Perfect Wisdom. The story is continued on the walls and the balustrades of the third and

**CHANDY BOROBUDUR
GROUNDPLAN**

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2. Ground-plan of Chandi Borobudur.

fourth galleries. Its depiction in most of the 460 panels is based on the holy *Mahayayana* text *Gandavyuha*, the concluding scenes being derived from another text, the *Bhadrucari*.

The principal figure of the story, the youth Sudhana, son of an extremely rich merchant, does not appear until the sixteenth panel of the series on the wall of the second gallery. The preceding fifteen reliefs form a prologue to the story of the miracles produced by the Buddha's *samadhi* (deepest meditation) on the occasion of an assembly of a hundred disciples in the Garden of Jeta at Sravasti. The disciples surrounding the meditating Buddha are unable to see the miracles which occur right in front of their eyes, but the Bodhisattva Samantabhadra explains the nature of the Buddha's *samadhi*.

At the end of the demonstration of miracles the Bodhisattva Manjusri bids farewell to the Buddha, and sets out for the South, followed by a host of Bodhisattvas and thousands of monks. Upon his arrival at the sanctuary of Vichitrasaladhvaya the people of the town rush out in large numbers to hear the Bodhisattva describe the wonderful deeds performed by the Buddha. On this occasion Manjusri singles out the youth Sudhana who proves to be the one ready to receive instruction in the Supreme Knowledge.

The encounter with the Bodhisattva Manjusri means that it is time for Sudhana to start on his wanderings, and from now on Sudhana is sent from one teacher to another. Each time he visits the person appointed by the previous teacher, he receives new instructions and obtains new answers to his queries, and has to meditate on his newly-acquired knowledge before he proceeds further.

Sudhana visits no less than thirty teachers, but none of them can satisfy him completely: each is limited to his or her special knowledge of the Doctrine. Instructed by Manjusri, Sudhana goes to Mount Sugriva to see the monk Megasri. After greeting the sage respectfully, Sudhana asks to be instructed in the conduct of the Bodhisattva. The monk tells him how he has visited the Buddhas of all lands and of all schools, how he continually pays homage to them, and how he can visualize an infinite number of them. After the necessary explanations he sends Sudhana on to another sage, Sagaramegha. Sudhana studies under Sagaramegha. The sage tells him of a miracle that he experienced after spending twelve years in meditation. A huge lotus flower rose from the sea, surrounded and supported by a host of heavenly beings. Upon that lotus the Buddha was seated. The monk paid homage, and for twelve hundred years he received the Buddha's instruction which he now transmits to Sudhana.

The next sage Sudhana meets is Supratisthita, who gives his instruction from mid-air, since Sudhana finds him walking in the air amid a host of gods and heavenly beings. Sudhana is further referred to the physician Megha at Vajrapura.

The physician-sage Megha was explaining the Doctrine to a crowd of ten

thousand men when Sudhana appeared before his seat. Upon hearing that Sudhana has evoked the Spirit of Supreme Knowledge, the sage pays homage to Sudhana. Then follows the interview, after which the sage refers the hero to a banker Mukataka.

Responding to Sudhana's questions, the sage Mukataka starts meditating. His body becomes translucent and shows innumerable Buddhas from all over the world.

Somewhat similar is Sudhana's next experience, when he visits the monk Saradhvaja. This time the apparition of countless heavenly beings, including Buddhas and Bodhisattvas, does not appear on his motionless body but comes out of it.

Sudhana now meets the first female sage, the *upasika* Asa, wife of King Suprabha, who has renounced earthly pleasures to spend her life in solitude in the forest. When Sudhana asks her when in the past she evoked the Spirit of Supreme Enlightenment, she tells him how she paid homage to all the Buddhas of the past, and how she has accumulated the merits of her previous births.

The following sage Sudhana meets is the seer Bhismottaranirghosa, who is clad in bark-cloth and a deer hide, seated on a bundle of straw, and surrounded by a thousand other seers. Complying with Sudhana's request the sage performs a miracle by introducing the young wanderer to the Buddhas of all the worlds in the Ten Quarters of the Universe.

Sudhana proceeds onwards and sees the Brahman Jayosmayatana, whom he finds practising asceticism on the Sword Mountain, immersed in flames on all sides. He is then told that in order to purify his conduct he must climb the Sword Mountain and fling himself into the flames. He does so, and immediately obtains *samadhi* in mid-air.

Once again purified, Sudhana now proceeds to the palace of King Singhaketu, where he sees the Princess Maitrayani, who is unfolding the Dharma to a crowd.

The next teacher of Sudhana is the monk Sudarsana. Standing on a lotus flower which is held up by heavenly beings, the sage explains to Sudhana how he has paid homage to all the Buddhas of all the worlds, seeing their lives unfold from birth to *parinirvana*, and how he can relive these experiences in a moment's thought.

The next *kalyanamitra* (spiritual guide) is a boy, called Indriyesvara, whom Sudhana finds playing in the sand on the bank of a river with thousands of his friends. It turns out that the boy has attained to quite a high degree of enlightenment, thanks to the teachings he has received from the Bodhisattva Manjusri himself.

Sudhana proceeds to his second female teacher, Prabhuta. In contrast to the splendour of her residence, the *upasika* is clad in simple white without any jewellery. In front of her stands a magic bowl which enables her to satisfy hunger and thirst, and the wishes of all living beings.

Paying a visit to the banker Ratnachuda, Sudhana is shown the ten storeys of the magnificent residence. In each storey are kept different things, beginning with food and drink in the first, clothes in the second, and ending with Bodhisattvas and Buddhas in the highest storeys. Ratnachuda's present state is the result of merits accumulated in former lives.

Sudhana's next spiritual guide is King Anala, who demonstrates, not miracles, but horror. The most cruel torments are shown. At the command of the king a large number of his subjects are severely punished. Some are beheaded, others see their own hands and feet cut off, culprits are boiled or thrown into a fire. Sudhana is disgusted at these inhuman scenes, and is about to turn away when a *deva* persuades him to stay and ask King Anala for instruction in the conduct of the Bodhisattva. The king leads Sudhana into the palace, shows him its great splendour, and explains to his guest that his harsh treatment of his guilty subjects is meant to make them follow the example of the Bodhisattvas and not risk falling into sin.

King Anala's exposition of the Law by means of a demonstration of cruelty is the only instruction of the kind Sudhana receives from his *kalyanamitras*. The further wanderings of the pilgrim bring him to a succession of teachers whose instruction follows the same pattern: miracles produced by *samadhi*, the attainment of illumination by paying a continual homage to the Buddhas, and the achievement of an exceptional position through the accumulation of merits during previous incarnations.

It is surprising to find Sudhana's encounter with the overlord of the Hindu pantheon, the god Siva Mahadeva, who is easy to recognize since he is always depicted with his main attributes the rosary and the fly whisk. It is also interesting to note that Sudhana is once directed to Kapilavastu, the birth-place of the historical Buddha, to see the Eight Night Goddesses for instruction. Thereafter Sudhana is referred to the goddess of the Lumbini-park, who describes at great length the miracles which occurred at the moment of the birth of Prince Siddhartha.

Sudhana also visits Maya, the queen who gave birth to Prince Siddhartha and who now resides on a gigantic lotus which rises into the sky. She recited the names of the Buddhas to whom she gave birth in previous incarnations.

Sudhana's encounter with the Bodhisattva Maitreya, who is destined to become the human Buddha of the future, marks the end of his wanderings, as depicted along the second gallery of Chandi Borobudur.

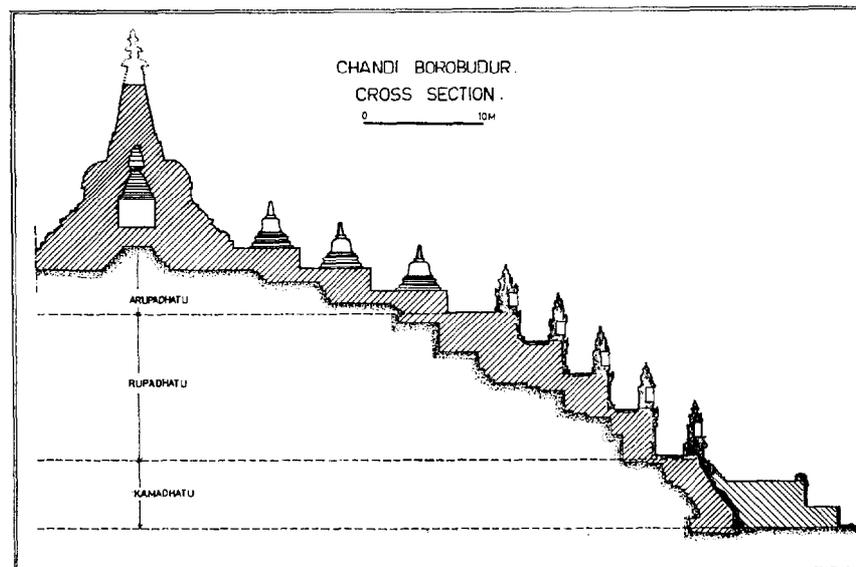
Maitreya resides at the *kutagara* (towering palace) of Mahavyuha in the country of Samudrakatiha. Once he has instructed Sudhana he does not send him away, but invites him into the wonderful palace. Maitreya snaps his fingers, and the doors of the *kutagara* open. Sudhana enters a world of unequalled splendour. He admires the wonders of the celestial realm and the virtuous properties of the Bodhisattva (along the third gallery of Chandi Borobudur), and witnesses the countless miracles performed by Maitreya.

Sudhana is deeply impressed, and cannot realize what he is actually experiencing until Maitreya enters the *kutagara* and breaks the spell by snapping his fingers once again. He then receives the final instructions from the Bodhisattva, whereupon he is sent to the Bodhisattva Manjusri.

After a brief meeting with Manjusri, Sudhana proceeds to the residence of the Bodhisattva Samantabhadra (fourth gallery of Chandi Borobudur). The entire series of reliefs is now devoted to the teachings of Samantabhadra, who touches Sudhana's head to impart the final *samadhi*. The narrative gets lost in another profusion of miracles and apparitions, centred upon celestial Buddhas and Bodhisattvas, but ends with the Sudhana's achievement of the Supreme Knowledge and the Ultimate Truth.

4. The Buddha statues

Apart from its abundance of narrative reliefs and ornamental carvings, Chandi Borobudur is exceptionally rich in splendid stone statues, all depicting *Dhyani* Buddhas. They are to be found in the *rupadhatu* and in the *arūpadhātu*, seated crosslegged on lotus cushions and facing outwards.



3. Cross-section of Chandi Borobudur.

The Buddha statues of the *rupadhatu* are placed in niches, which are arranged in rows on the outer sides of the balustrades. As the terraces progressively diminish in size, the first balustrades have 104 niches, the second also 104, the third 88, the fourth 72, and the fifth 64, so that there were originally 432 statues.

The statues of the *arupadhatu* are placed in perforated stupas, which are themselves arranged in three concentric circles. The first circular terrace supports 32 domes, the second 24, the third 16, so that originally there were 72 *Dhyani* Buddha statues, out of sight but still partly visible in the stupas. Of the original total of 504 Buddha statues, over 300 are mutilated (mostly headless), and 43 are missing.

At first sight the Buddha statues seem all alike, but closer observation reveals evident differences, particularly in the *mudras* (position of the hands). The Buddhas at the first four balustrades have different *mudras*, each peculiar to one particular side of the monument. The statues facing East have the same *mudras*, and so have respectively the Buddhas facing South, West and North.

The Buddhas on the uppermost (fifth) balustrade all have the same *mudra*, regardless of the direction they face. This same *mudra* also characterizes the 72 statues on the three circular terraces.

In other words, the Borobudur statues show five kinds of *mudra*, corresponding to the five cardinal points of the compass (East, West, North, South, Zenith), and also to the *Mahayana* conception of the *five Dhyani* Buddhas. One point of the compass is ascribed to each *Dhyani* Buddha, and the distinction between the *Dhyani* Buddhas is indicated by the different *mudras*.

The five *mudras* are as follows:

1. *Bhumisparsa mudra*, meaning the hand position touching the earth. The open left hand rests on the lap, the right hand is placed on the right knee with the fingers pointing downwards. This *mudra* is associated with the moment when the Buddha called the Earth Goddess to witness while refuting Mara's impeachments. It is the *mudra* peculiar to the *Dhyani* Buddha Aksobhya, who resides in the Eastern Quarters.
2. *Abhaya mudra*, symbolizing the reassurance to refrain from fear. The open left hand is placed on the lap, the right hand is lifted up above the right thigh with the palm forward. This gesture is attributed to the *Dhyani* Buddha Amoghasiddhi, the Lord of the Northern Quarters.
3. *Dhyana mudra*, expressing meditation. Both hands are opened and placed on the lap, the right hand above the left hand, the thumbs touching. The *mudra* is ascribed to Amitabha, the *Dhyani* Buddha of the western Quarters.
4. *Vara mudra*, the *mudra* of charity. It resembles the *bhumisparsa mudra*, but the palm of the right hand is turned upwards while the fingers rest on the right knee. This *mudra* denotes that the *Dhyani* Buddha is Ratnasambhva of the Southern Quarters.
5. *Dharmachakra mudra*, symbolizing the turning of the Wheel of the Law. Both hands are held before the breast, the left hand below the right. The left hand is turned upwards with the ring finger touching the thumb,

while the ring finger of the right hand touches the little finger of the left. The position suggests the turning of a wheel. This *mudra* is attributed to the *Dhyani* Buddha of the Zenith, Vairochana.

Applying this information to the statues of Chandi Borobudur, the Buddhas at the East side are identified as Aksobhyas, while those at the North, West and South sides are Amoghasiddhis, Amitabhas and Ratnasambhavas respectively. This holds true in respect of the statues of the first four balustrades. Those of the fifth balustrade, all having the same *mudras*, are identified as Vairochanas, and similarly those in the stupas on the circular terraces.

The *rupadhatu* is 'guarded' by 92 Aksobhyas at the East, 92 Amoghasiddhis at the North, 92 Amitabhas at the West, and 92 Ratnasambhavas at the South (26 at the first, 26 at the second, 22 at the third, and 22 at the fourth balustrade). The *arupadhatu* has its square base enclosed by 64 Vairochanas in the niches of the fifth balustrade, and its circular terraces are occupied by 72 other Vairochanas.

The fact that the *Dhyani* Buddhas in the open niches of the balustrades are entirely visible, whereas those in the stupas of the circular terraces are partly disclosed suggests a sequence mounting to a climax which is reached when there is only one more *Dhyani* Buddha, completely invisible.

The five different *Dhyani* Buddhas are emanations of the *Adi* Buddha (the Supreme or Primeval Buddha), who generally is not represented in any tangible form. Consequently the single replacement of an image by a stupa, which is after all the symbol par excellence of Buddhism, is wholly reasonable. Moreover, this is no common stupa, but a huge one, crowning the entire monument and its surroundings.

Nevertheless, it is conceivable that, in view of the presence of the five *Dhyani* Buddhas, a representation of the *Adi* Buddha was thought necessary for Chandi Borobudur. In that case, there should be a statue inside the big dome.

The main stupa does in fact have an inner space, big enough to accommodate a statue as large as those of the *Dhyani* Buddhas. However, there is much confusion regarding the location of the statue reportedly found in the middle of the nineteenth century, which was first mentioned in 1853 although, if it existed, should surely have been noted during Hartman's visit in 1842.

Since the rediscovery of Chandi Borobudur it was found that a big hole in the eastern wall of the main stupa allowed easy entry into its interior. The investigations of Cornelius, who was involved in the first clean-up of the monument as early as 1814, did not neglect the inside of the dome but none of his reports mentions the presence of a statue in it; neither did any of the other investigators between then and 1842.

Hartman himself did not write any report on his activities at Chandi Borobudur. The story about the statue told in connection with his visit in 1842

was apparently obtained from the villagers and it was in circulation for over ten years before being taken up in an account written in 1853.

The statue in question is now located under the canary trees to the north-west of the monument. It was taken out of the main stupa when the monument was restored in the beginning of the present century, and was not put back there simply because of the lack of any convincing evidence to show where it really belonged.

On close observation, this statue proves to have several imperfections. The facial expression is ugly, one arm is shorter than the other, the fingers are not complete, and the pleats of the cloth are carelessly carved. The statue is in fact unfinished. In view of the supreme quality of all the other statues it is hard to believe that such imperfections could have been tolerated if the statue was indeed meant to depict the Highest Buddha of Chandi Borobudur. It is more plausible to assume that this particular statue was one that was rejected and, for that reason, left unfinished.

5. The symbolical meaning

The exceptional design of Chandi Borobudur has led to much speculation about its meaning. The denomination *chandi* itself suggests one interpretation, but then the obvious differences in shape and appearance demand explanation.

Raffles derived his interpretation from the popular belief that chandis were royal tombs, enshrining the ashes of the burnt corpses of kings. This assumption later acquired wide acceptance among both laymen and scholars, but has recently been challenged. The new theory is that chandis were temples, related to the dead only in the sense that many of them are known to have been dedicated to deified kings who were famed for virtue during their life times.

Chandi Borobudur does not fit in easily with either of these interpretations. Not the slightest evidence has ever been found of its use as a tomb. Some tombs were discovered on the north-eastern slope of Borobudur hill and - on the analogy of Chandi Kalasan - Borobudur tombs, if there were any, should be located around the monument rather than within the chandi itself. Chandi Borobudur never seems to have been intended as a temple either, lacking as it does an accessible inner space, or a statue of the deity, before which pilgrims could worship.

On the other hand, Chandi Borobudur symbolism fits in very well with the symbolical meaning of a chandi. The three superimposed spheres of *kanadhatu*, *rupadhatu* and *arupadhatu* accord perfectly with the vertical sections of any other chandi depicting *bhurloka* (earth), *bhuvvarloka* (atmosphere) and *svarloka* (heaven). In other words, Chandi Borobudur, like all chandis, symbolizes the Cosmic Mountain, which is in turn the symbol par excellence of the Universe.

However, there is one fundamental objection to this interpretation. The Cosmic Mountain concept is purely Hindu and alien to Buddhism. Or, perhaps it can be said more correctly, the Buddhist cosmology ascribes no obvious significance to it.

Hence, the general assumption that Chandi Borobudur is a stupa.

The Lord Buddha is said to have once instructed his disciples to burn his corpse after that he had entered *nirvana*, and to deposit the ashes in a stupa. When asked what a stupa was, the Master folded his garments on the ground, put his beggar's bowl upside down on it, and stood his staff over the bowl. This instruction resulted in the constructions, which usually consist of a square base, a semi-circular dome and a pinnacle.

The oldest stupas, however, had no base. A solid dome-like structure was erected right on the ground, enclosed by a railing and surmounted by an umbrella. Only later was the square base added, with the support distinguished from the actual monument. The umbrella was replaced by a permanent pinnacle. Further development introduced other modifications. For example, the base was multiplied, and thus converted into a truncated stepped pyramid. Sometimes the dome was drawn out, losing the original hemispherical shape. Again, smaller stupas on the base were arranged around the main stupa. A combination of those modifications might be found in one single stupa.

In Chandi Borobudur, it would seem that a combination of modifications to the original stupa form has created the present shape. If so, the big stupa would be the main item, and the circular platform and square terraces would represent a kind of doubled base.

The main objection to this theory is the structural disproportion which seems inconsistent with an achievement of quality otherwise so supreme. To accept the assumption that it is the big stupa which constitutes the monument would mean agreeing that the extraordinarily impressive supporting mass is of secondary importance only. And this is as inconceivable as the idea of a design that allows the main feature and purpose to be completely overwhelmed by the ancillary embellishments.

Perhaps H. Parmentier, the French architect-archaeologist, had some of these considerations in mind when he advanced the hypothesis that the ancient builders had originally intended to construct a single dome of formidable size on a multiple base of mounting square terraces, but that unexpected saggings and slidings of the walls of the lower structure had forced them to change the upper design completely; hence the compromise of making a much smaller dome, surrounded by three circular sets of yet smaller stupas. And this modified design, he suggests, gave Chandi Borobudur its present form.

Quite a different approach was taken by A. Hoenig, the German architect, who rejected the stupa idea entirely. He suggested that Chandi Borobudur was intended as a stepped pyramid of nine storeys, with an ordinary temple

building on its top platform. He apparently had the Cambodian pyramidal temples in mind, but this theory does not take sufficient account of the peculiarities of Chandi Borobudur.

Regarded objectively, Chandi Borobudur consists of a stepped pyramid which is surmounted by a stupa. Neither pyramid nor stupa predominates. Both have been merged in a single entity. Consequently, in seeking the symbolical meaning of the monument, it cannot be considered either as a pyramid alone or as a stupa alone. In this respect J.G. de Casparis found the most satisfactory explanation when he recognized the compound '*Bhumisambharabudhara*' from the inscription of 842 A. D. as the original name of Chandi Borobudur.

This complicated word, from which the name 'Borobudur' derives, serves to explain the significance of the monument and to name its founders as well. As technical term in *Mahayana* Buddhism the compound means: 'The mountain of the accumulation of virtue on the ten stages of the Bodhisattva'. It can also be interpreted in architectural terms as 'The mountain which is terraced in successive stages' or, in a more general sense, as the king(s) of the accumulation of earth', i.e. the Sailendra dynasty (*saila indra* = king of the mountains).

Such ambiguity in a technical term is quite common in the Sailendra charters. In arriving at his interpretation, De Casparis had to assume that Sailendra Buddhism could be understood in terms of ancestor worship. The idea of the Cosmic Mountain is not a significant concept in Buddhism, but the idea of a terraced mountain is obviously contained in the original name of Chandi Borobudur. And since, in the prehistoric cultures of Indonesia, a stepped pyramid is the particular symbol of the abode of the ancestors in the mountains, it can plausibly be argued that ancestor worship played a significant part in the designing of the monument.

Consequently, the symbolical meaning of Chandi Borobudur has a twofold origin, in *Mahayana* Buddhism, and ancestor worship. In this context, De Casparis considered the big stupa as the tenth storey. The ten mounting terraces of the structure then correspond to the ten successive stages the Bodhisattva has to achieve before attaining to Buddhahood; while nine kings of the Sailendra dynasty preceded the reigning king who had the monument built.

It is well-known from history that kings identified themselves with their divine patrons: Hindu kings with Siva or Visnu, and Buddhist kings with Bodhisattvas. The liberation from the cycle of birth and death constitutes the final goal in Hinduism (as it also was in the early evolution of Buddhism), but to the *Mahayana* Buddhist it is the start of the Path to be followed by the Bodhisattva. A Sailendra king had to do his utmost to pave the way for attaining to Buddhahood. He had to accumulate virtue as much as possible during his reign. He also had to glorify his predecessors, and one

of the most meritorious ways of doing so was to erect monuments dedicated both to his patron and to his forefathers.

In terms of ancestor worship a predecessor is assumed to have reached a higher stage of perfection than a successor. The most remote forefather, who founded the dynasty, is imagined to have attained to the ultimate perfection, and the other ancestors are ranked successively by order of seniority. This was apparently the underlying idea of the founder of Chandi Borobudur when he decided to create a monument that differed quite radically from the traditional design. And by a really fortunate coincidence, the reigning Sailendra king happened to be the tenth of the dynasty.

A stepped pyramid always consists of an odd number of terraces. Chandi Borobudur, however, has ten. The explanation may be that the designer of the monument had not only the indigenous tradition in mind but - perhaps even more - the **Mahayana** Path of the Bodhisattva.

The daring break with tradition is a further demonstration of the high esteem of the founder of Chandi Borobudur for the forefather whom he identified with the Buddha; and a stepped pyramid with a stupa on top was a most appropriate symbol to depict the virtue the dynasty had accumulated successively along the Path of the Bodhisattva.

Safeguarding Borobudur

1. Past efforts

Until the middle of the nineteenth century, concern for Chandi Borobudur was confined to amateurs. Investigations and excavations were mostly carried out because of someone's personal interest or an eagerness to know more about what was still kept hidden by the rubbish.

Government interest dates from 1849. Wilsen was sent to make accurate scale-drawings of the reliefs. A few years later Brumund was designated to prepare an extensive description of the monument.

This work was to be followed next by a monograph embodying all the details of Chandi Borobudur and the results of the various studies made. However, fierce criticisms of Wilsen's drawings, and Brumund's withdrawal from any further involvement, held up this programme. This proved a blessing in disguise, as more and more people meanwhile became interested. Various publications on Chandi Borobudur and on the reliefs drew attention to its significance as a Buddhist monument, and as an artistic expression in stone of the highest importance.

However, complaints were made about the Government's alleged failure to take the proper care of the monument, and the impatience about the proposed monograph gradually led to suggestions that measures be taken to safeguard the monument itself. Consequently, when the monograph finally appeared in 1873 it failed to arouse the enthusiasm it might earlier have enjoyed.

In the same year (1873), Van Kinsbergen, an excellent art photographer, was invited to photograph parts of the sculptures which were of exceptional quality. He had first to remove earth and shrubs before he could even start selecting vantage points for his equipment. Dilapidation over several decades had encouraged the very fast-growing tropical vegetation, and heavy rains through the years had loosened large amounts of earth behind the half-ruined walls. Moreover, the tax-exempted villagers who were supposed to watch over the monument had apparently neglected their duties.

In 1882 a proposal to demolish the monument and remove the reliefs to a museum was submitted to the Government. This was considered too radical. Instead, the Government appointed an archaeologist (Groeneveldt)

to make a thorough investigation on the site and assess the actual condition of the monument. The report was reassuring: there was no justification for the fears of pessimistic observers. The Government consequently dropped all plans for taking preventive measures.

Chandi Borobudur suddenly attracted attention again in 1885 when Yzerman, Chairman of the Archaeological Society in Yogyakarta, made the sensational discovery that the broad base enclosed the 'hidden foot' and the series of reliefs carved all around it. A photographic recording of the reliefs was made in 1890-1891, after which the 'foot' was covered again with the original stones of the encasement.

Yzerman's discovery finally led to a government decision to take up seriously the problem of physically safeguarding Chandi Borobudur, and a Commission of three was set up in 1900. Brandes, a brilliant art historian, was appointed Chairman. The other two members were Van Erp, an army engineer officer, and Van de Kamer, a construction engineer in the Department of Public Works.

Van de Kamer had earlier become known for his fantastic plan to shelter Chandi Borobudur from rain and sunshine by constructing a huge umbrella over it, made of galvanized iron plates and supported by 40 iron pillars, at an estimated cost of 135,000 Dutch guilders.

Van de Kamer's plan was the first proposal considered by the Commission. The other two members objected to the cost and to the effect the 'umbrella' would have on the appearance of the monument. The Commission then agreed (1902) to submit a threefold plan to the government. First, the immediate dangers should be averted by resetting the corners, removing stones that endangered adjacent parts, straightening the first balustrade, and restoring several archways, niches, stupas and the main dome. Secondly, the improvements so obtained should be consolidated by fencing off the courtyard, providing proper maintenance and, above all, by making the water drains really effective and restoring the floors and spouts. Thirdly, all loose stones should be removed, the monument cleared up to the first balustrade, disfiguring additions also removed, and the spire of the big dome should be restored. The cost was estimated at 48,800 Dutch guilders.

It was not until 1905 that the Government agreed to implement these recommendations. Meanwhile, Brandes had died rather suddenly (1904). As the technical aspects of the proposed measures were based mainly on Van Erp's researches and calculations *on* the spot, it was to him that the work was entrusted.

Van Erp started in August 1907. Seven months were spent in excavating the courtyard and the plateau, and making a selection of stones from the diggings and from the debris which were subsequently used in reconstructing damaged parts of the structure.

Encouraged by the progress made, which was promising, Van Erp submitted additional proposals to the Government. He had soon realized that much

more was feasible. He suggested restoring the balustrades, the lowermost terrace wall, the staircases, archways, niches and stupas. The Government agreed and made an additional 34,600 guilders available in 1910.

The original plan was mainly a holding operation - better drainage of rainwater, urgent repairs and partial restoration. Van Erp was now unable to get down to real reconstruction and an attempt to bring the monument back to its original condition. His success in dismantling and subsequently rebuilding the circular terraces and the perforated stupas, and the fifth balustrade, fully justified his approach to restoration problems.

Van Erp completed his work in 1911, and what had now emerged from the ruins compelled general admiration. But not everyone was satisfied. Some thought he had gone too far when he made bold to dismantle and rebuilt certain parts of the monument, others that he had not gone far enough and should not have left walls leaning and sagging. However, he had done his utmost, given the most serious consideration to both the technical and the aesthetic aspects, and resisted all temptations to produce fakes.

The attempted restoration of the spire of the big dome shows how admirably conscientious Van Erp was. From very scanty remains he succeeded in reconstructing the spire and its threefold umbrella. However, his professional conscience was dissatisfied with the results, the basis for which in any case remained conjectural. He felt that too many new stones had been used to replace the missing originals. His next step was, therefore, to pull down the greater part of the spire again once it has been recorded in photographs. There was also the problem of the leaning walls of the galleries. Van Erp knew that the square terraces constituted the solid body upon which the whole massive stone construction was dependent. Nevertheless, Van Erp did not settle with the position of the walls for practical as well as for more profound reasons. Once he had assured himself that the sagging and leaning of the walls did not preclude future upkeep of the structure, he thought it better not to interfere farther than was absolutely necessary with the character of the monument as it had survived through the centuries; he merely prescribed regular checks to verify the extent and degree of slanting.

Van Erp's veneration for Chandi Borobudur was partly what ensured the great success of his mission. It also led him to recommend proper photographic recording. At his special request, a separate budget of 10,000 guilders was set aside at the very start of the work, and pictures were taken before, during and after restoration. A complete record was also made of the reliefs, panel by panel.

This photographic documentation was of the greatest value in 1926 when it was decided to make a complete check-up of the monument. Regular measuring did not show changes in wall deviation, but close observation of the reliefs did reveal new cracks and deterioration. Some damage had obviously been caused by visitors, but it was difficult to say in other cases

whether the damage observed was due to vandalism or to natural causes. Hence the decision to study all the cracks and deterioration and compare them with what was shown in the photographs. It proved that vandalism was not the main source of damage, but weathering. The cracks were caused by the sudden changes of heat and cold as between day and night and the different effects of sunshine and rain. Stones splintered at the joints, particularly the delicate, protruding parts (e.g. the legs, arms, noses of figures), and these required detailed investigation, even though such damage is common in porous stone.

It really was discouraging to find that within a mere 16 years, 40 of the 120 *Lalitavistara* reliefs had suffered serious damage. The lower reliefs on the same wall were damaged in no less than 38 places. Similar damage was noted on the walls of the other terraces.

In 1929, the Government once again set up a Commission, this time to identify the causes of damage and suggest means of arresting further decay. The Commission completed the first part of its task within a year, but could not agree upon specific recommendations.

It distinguished three different categories of damage, caused by corrosion, mechanical forces, and tensions.

Corrosion was mainly to be ascribed to the inferior quality of most of the building materials, and to the percolation of water from the core of the monument. The growth of mosses on the stones and the harmful effects of ochre (used to bring out the design in photographing the reliefs) were contributing factors, but only because of the moisture on the stones - the basic problem.

Corrosion being a natural weathering process, the Commission could not agree on any specific measures to stop it. Chemicals might retard - but not completely arrest - deterioration, but here the destructive effects ochre had had must be borne in mind. Percolation might be eliminated by inserting horizontal watertight layers, but that would involve large-scale dismantling of the structure.

Some of the mechanical damages might be caused by visitors, but in most cases the real problem was the condition of the sculptures themselves. The reliefs had been carved without reference to the joints between the stones, so that small protruding parts of the sculptures could easily splinter off once the edges of the stone corroded. As nothing much could be done about this, the Commission could only recommend that the greatest care be taken when removing mosses and other micro-organisms from the stones. The slightest touch might be fatal to tiny, weakened sculptural details. Wilful destructions might also be lessened by limiting the number of visitors or permitting guided visits only.

The Commission found that damage by tensions was caused mainly by sagging and leaning walls. Recent movements had not been consistently observed, but changes in the water content of the core of the monument

caused by alternating dry and wet seasons would in any case tensions that affected the stones. Once the stability of a stone mass had been disturbed, the slightest movement could upset its balance.

Drawing attention once again to the urgent need of reducing, or preferably eliminating, the penetration of rain-water into the monument, the Commission recommended that horizontal and vertical deviations of the walls should be systematically checked by regular measurements.

The painstaking studies and the recommendation of the Commission were highly appreciated by the Government. However, the world-wide economic depression of the thirties meant the Archaeological Survey could not find the money to finance the measures suggested. And finally, the second world war absorbed the entire attention of the Government.

2. The present restoration project

Chandi Borobudur is for Indonesians today a tangible witness of their glorious past, and a spiritual beacon which fosters the self-confidence that will enable them to achieve their national aspirations. No wonder that, even during the struggle for independence immediately after the second world war, the monument continued to receive special attention. In 1948, while the fighting still continued in various parts of the country, two Indian archaeologists were invited to survey it.

The problem of safeguarding Chandi Borobudur became an international one as soon as the Republic of Indonesia was recognized (1950), and joined the United Nations and Unesco. The opportunity was seized to take advantage of the latest developments in technology and their application to archaeology, and of Unesco's ability to mobilize international skills and technical assistance on behalf of its Member States.

In 1955, the Government asked Unesco advise on the problem of counter-acting stone weathering in Indonesian monuments, and Chandi Borobudur in particular. The following year the late Professor Coremans, at that time Director of the Central Laboratory of Belgian Museums, came to Indonesia on a Unesco mission. He was unfortunately unable to stay long enough to produce definitive recommendations, although his conclusions regarding the causes of degradation were similar to those of the earlier investigations. More important than mere advice, however, was the Belgian grant following his mission, which enabled one of the staff of the Indonesian Archaeological Institute to attend a two-year training course in stone conservation at his laboratory in Brussels.

While the fullest attention was being paid to the deterioration of the reliefs and the percolation of water from the core of the monument, the regular measurements and levellings carried out in the beginning of 1959 revealed alarming irregularities. The actual differences (of a few millimetres only) seem insignificant, but since the slightest movement of a leaning wall might

be fatal, no deviation can be neglected. Moreover, while investigating these possibilities, it was found that no records were available regarding the bulging middle parts of the walls in question. Such deformations had never been included in the observations, either in the measurements or the levellings, so that the extent to which they might affect an unexpected sliding could not possibly be foreseen. The feat of a sudden mishap was increased in 1961, when two earthquakes took place within a month. Though only very slight, they displaced numerous stones in the leaning walls, and new cracks and fissures were observed.

In view of the unpredictable latent forces that were constantly endangering the monument the Archaeological Institute could hardly be expected to accept responsibility for its safety and, to avoid the possibility of being taken by surprise by a disaster, it drew the special attention of the Government to the problem and declared Chandi Borobudur to be in grave danger. It was nevertheless not until the second half of 1963 that an extra budget was made available.

In the meantime a bold plan of anastylosis was evolved: to dismantle and rebuild the square terraces, at the same time installing an appropriate drainage system behind the walls and under the floors. A reexamination of the earlier research and recommendations, and new investigations, indicated that there was no other alternative if the projected restoration was intended to be final.

Chandi Borobudur is so integrated, and deterioration was so widespread all over the monument that no partial restoration could effectively ensure its safeguard. Moreover, one restoration soon to be followed by another would harm rather than save the monument. And since the Indonesian people are determined to pass on the best of their cultural heritage to forthcoming generations, drastic but deliberate action was called for in the form of a gigantic project which will also in a way pay tribute to the great merits of what Van Erp accomplished.

Now that funds had been made available, the Archaeological Institute could start with the actual preparations, and drew up an extensive programme of research in order to amass as much information as possible.

Dismantling and rebuilding monuments had always been part of the routine work of the Institute, but the reconstruction of Chandi Borobudur demanded quite exceptional care.

The fact that it had been restored earlier meant that the Institute had to deal with a 'disturbed object' which needed bringing back its original state. Moreover, evident changes in design or execution that the original builders had permitted themselves, should be studied in the light of the history of its construction.

As Chandi Borobudur was not constructed on a flat base like other monuments, the present and future stability of its foundations demanded close consideration, involving studies in geology, soil mechanics, petrography and

related sciences. Indeed, the technical aspects of the project were obviously vital in working out the reconstruction designs.

Another check, not strictly either archaeological or technical, was also carried out. To study weathering of the stones, several parts of the northern balustrades were dismantled, leaving the reliefs fully exposed to sunshine, rain and wind. The results of more than one year's close observations were not very encouraging. Many parts of the leaning wall had become dryer than before, but seemingly new cracks had appeared. For the time being, the conclusion was that better drying did not in itself offer any advantage nor was it sufficient to arrest degradation.

The researches of various kinds were still inconclusive when all activities on the site had suddenly to be stopped because of political disturbances towards the end of 1965. And when peace and order were restored a few months later, the economic situation precluded the release of special funds for non-economic projects like the restoration of Chandi Borobudur.

However, the Archaeological Institute did not just wait. The engineering problems involved in the provisional reconstruction designs were carefully analysed, and much attention was paid to the possibility of applying modern technology and taking advantage of advanced studies and the skills acquired in other countries.

In 1967 the Government again asked Unesco for technical assistance, particularly in connection with Chandi Borobudur. A similar appeal was made at the twenty-seventh International Congress of Orientalists (Ann Arbor, Michigan, United States). The response was prompt; as from 1968, experts from several countries came in turn to carry out on-site studies, in close cooperation with the Archaeological Institute and the various governmental agencies involved.

Early in 1968 Unesco sent Dr. B. Ph. Groslier, Director of *Conservation d'Angkor* in Cambodia, and Dr. C. Voûte, a hydrogeologist from the International Institute for Aerial Surveys and Earth Sciences in the Netherlands. Both experts agreed with their Indonesian counterparts that Chandi Borobudur faced imminent destruction through collapse of the structure and disintegration of the building stones; that the only effective way of stopping infiltration and seepage was by making a complete reconstruction of the monument and introducing a properly-designed drainage system; and that surface treatment of the stone would not arrest the processes of decay but might, on the contrary, cause additional harm.

The international experts expressed their highest appreciation of the studies so far carried out by the Archaeological Institute, and suggested that, to reach definitive conclusions, it would be necessary to collect further detailed information on the technical and physical aspects of the project through systematic studies of the petrology, mineralogy, porosity and permeability of the building stones, the physico-chemical and biological processes of stone decay, and on the chemical composition of the rain-water and of the

run-off and seepage water. To make a systematic investigation of the effectiveness of various products for chemically treating the stones and evolve an appropriate system of treatment, a laboratory should be established on the site, together with a meteorological observation station for making micro-climatological measurements.

Finally, the mission proposed that the further execution of the project should be entrusted to the Indonesians themselves, so that Unesco's assistance would comprise fundraising, the supply of equipment and material, and missions of technical advisers.

In 1969 Miss Dr. G. Hyvert, a French biochemist and expert in stone conservation, arrived on the site to survey the physical condition of the stones, and to set up a programme of micro-biological studies and experiments in stone treatment. Simultaneously two Dutch civil engineering experts from 'Nedeco' (Netherlands Engineering Consultants) made thorough studies with a view to the technical implementation of the projected reconstruction. In 1970 two experts from Malta and the United States made a feasibility study of tourist development prospects in Central Java and Bali. With respect to Chandi Borobudur they proposed that the restoration project should include landscaping, and that an area within a radius of 200 m should be kept free of any building activity, in order to ensure that the monument could always be seen in its proper natural setting.

The various researches of the experts sent by Unesco or under bilateral aid programmes did much to complete the earlier studies carried out by the Archaeological Institute and its technical advisors. Nevertheless, it was still deemed necessary to convene an international panel to decide upon the actual steps to be taken, and to discuss the technical and financial aspects. The international panel, which met in January 1971 in Yogyakarta, was attended by representatives of the Unesco Secretariat in Paris and by the Unesco Chief of Mission in Indonesia, and various foreign and Indonesian experts. After two days of deliberations the participants unanimously agreed that the only effective way of saving Chandi Borobudur from total disintegration was by dismantling and rebuilding the square terraces, on the lines suggested in the Nedeco plans. The problem of stone conservation demanded further studies, but the chemical treatment of the stones could be entrusted to the experts in charge. The financial estimates would depend on the final draft of the Nedeco plans (incorporating certain modifications), and on discussions to be held separately with the parties directly involved in the implementation.

These discussions took place in September and December 1971 in Yogyakarta. Nedeco's modified design was approved, and so was the estimated budget of US \$ 7,750,000. Nedeco was furthermore requested to prepare tender documents for those parts of the work that were to be entrusted to a contractor, and also a detailed description of the work to be carried out by the *Badan Pemugaran Candi Borobudur* (Agency for the Restoration of Chandi Borobudur).

The *Badan* was set up by the Government in April 1971, to lighten the burden on the Archaeological Institute (responsible for the care of all monuments throughout Indonesia), and to ensure single-minded dedication to completing the project. Staffed by senior engineers and archaeologists, and assisted by advisors in the various branches of science from several universities, the autonomous *Badan* was intended to handle all aspects of the project, technical and administrative, national and international.

The *Badan* started almost at the same time that Unesco ensured the international character of the enterprise by appointing a counterpart, Dr. C. Voûte, as Unesco Coordinator for Monuments and Sites in Indonesia, i.e. to work, in close cooperation with the Archaeological Institute, not only on the project, but on all the country's monuments. From the very outset, the Borobudur restoration project was intended to pioneer the appliance of modern technology to the conservation of monuments in general; the knowledge, experience, and skills gained from the project were to pave the way for a far-reaching programme for safeguarding Indonesia's major monuments.

The establishment of the *Badan* and the simultaneous appointment of a Unesco Coordinator proved to be of the greatest benefit. The awareness of a common responsibility soon developed a perfect mutual understanding and the closest cooperation, and this greatly helped to speed up the completion of the preparatory stage of the restoration work.

In order to verify progress made and assist in preparing the next instalment, an international Consultative Committee was set up in December 1972. The members, Dr. D. Chihara (Japan), Dr. J. N. Janssen (United States), Dr. R. M. Lemaire (Belgium), and Dr. K. Siegler (Federal Republic of Germany) were appointed by the Indonesian Government on the proposal of the Director-General of Unesco. Professor Rooseno, Chairman of the *Badan*, was appointed Chairman of the Committee.

The international character of the project now being ensured by a national executive agency, a Unesco Coordinator, and an international supervisory committee, the Government and Unesco signed a formal agreement on 29 January 1973 in Paris. On the same date agreements regarding voluntary contributions for the preservation of Chandi Borobudur were also signed between Unesco and several donating Member States. An Executive Committee, mainly to assist the Director-General of Unesco in the application of the international funds, was also established the same day.

In the meantime, Nedeco had completed the tender documents. By mid-1973, the contract for the engineering and the ancillary works had been awarded to the joint venture P. T. Nindya Karya (Indonesia) and the Construction and Development Corporation of the Philippines.

The work entrusted to the joint contractors is in two parts. The first comprises the establishment of site facilities (offices, workshops, power supply, transport equipment-trucks, forklift trucks, tower cranes, crane gantry, and

so on), to be completed before restoration begins. The second part of the contractor's work was to be carried out simultaneously with the work of restoration and comprises the construction of reinforced concrete foundations and filter-layers below the floors and behind the walls of the monument.

The work to be actually carried out by the Badan, assisted by the international experts, is mainly concerned with the monument itself. It comprises dismantling; registering, cleaning and treating the stones; restoration of the carved stones; and the rebuilding of the monument (including the construction of watertight layers behind the walls).

The restoration project thus involves the dismantling and subsequent rebuilding of the monument. But it is confined to the four terraces of the *rupadhatu*. The circular platforms of the *arupadhatu*, although they have sagged, have proved to be stable enough, thanks to Van Erp's restoration, and need only to be maintained. The base of the monument provides a firm and safe support, so that, from the technical as well as the financial point of view, it had better be left untouched. It is a pity, of course, that the reliefs of the *kamadhatu* will remain hidden and out of sight but, in this case, the safety of the monument must take precedence.

Starting with the dismantling of the *rupadhatu*, the actual restoration will take six years and the work of 600 technicians and labourers. By 1982, Chandi Borobudur should have regained its splendour and grandeur, a monument for all mankind.

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