BOROBUDUR

An Old Culture in the New World

by Samidi

Conservation and restoration of monuments have been practised in Indonesia since the beginning of the 20th century. Presently, more than about 1,600 monuments have been conserved; 240 have been restored. Among these monuments, Borobudur stands out as the first monument to be restored with modern technology.

The monument was successfully restored with the support of national and international experts, thanks to UNESCO aid. Conducted from 1975 to 1982, the restoration project also included the creation of an archaeological park, a pilot project which is now nearly completed. The park caters to tourists and the development of the region as a whole.

Borobudur was constructed around 780 A.D. by the Shailendra Dynasty. An 842 A.D. inscription mentions the financial means for the upkeep of a sanctuary, called Bhumisambhara, which could possibly be connected with Borobudur.

The monument, in the olden times, stood on sacred grounds. As one approaches the monument, one sees Mendut and Pawon temples, which form part of the Borobudur monument compound. Between Mendut Temple and Borobudur, are Progo and Elo. These are two interesting main rivers at Kedu plain. The area around the confluence of the two rivers was, in ancient times, a holy place of particular significance.

Used as a place for meditation as well as for religious processions in ancient times, Borobudur is, in reality, a stupa. The architectural design was modified into stepped pyramids for ancestor worship. It now consists of nine superimposed terraces crowned by a huge bell-shaped stupa. The structural design is complicated.

The pyramid, a symbol of the ancestors' abode, and the stupa, a symbol of Buddhism, were merged into the single entity called Borobudur. This monument, which is now one of the greatest monuments of mankind, is located in the "garden of Central Java", Indonesia. It is situated on the plain of Kedu, surrounded by volcanoes and mountains.

Symbolizing the Cosmic Mountain, its three main vertical divisions comprise the base, body and the top. The overall dimension of the base, with its protuberances, is 123 m. × 23 m. The body is composed of five quadrangular terraces with balustrades at the outer sides, converting the galleries into corridors.

The superstructure consists of three circular platforms, each of which supports a row of perforated stupas. Surmounting all these is the main stupa. At the top of the whole monument this stupa soars into the sky at a height of nearly 35 meters from ground level.

To drain rain water, sprouts were provided by the builders at the corners of each platform. Access to the upperpart is provided by stairways in the middle of each side. The eastern gate serves as the main entrance.

Borobudur is striking not only because of its exceptional architecture but also its striking abundance of elaborately carved bas-reliefs covering the walls, the Buddha figures and balustrades.

RESTORATION

It is not known how long Borobudur was in active use. But it could generally be assumed that it was used, at least, until the 10th century or even the 15th century. When the Indonesians were converted to the Muslim religion, Borobudur fell into oblivion.

Not utilized for a long period of time, the monument deteriorated. It was covered with earth for centuries until it was discovered in the 18th century. It was totally cleaned in 1814, when the British occupied Java.

Since then Borobudur attracted foreign experts. Dutch archaeologists and engineers studied its archaeological and technical aspects, including the deterioration that has taken place in the monument. A safeguarding commission was set up in 1900 for detailed technical studies on its restoration. The commission's recommendation to restore the monument was finalized in 1905.

The first restoration period of the monument was carried out by Van Erp from 1907-1911. Only a holding operation, improved rain water drainage, urgent repairs and partial restoration were done. The sagging, leaning, and subsided parts of the monument were not restored, but left in place. A complete photographical documentation was, however, provided.

The photographs were of greatest value when a check up of the monument was made in 1926. Regular measurements did not show changes in wall deviation. But a closer observation of the bas-reliefs revealed new cracks and deterioration.

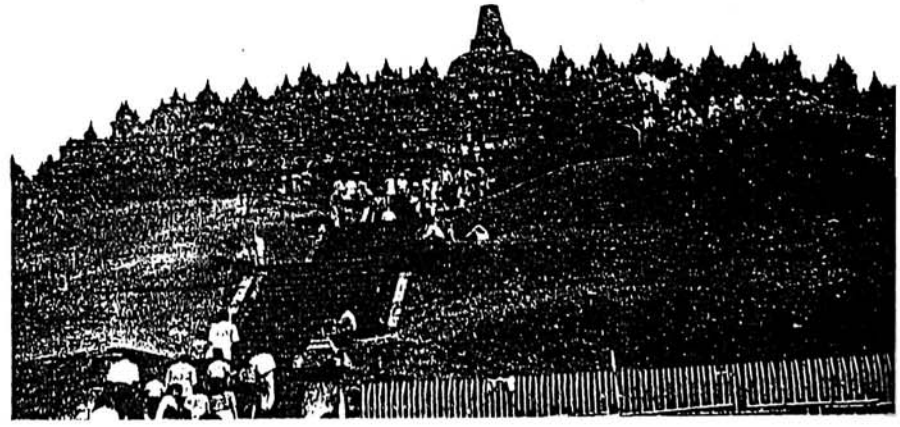
In 1929, a commission was set up to identify the causes of damage. Suggestions were given to arrest further decay. But due to world-wide economic depression, the restoration could not be undertaken until the Indonesian national independence in 1945.

The government of Indonesia again focused its attention on Borobudur in the 1950's. The government carried out relevant investigations and requested for UNESCO's assistance. As a result, since 1968, various national and international scholars studied Borobudur's problem intensively.

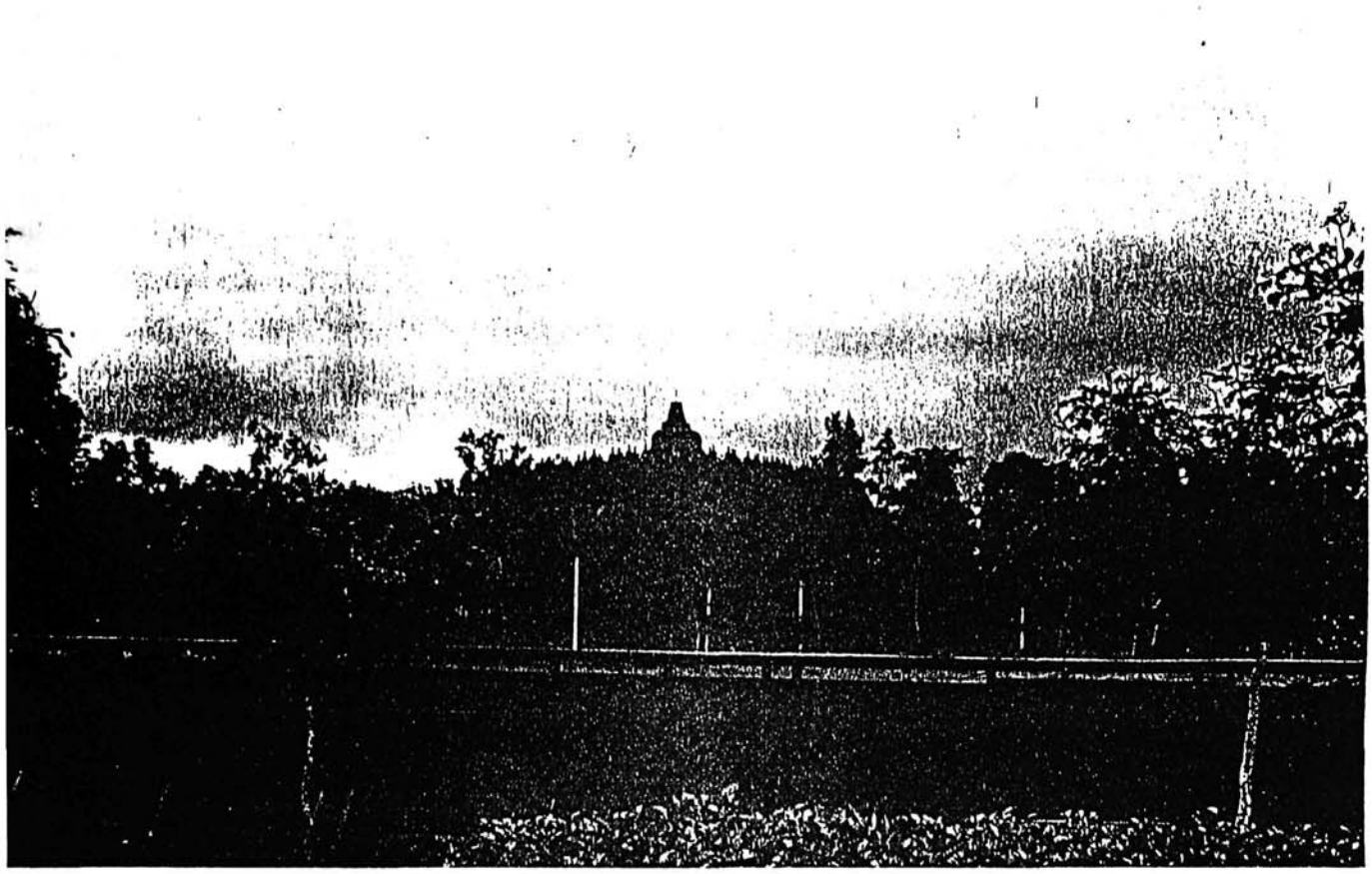
To counter the monument's deterioration, a bold plan of anastylosis was developed. The square terraces were dismantled and rebuilt. Simultaneously, concrete foundations and appropriate drainage systems behind the walls and under the floor were constructed.

As a consequence, detailed intersectoral technical studies had to be made. These studies also involved other fields of studies such as geology, soil mechanics, petrography, microbiology, climatology, and other related sciences.

Actual restoration work started in 1975 and completed in 1982. Dismantling, rebuilding, and conservation of the stones were carried out by the Archaeological Office, while the



Above : One of the galleries surrounding Borobudur. Note bas-relief decorations in Mahayana Buddhism.
Right : Visitors going up to Borobudur.



The ancient monument of Borobudur as viewed from the entrance.

construction of site facilities, concrete foundations and drainage systems were contracted. The whole project employed more than 800 technicians and labourers.

Interestingly, the conservation and restoration of the monument also involved the use of computers for the projects's control system, the stone registration system, and stone matching.

CREATION OF THE ARCHAEOLOGICAL PARK

The site of a monument has a direct impact on the damage or deterioration of the monument and just like the monument, it could degrade physically and culturally.

Preservation of the site, in a broad sense, means a permanent and synchronic effort in the preservation, maintenance, and protection of the site. There are two approaches in the preservation of a site: the software and the hardware.

The software approach involves government policies and law enforcements on the regulation, control and guidelines for the use of the monument and site as well as for the surrounding areas owned by the community people.

The creation of an archaeological park at the site could be regarded as a hardware approach. A brainchild of the consultative committee for the Safeguarding of Borobudur, the masterplan study of the park had been carried out by a joint project of the Gadjah Mada University of Indonesia and the Japan International Cooperation Agency.

Although the creation of an archaeological park for the Borobudur site is experimental, it is a national project. Constructions for the park are still progressing; the work started since 1983.

The park is being created as a national task for the proper protection of Borobudur and its site. By creating the archaeological park, Borobudur is given its proper place in the national consciousness.

The main goals of the archaeological park project are:

– To improve its environment and scenery and to provide maintenance on a continuing basis, the monument and site will be permanently preserved and protected as a nationally owned sanctuary,

– To preserve the historical climate of the site,

– To provide a centre for archaeological studies, and

– To promote national tourism by providing relevant tourist facilities at the park.

Since the goals of preservation and the development of the site usually have contrasting interests, systematic land control and the integrated block zoning system were introduced.

The zoning system created compose the following:

Zone I
(Sanctuary Zone) : for archaeological environment preservation of the monument and appreciation of the solemn atmosphere of the monument.

Zone II
(Archaeological Park Zone) : for controlling the development of areas surrounding the park.

Zone III
(Land Use Regulation Zone) : for controlling the development of areas surrounding the park.

Zone IV
(Historical Scenery Preservation Zone) : for the maintenance of the historical scenery.

Zone V
(National Archaeological Park Zone) : for archaeological surveys in the area.

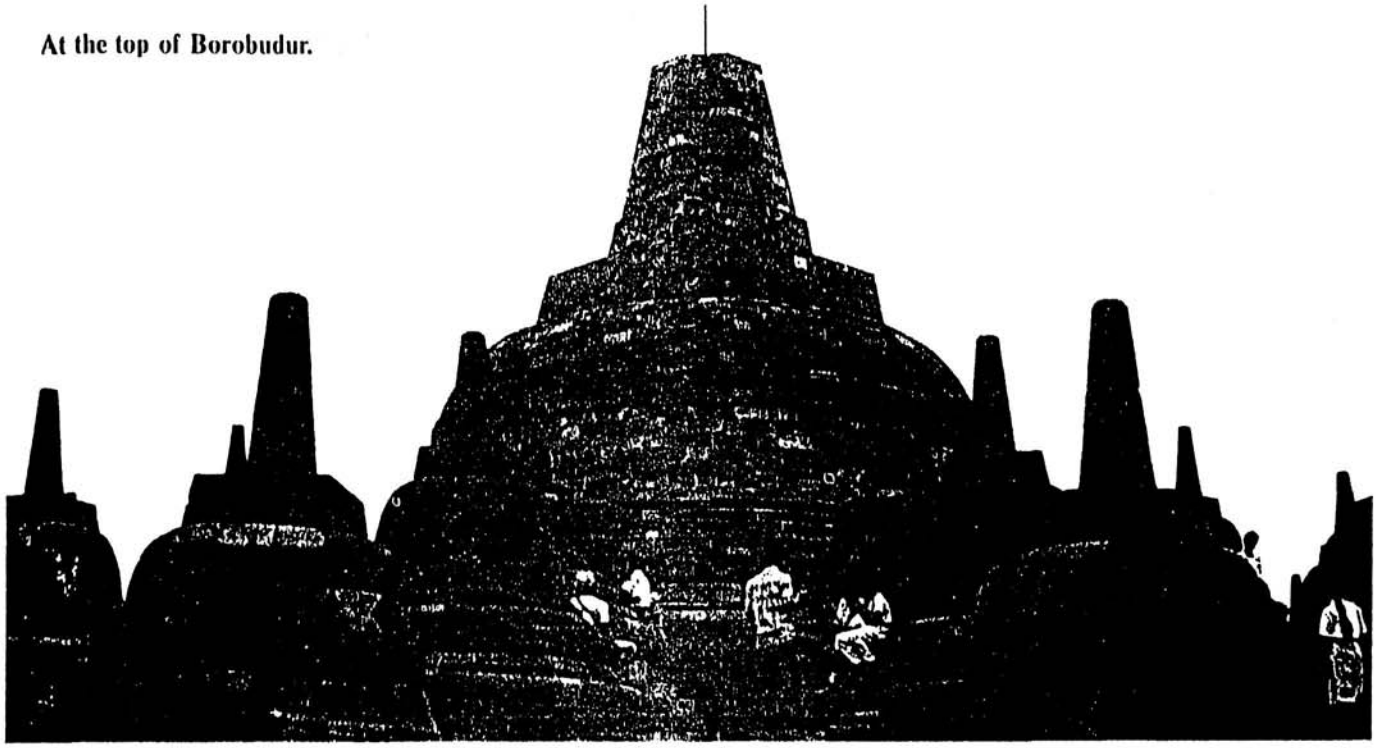
Land for Zone I and II are government owned. In the sanctuary zone, no new building is allowed. This is to enable full appreciation of the ancient monument. The archaeological park zone, on the other hand, will be beautified with decorative plants and trees.

Simple shelters and tourist facilities will be so developed to facilitate the control of traffic and to provide a pleasant atmosphere for visitors. Zones III - IV are surrounding areas owned by the community people. But the government controls the use of these areas.

Landscaping and gardening are important in the creation of the archaeological park. While grass and shrubs are the only plants allowed in Zone I, grass, shrubs, herbs and trees are allowed in Zone II. These, aside from enchancing the scenery, function as climatic ameliorator (temperature modification and wind control) and physical demarcations. The plants are also used for engineering purposes as in erosion control.

BOROBUDUR TODAY

For Indonesians, Borobudur is the tangible evidence of their glorious past. It serves as a spiritual beacon fostering self-confidence in the



At the top of Borobudur.

achievement of Indonesia's national aspirations.

After its restoration, Borobudur has finally regained its splendour and grandeur. But will it be able to stand another 1,000 years? Only regular conservation and preservation efforts can assure the monument's longevity.

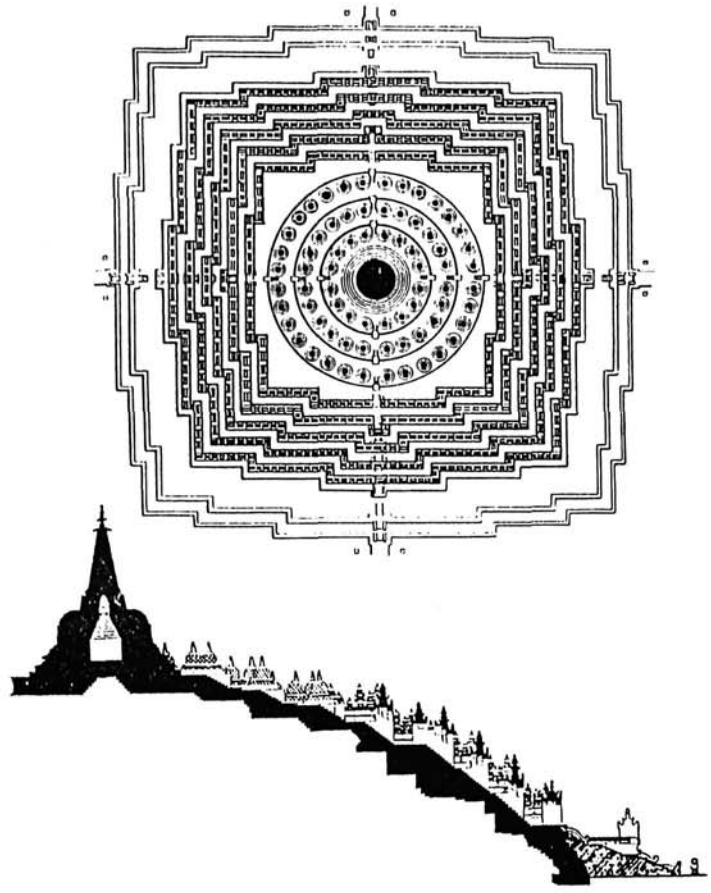
The maintenance and conservation of the monument is now regularly carried out by the Indonesian government. The construction and management of the yet unfinished archaeological park, on the other hand, is taken care of by the Borobudur Archaeological Park Limited.

Millions of tourists have annually been visiting Borobudur since it was inaugurated by the President of Indonesia on 23 February 1983. About 30-40,000 people crowd the monument daily especially during religious festivals. And needless to say, every distinguished guest of the Indonesian government visits the sacred monument.

Borobudur has become an important part of Indonesia again. And this is true not only from the religious and touristic points of view but also from the scientific point of view.

After Borobudur's restoration UNESCO donated a complete set of laboratory equipment. A number of books and technical reports on archaeology as well as conservation and restoration are kept at Borobudur. These are now used to study further conservation measures for Borobudur as well as other significant Indonesian monuments.

Moreover, Borobudur is now utilized for national and regional training courses on the restoration and conservation of monuments. 1977-1986 saw not less than 11 national courses implemented in the ancient monument. Each course was attended by 25 participants from various provinces.



Ground plan and vertical section of Borobudur (Source: Benjamin Rowland's book titled The Art and Architecture of India).

In addition to the number of experienced technicians produced by the restoration of Borobudur, more and more personnel are being trained at Borobudur to help safeguard all the other nationally meaningful monuments scattered all over Indonesia.

More importantly, from 1978 to 1981 the eight regional training courses held at Borobudur were attended by more than 40 technicians from Thailand, the Philippines, Malaysia, and Indonesia. UNESCO participants from Burma, Vietnam and Bangladesh were also given a chance to study the sacred and ancient monument in 1978 and 1988.

People around Borobudur find the site improving their lives. With the number of tourists and other visitors appreciating the monument, surrounding community people are able to sell souvenirs and other tourist services.

Borobudur, the greatest Buddhist monument of the past, has successfully regained life. It is now proving its powerful influence as an important conservation study centre and as a tourist destination. Borobudur, the old culture, has invaded the new world. ▣