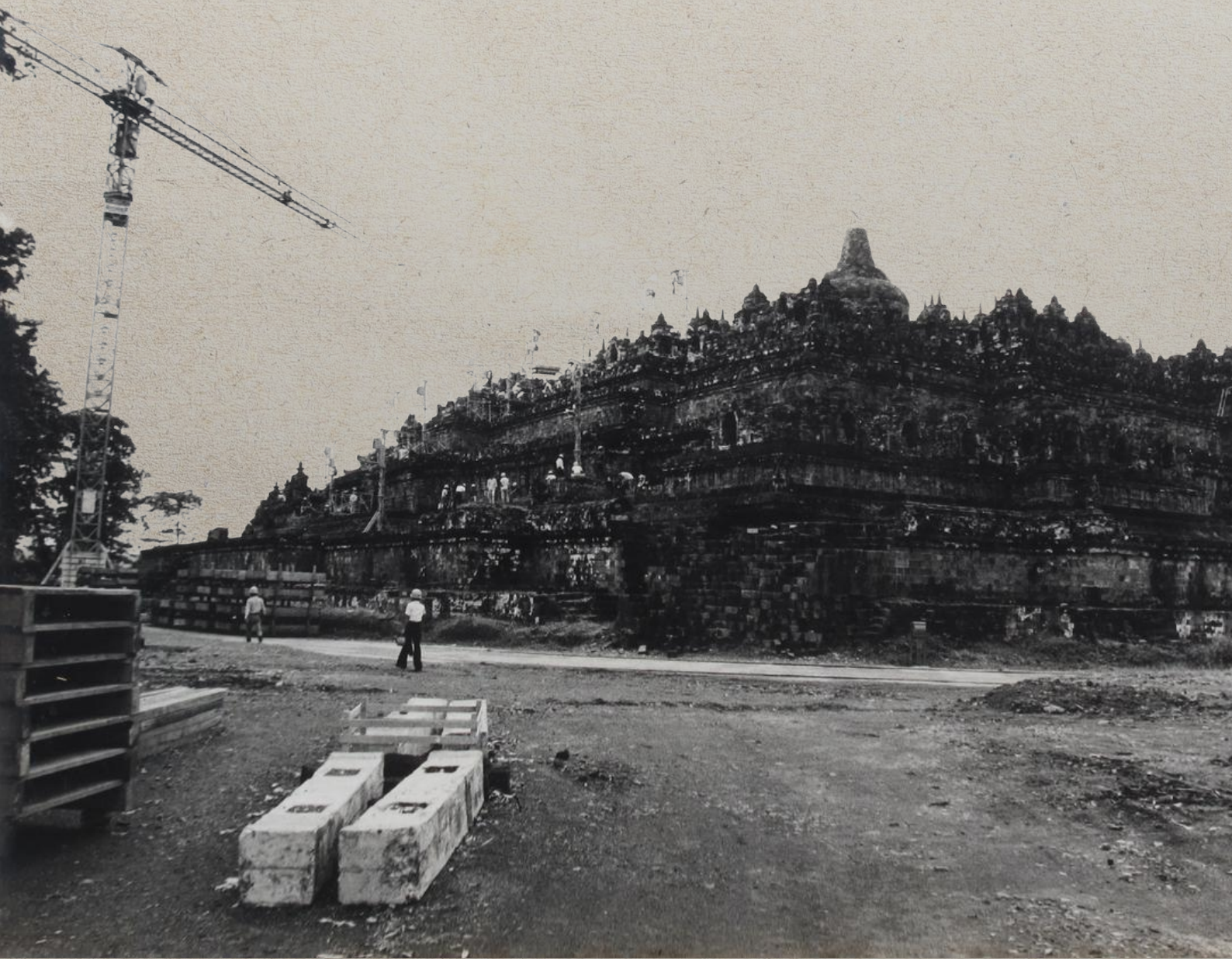


GUIDEBOOK

BOROBUDUR TEMPLE RESTORATION STUDIO



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BACKGROUND

The second phase of restoration of Borobudur Temple held in 1973-1983 was initiated by the Indonesian government and assisted by 28 UNESCO member countries. The restoration processes was preceded by a series of documentation, measurement, drawing, and photography activities.

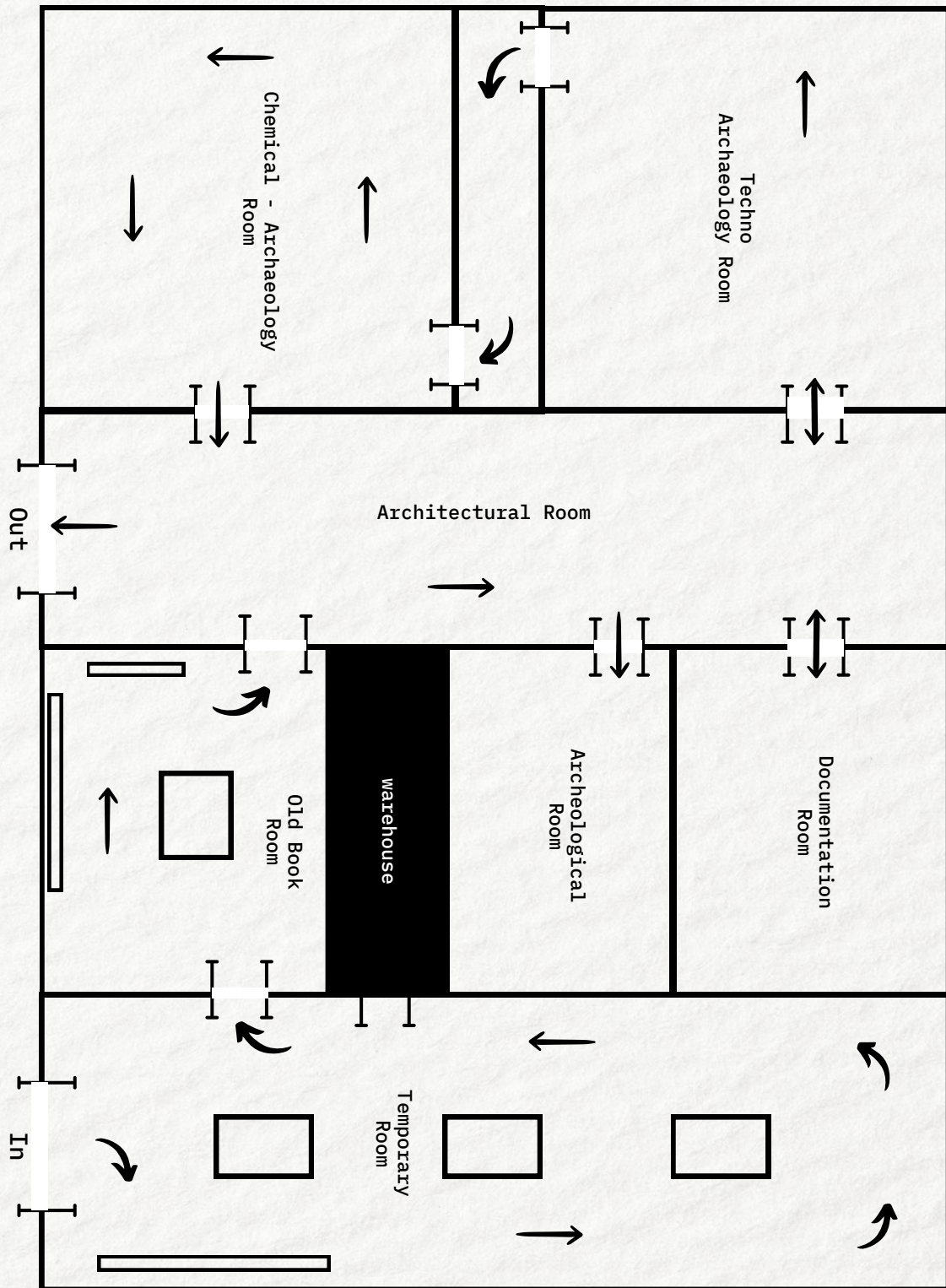
Restoration is carried out by dismantling all parts of Rupadhatu structure and cleaning stones from microorganisms, installing reinforced concrete foundations, making a water channel system, and rearranging the structure of Borobudur Temple.

Restoration activities are carried out using the most up-to-date equipment and instruments of its time. Currently these instruments are stored and are part of the collections of the Borobudur Temple Restoration Studio.

On December 27th, 2011, the Deputy Minister of Education and Culture inaugurated the Borobudur Temple Restoration Studio as a visualization room for the second phase of restoration of Borobudur Temple. The studio has 9 rooms that are used to store collections according to sector groups.



ROOM PLAN RESTORATION STUDIO





Temporary Room



Old Book Room



Architectural Room



Techno Archaeology Room



Archeological Room



Chemical - Archaeology Room

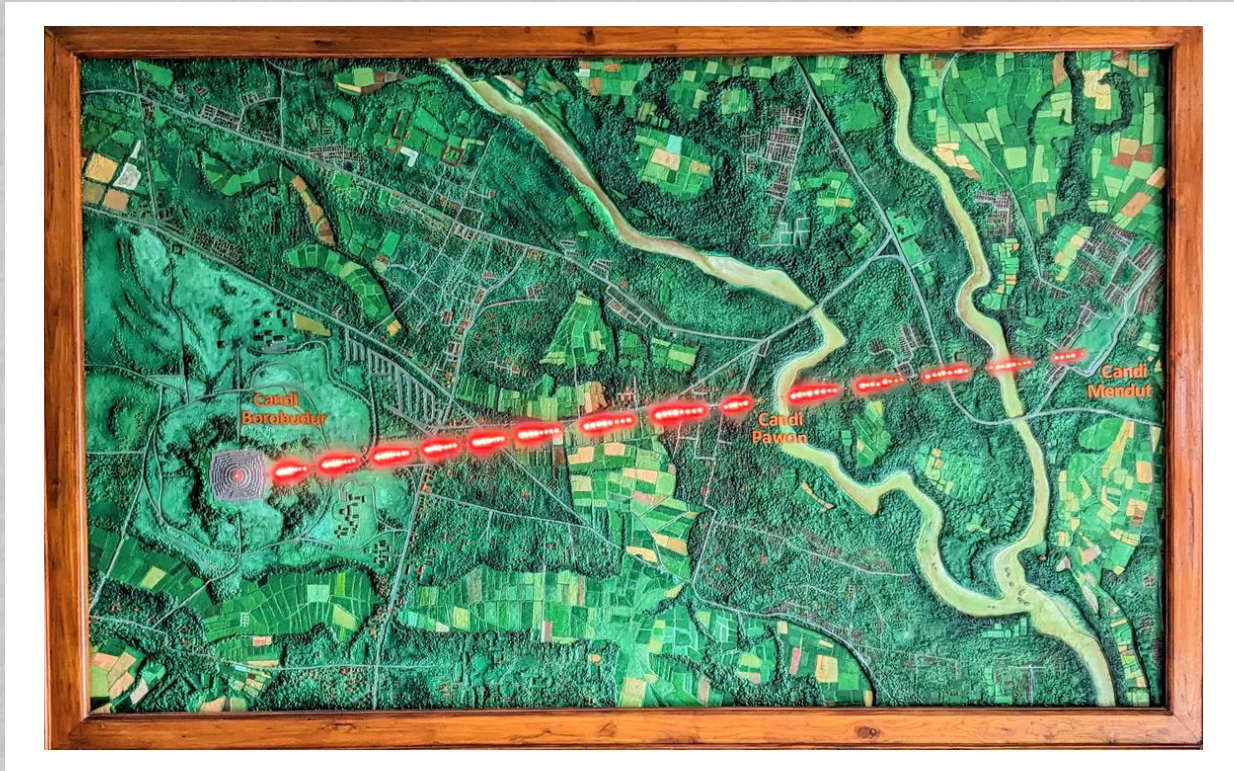


Documentation Section Room



TEMPORARY ROOM

Presents a 3-dimensional mockup of the Borobudur Temple Compounds, a mockup of the development of Borobudur Temple, Mendut Temple and Pawon Temple. The walls of this room displayed old photos of Borobudur Temple.



Mock-ups of Borobudur Temple Compounds

Borobudur Temple, Mendut Temple, and Pawon Temple are in one imaginary straight line. These three temples have similar architectural styles and decorations that are thought came from the same period. This models shows the connection of sacred rituals between the three temples.



THREE-DIMENSIONAL MOCK-UPS



Development mock-up of Borobudur Temple



Development mock-up of Mendut Temple



Development mock-up of Pawon Temple

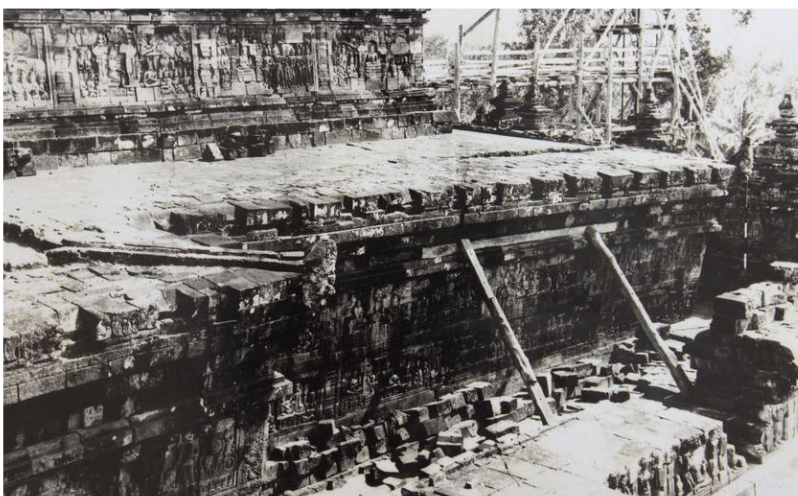
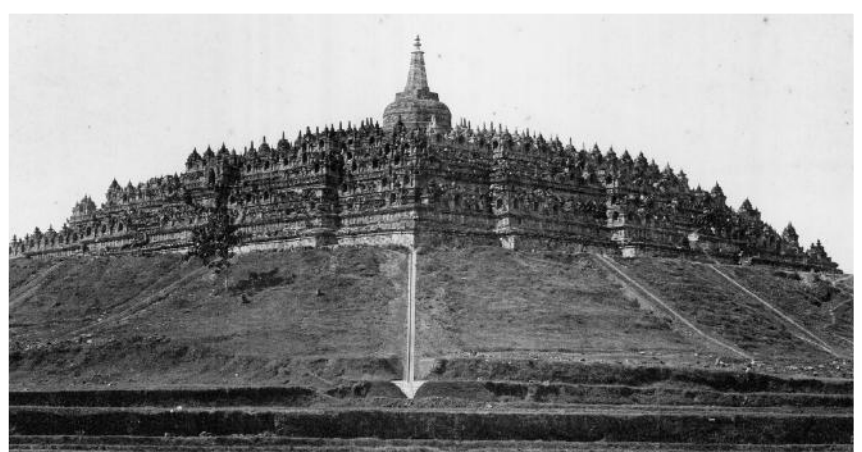


OLD PICTURES OF BOROBUDUR TEMPLE



Floor of Borobudur Temple before the first restoration

The chattra mounting experiment by van Erp



The walls of Borobudur Temple are tilted before the second restoration



OLD BOOKS ROOM

It contains a collection of ancient books "Barabudur" and the book de Hindoe Tempel Borōo Boedoōr op het Eiland Java.

In the center of the room, a slice miniature of Borobudur Temple shows that Borobudur Temple is not completely built of stone blocks, but stands on a hill.



**Slice Mockup
Borobudur Temple**

Provides a cross-sectional view of Borobudur Temple which is located on a hill whose surroundings are composed of andesite stones. The hill has several layers of soil, namely, dredged soil, A, B, and C horizons.

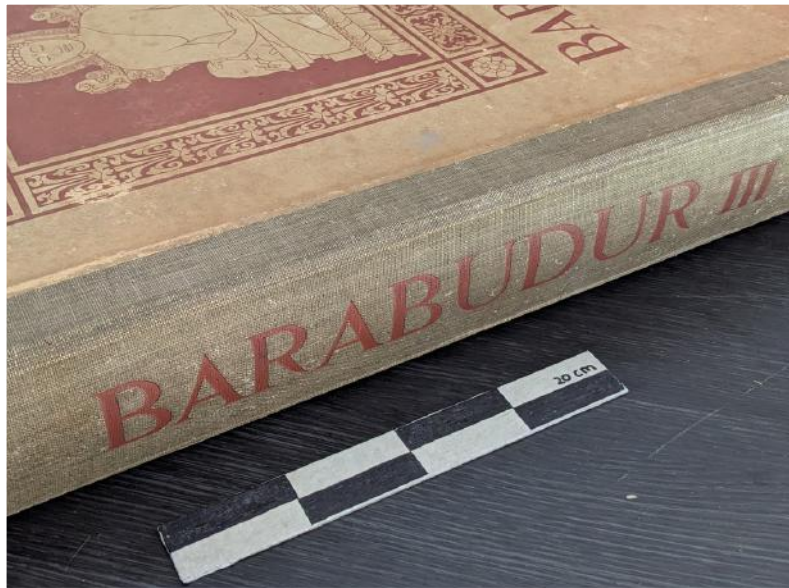
De Hindoe Tempel Borōo Boedoōr op het Eiland Java



The 8 series book is the first monograph on Borobudur Temple and was made in 1873.



OLD BOOKS



BARABUDUR

The 3 series book containing photographs and sketches of parts of Borobudur Temple made in 1920-1931.

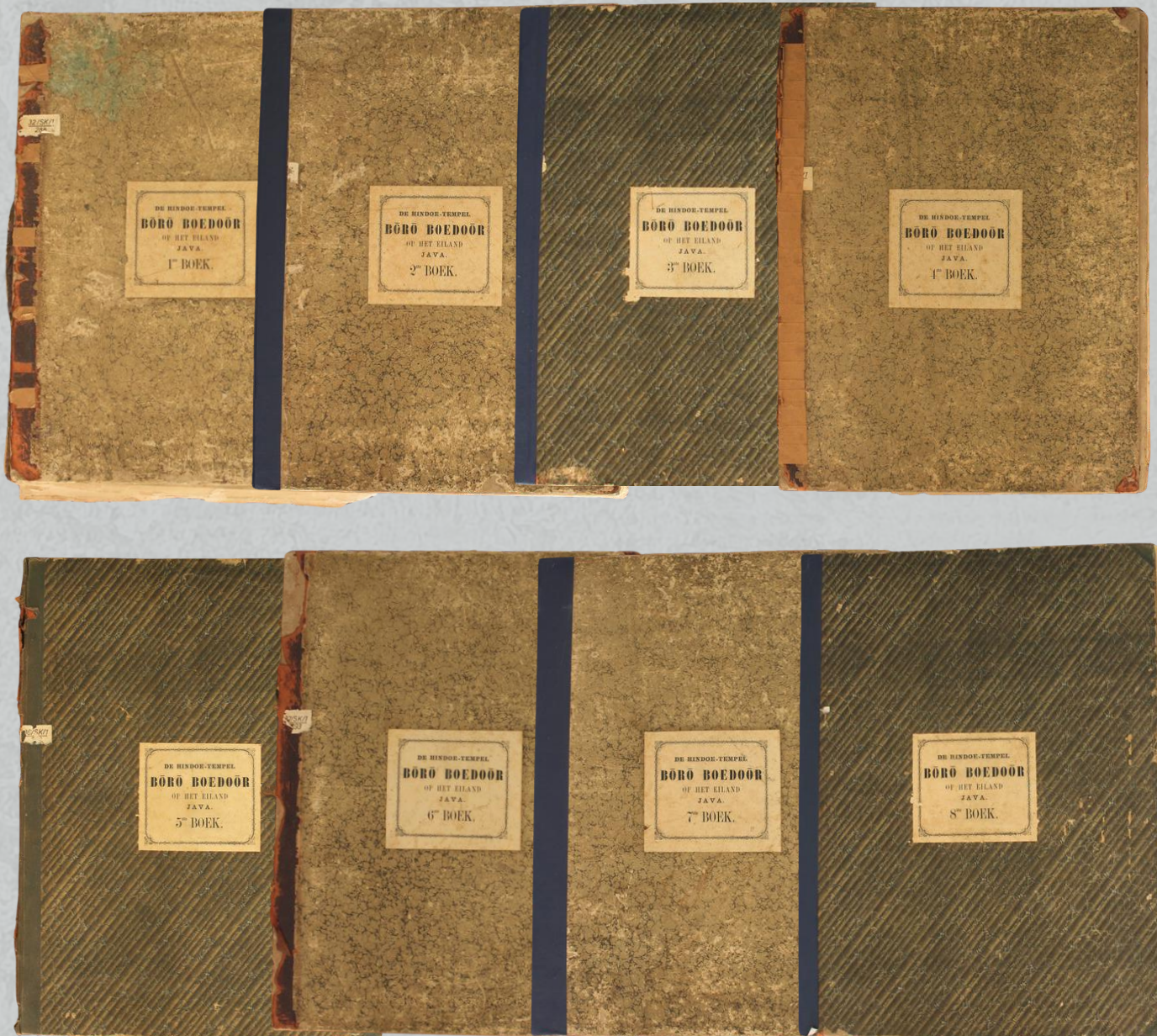
Beschrijving van Barabudur



the 2 series book containing descriptions of the 3 series of the Barabudur Book made between 1920 and 1931. Written by N.J. Krom and van Erp.



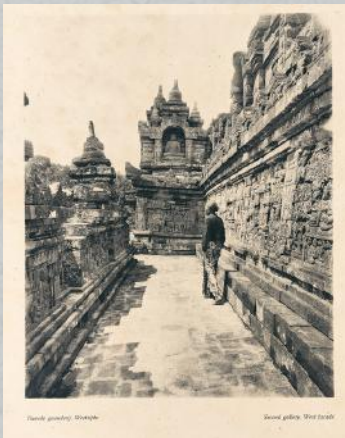
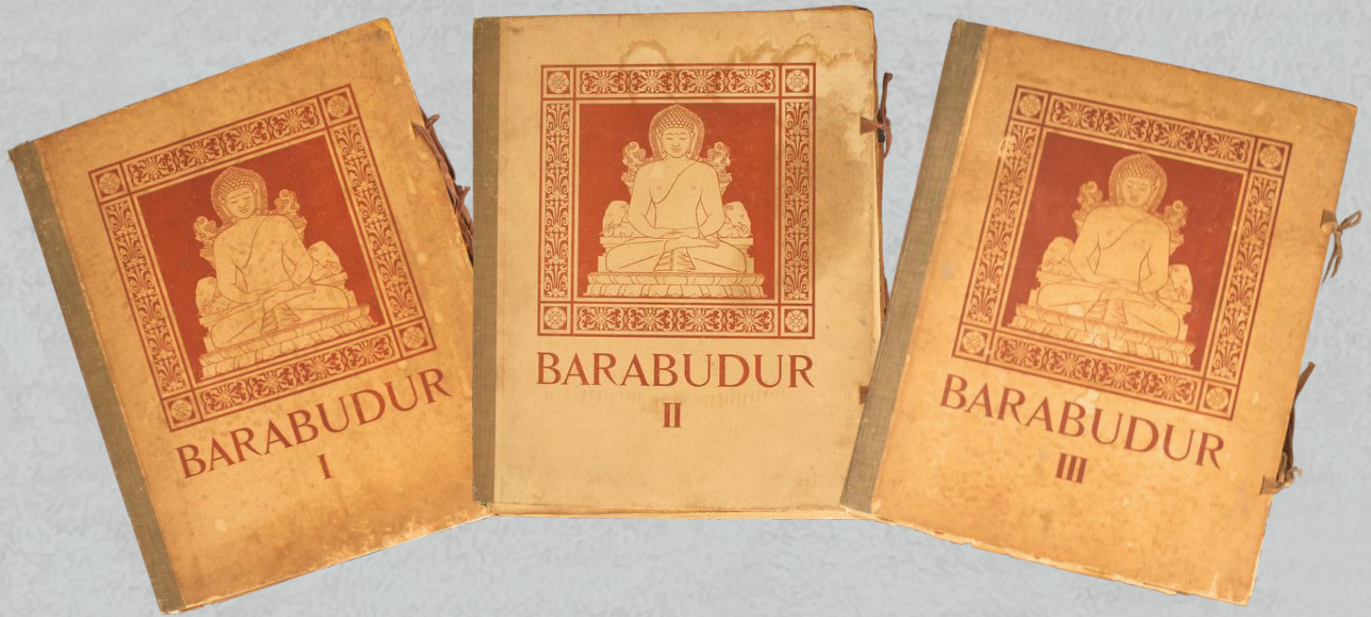
DE HINDOE TEMPEL BORŌO BOEDOŌR OP HET EILAND JAVA



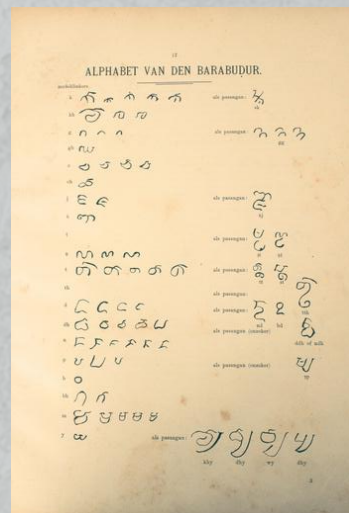
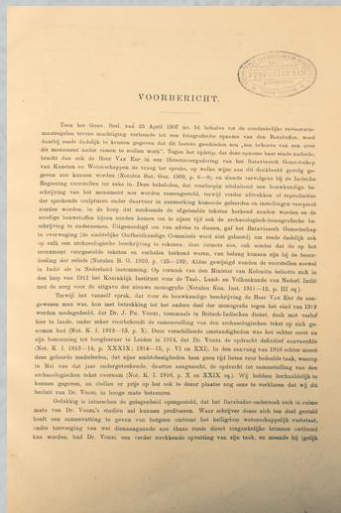
The book contains relief sketches of Borobudur Temple. Drawn and written by F.C. Wilsen and J.F.G. Brumund. Edited and published by C. Leemans.



BARABUDUR BOOKS



BESCHRIJVING VAN BARABUDUR BOOKS



ARCHITECTURAL ROOM

In the form of a hallway that shows the architectural elements of Borobudur Temple, both structural and decorative. The constituent stones of Borobudur Temple and replicas of stone jointing techniques are displayed on shelves on the left and right sides of the hallway.



Antefics

Form of architectural decoration of the temple and cannot stand alone. Generally used to cover the joint between two stones in a row. Carved with vine motifs. Antefics are found on the body, balustrade, and roof of the temple.

Terrace Stupa Stone Block

Stone in the shape of two triangles combined on one side. Found on your part (body) of the stupa with a rhombus hole.



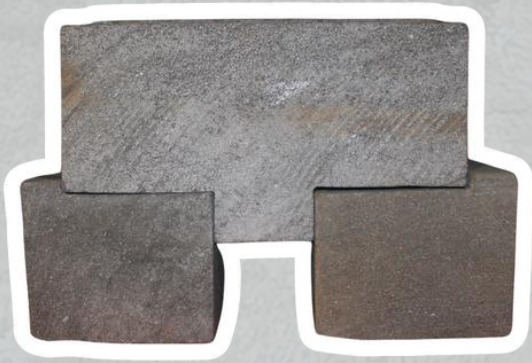
Keben-shaped peak

Keben is located on the balustrade of level I of Borobudur Temple. It is named "Keben" because it resembles a Keben fruit.



REPLICA OF JOINTS

1



PURUS & HOLE

The Purus and Hole type consists of a stone with a protrusion and another stone with a hole to insert the protrusion of the other stone. It can be found at the connection between the stupa body and the yasti.

2

BIRD'S TAIL

The Bird's Tail type is two stones in a row, with a hole and a locking stone that resembles a double bird's tail joined together.



3

TONGUE GROOVE & NOTCH

The tongue and groove type can be found on the balustrade of the hallway and the makara stone ornaments on the right and left of the stairs and hallway.



ARCHAEOLOGICAL ROOM

Presents artifacts related to Borobudur Temple, such as statues, reliefs, and artifacts found during excavations before the second restoration of Borobudur Temple was carried out.

BODY OF DHYANI BUDDHA STATUE



When found, the body of the statue was not in a complete state. The statue occupies a niche on the balustrade facing out or inside the stupa terrace of Borobudur Temple.



HEAD OF DHYANI BUDDHA STATUE



The head of this statue has not been found in Borobudur Temple. There are 56 (fifty-six) statue heads stored in this room.



RECONSTRUCTION OF BALUSTRADE RELIEF

Two reddish stone blocks, one black stone block, and two gray stone blocks. The relief panel of Borobudur Temple consists of several stones arranged with a connection system in the form of notches and bird tail locks.



DOCUMENTATION SECTION ROOM

Stores various equipment used in documenting the restoration process of Borobudur Temple. Documents in the form of black and white photos, film negatives, film positives, negative glass plate, celluloid film, and video tape. Now these documents have been designated by UNESCO as the Memory of the World under the name Borobudur Conservation Archive.

Technika Linhof Camera



The Technika Linhof camera is a high-resolution folding camera from the 1970s. This camera produced a glass negative archive of 7,024 pieces during the restoration of Borobudur Temple phase II.

Enlarger 90 M



Enlarger 90 M is a tool to enlarge photos. Used to print the documentation of the Borobudur Temple Restoration phase II.





Analog Camera



Durst Laborator 1000



Activities
documenting the
restoration of
Borobudur Temple
phase II

Photo
printing
activity
using 90 M
Enlarger



TECHNO-ARCHAEOLOGY ROOM

Featuring a collection of civil engineering equipment used during the restoration period. Measuring tools, communication tools, measuring tubs, drawing tables and others. There is also photogrammetric equipment used in the measurement and drawing process.

POCKET STEREOSCOPE & MIRROR



Convex lens and prism to observe 2 overlapping photos to get a 3-dimensional image.



STEREO MESS CAMERA CARL ZEISS SMK 120

A camera that has two separate lenses and film frames to take 3-dimensional images.





THEODOLITE

A tool for measuring the coordinates of control points and elevation measurements with horizontal and vertical angles with the ability to measure angles up to seconds.



TRACING TABLE

A tool that is connected to a terrygraph to produce images



STEREO PLOTTER

Serves to determine the difference in altitude using 2 stereo photos that overlap and have corrected the angle of shooting.



CHEMICAL-ARCHAEOLOGY ROOM

Stores conservation equipment used during the restoration. The arrangement of the chemical archaeology room refers to the sketch made by Prof. Dr. Daoed Joesoef during the restoration period. This room also stores chemicals used for the conservation of Borobudur Temple.



AC 322 chemicals used to clean the crust fungus (lichen) by applying it so that the moss easily peels off.

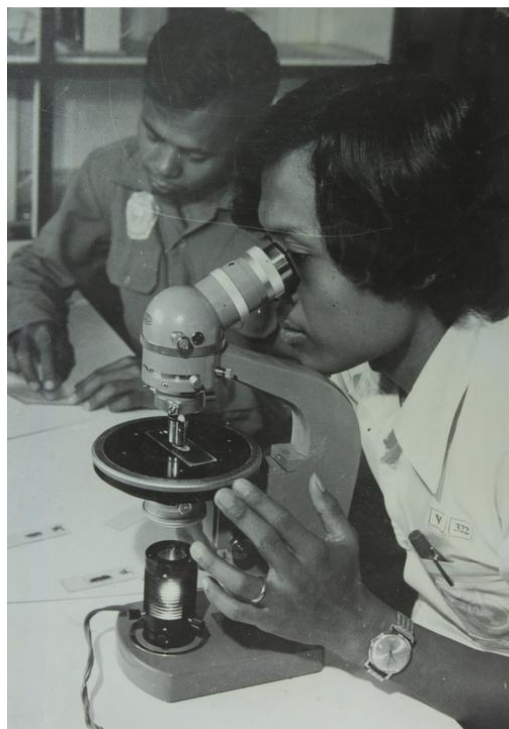


Chemicals used to glue stones (araldite) and protect stones from water (eurolan).



Microscope

Monocular and binocular microscopes were used during the restoration. The monocular microscope was used for microbiological analysis while the binocular microscope was used to display 3-dimensional images.



Microbiological analysis using a microscope



Araldite tar mixing process



RULES



No Touching



**No Food &
Drink**



No Smoking



No Running



No Shouting



Keep the Line Up

MORE DETAILS

Service Time : Monday - Friday
08.00 - 16.00 WIB

Location : Jl. Badrawati, Kw. Candi Borobudur, Borobudur,
Kec. Borobudur, Kabupaten Magelang, Jawa Tengah

Contact Us :  (0293) 788225  @konservasiborobudur





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