



# BOROBUDUR WORLD HERITAGE CASE STUDY

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This unit of work is designed with ACARA year 8 Geography syllabus in mind, although it is still applicable to the current Stage 4 syllabus.



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## ACARA Syllabus

### Year 8 Unit 1 – Landscapes

#### Unit Description:

This unit focuses on the nature of landscapes and the forces, processes and factors which shape them physically, as well as people's perceptions and use of them. The unit examines, at a variety of scales, how landscapes fundamentally affect the ways in which people live and also how landscapes are modified and managed.

Content description	Elaborations
The management and care of landscapes can occur at local, national or international scales	investigating a program that preserves the quality of a landscape, for example, Landcare and CoastCare, national and State parks, World Heritage sites.

The unit is structures to be compatible with the Super 6 literacy strategies, specifically predicting, monitoring and summarising strategies.

Class discussion/ pre-learning (Making Connections)

After investigating what World Heritage areas are, conduct a brief class discussion on Borobudur. Ask students where it is, what is Buddhism and connect them to things the students are familiar with eg. the Opera House as a World Heritage area.

There are a number of literacy tasks embedded in the unit as well.

This unit of work will take 3 – 4 lessons depending on individual teaching styles and additional tasks included.



## World Heritage

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage are both irreplaceable sources of life and inspiration.

What makes the concept of World Heritage exceptional is its universal application. World Heritage sites belong to all the peoples of the world, irrespective of the territory on which they are located.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972.

## World Heritage Spelling Word list

You need to write this list in your work book. For homework you need to use the LOOK, SAY, COVER, WRITE, CHECK method to learn the words. You need to write out your spelling list five (5) times.

Borobudur	Indonesia
heritage	Convention
threat	Temple
restoration	criteria
Buddha	stupa
monument	edifice
preservation	protect





# BOROBUDUR WORLD HERITAGE CASE STUDY

## Case Study of World Heritage site: Borobudur Temple Compounds

Literacy strategies to use throughout this text

### Predicting:

Before reading through the text below, quickly skim the text, have a look at the headings and sub headings, words in bold, pictures and illustrations and descriptions of images. In your workbook write down what you think the text below will be about.

### Monitoring:

Make sure you monitor your understanding of the text. As you read, ask yourself questions such as:

- Is this making sense?
- What have I learned?
- I'm confused. What is a strategy I can use to clarify meaning and help me understand what I am reading?
- Do I need to re-read (part of) the text?
- What can help me fill in the missing information?
- What does this word mean?



Borobudur, North-west view. Source Wikimedia Commons

### General information and history

The Borobudur Temple compounds are a UNESCO World Heritage listed monument. It is located in the Kedu Valley, in the southern part of Central Java, at the centre of the island of Java, Indonesia. Borobudur is one of the greatest **Buddhist** monuments in the world. It was built between 750CE and 842CE. It was built to honour **Buddha** and is a place where many Buddhist **pilgrims** come to pray. The name Borobudur is believed to have been from the Sanskrit (an ancient language of India) words *vihara Buddha uhr*, meaning the Buddhist monastery on the hill. The temple rises **imposingly** from the surrounding landscape, **inspiring** all travellers who come to visit it. Once a year Buddhists in Indonesia celebrate Vesak (informally known as Buddha's birthday) at Borobudur.



**Buddhists** are people who follow the teachings of Buddha, who lived in India around the 5<sup>th</sup> century BCE. Buddhism is the religion he founded.

Around the beginning of the 11th Century CE, the temple was abandoned and fell into disrepair as a result of the declining influence Buddhism and the growth of Islam in Indonesia. It was eventually abandoned, becoming covered by volcanic ash from nearby Mt Merapi. Worldwide knowledge of its existence was generated in 1814 by Sir Thomas Stamford Raffles, then the British ruler of Java, who was advised of its location by native Indonesians. Restoration work however, did not begin until 1975. Borobudur was inscribed on the World Heritage list in 1991.

## Criteria for inscription as World Heritage

**Criterion (i):** Borobudur Temple Compounds with its stepped, unroofed pyramid consisting of ten superimposing terraces, crowned by a large bell-shaped dome is an harmonious marriage of **stupas**, temple and mountain that is a masterpiece of Buddhist architecture and monumental arts.

*Criterion: the standard which a place or thing must meet to be counted as a World Heritage Area.*

**Criterion (ii):** Borobudur Temple Compounds is an outstanding example of Indonesia's art and

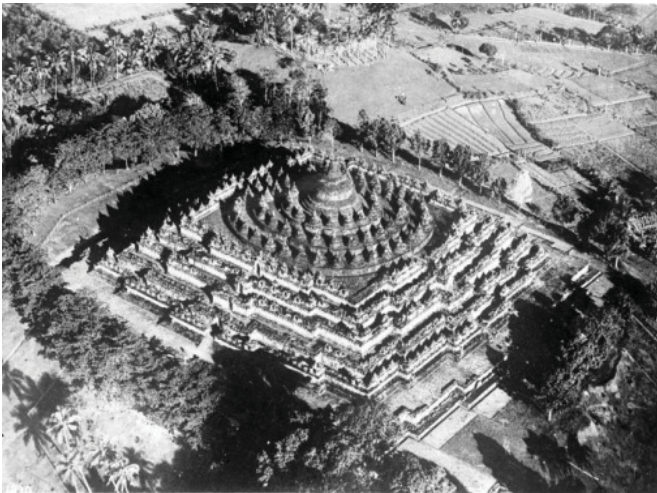
*Stupa: literally means a heap; a dome shaped structure serving as a Buddhist shrine.*

architecture from between the early 8th and late 9th centuries that exerted considerable influence on an architectural revival between the mid-13th and early 16th centuries.

**Criterion (vi):** Laid out in the form of a lotus, the sacred flower of Buddha, Borobudur Temple Compounds is an exceptional reflection of a blending of the very central idea of indigenous ancestor worship and the Buddhist concept of attaining **Nirvana**. The ten mounting terraces of the entire structure correspond to the successive stages that the Bodhisattva has to achieve before attaining to Buddhahood

*Nirvana: The Buddhist concept of heaven.*

# BOROBUDUR WORLD HERITAGE CASE STUDY

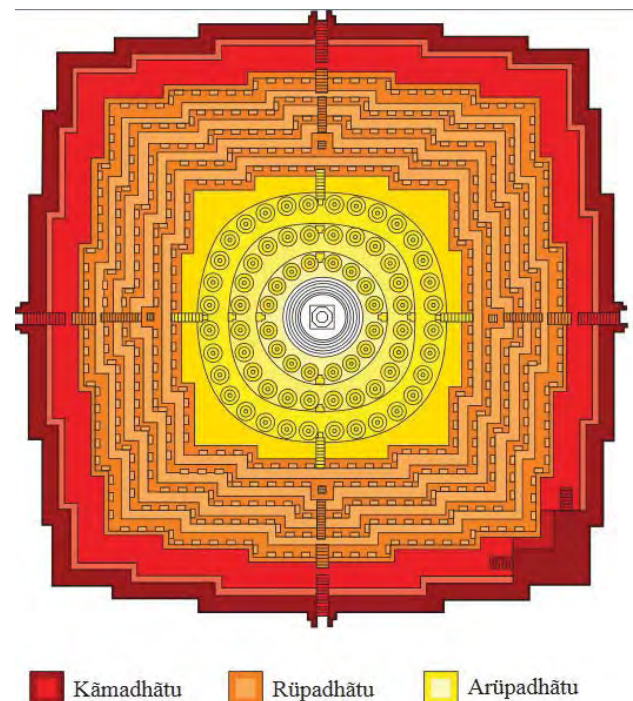


Aerial view of Borobudur. The square and circular sections are clearly visible.



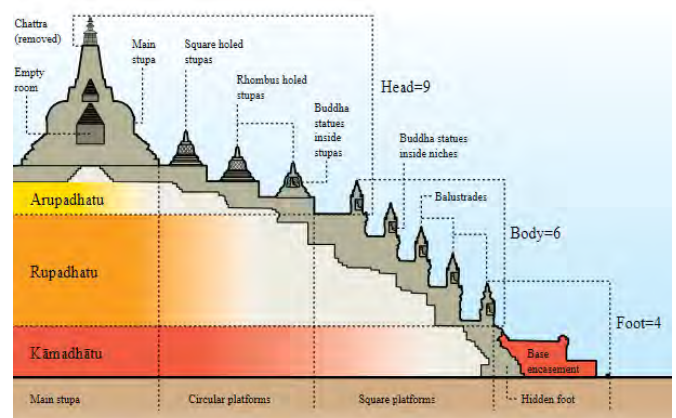
Mendut Temple located west of Borobudur.

Top view diagram of Borobudur



Cross section diagram of Borobudur

Borobudur Cross Section and Building Ratio  
Borobudur, Central Java, Indonesia



The statue of Buddha in Mendut Temple is surrounded by Bodhisattvas, (a person who can reach Nirvana but chooses not to in order to alleviate the suffering of others) Lokeshvara on the left and Vairocana on the right.



# BOROBUDUR WORLD HERITAGE CASE STUDY



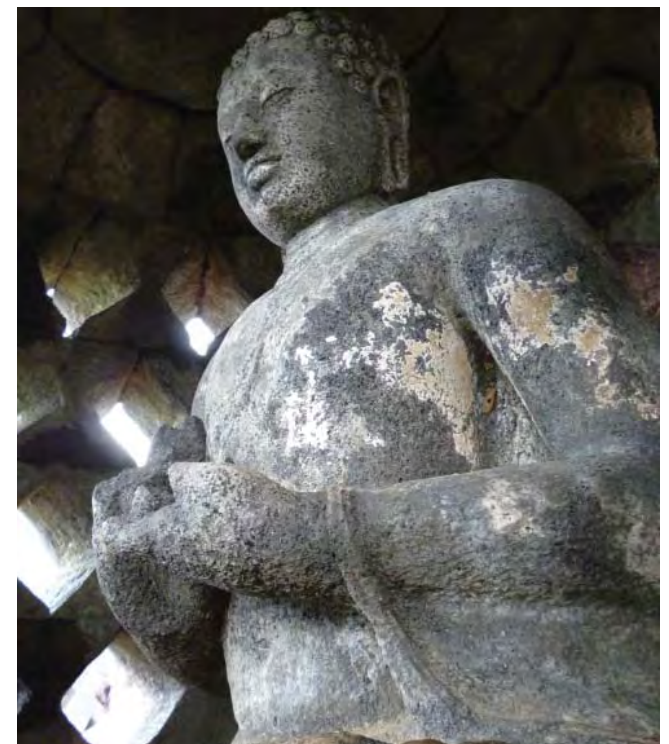
There are 432 Buddhas that stare out from the open chambers above the walkways and another 72 on the upper levels that are placed inside the stupas. Reaching into the stupas to touch the hand of the Buddhas is believed to bring a person good luck.

As Borobudur is both a shrine to the Lord Buddha and a place for Buddhist pilgrimage, its design is full of symbolism. The temple is designed as a mandala (a symbol representing the universe in Buddhism), and the whole structure is a synonym for the universe, starting with everyday life at the bottom and spiralling up to Nirvana represented by the enormous stupa at the top.



*A statue of Buddha inside a stupa*

Statue of Buddha



*Stupas at the top of Borobudur containing statues of Buddha*

Galleries depicting the life of Buddha



# BOROBUDUR WORLD HERITAGE CASE STUDY

Pilgrims undertake a symbolic journey around the temple, beginning at the base of the temple and following a path around the temple and **ascending** to the top through three levels representing in the Buddhist universe: *Kāmadhātu* (the world of desire), *Rupadhatu* (the world of forms) and *Arupadhatu* (the world of formlessness). Pilgrims are guided through an extensive system of stairways and corridors with 1,460 narrative relief panels on the walls and the balustrades.

*Symbolic:  
representing  
something*



The **relief** panels are sculptures of images telling the story of Buddha's life, extending over a total length of six kilometres. It has been hailed as the largest and most complete collection of Buddhist reliefs (sculptured drawings) in the world, unsurpassed in artistic merit, each scene an individual **masterpiece**. The stories told by the reliefs on the main walls (the inside of the path) read from the right to left, those on the balustrade (the outside of the path) from left to right. This was done for the purpose of the *Pradaksina*, the **ritual** walk around the circumference of the temple which the pilgrims make moving clockwise and keeping the main body of the temple on the right.

*Above and below: examples of the reliefs around Borobudur.*





# BOROBUDUR WORLD HERITAGE CASE STUDY

## Threats to Borobudur

Borobudur is the most visited site in Indonesia with both tourists and pilgrims contributing to the around 2.5 million visitors per year to the site.

According to UNESCO, the main threats to Borobudur are:

- Development pressure;
- Uncontrolled vendors around the property;
- Lack of institutional co-ordination;
- Poor state of the stone bas-reliefs.



*Some of the two and half million visitors to Borobudur each year.*

Tourism **exerts considerable** pressure on the property and its **hinterland**. The visitors contribute to the damaging of the site by touching and handling the walls and reliefs. People often sit on and climb on the stupas and other statues located on the temple.



*Vendors trying to sell items to tourists*



*Tourists climbing on features of Borobudur*



*Vendors trying to sell items to tourists*

# BOROBUDUR WORLD HERITAGE CASE STUDY

## Threats to Borobudur

### Synonyms

Place the numbers from the box below next to the corresponding word in the text below.

1	Countryside	6	Resist
2	Money-making	7	give and take
3	Instead	8	Shops
4	Visual	9	Worldwide
5	Annoying	10	Way

Due to the popularity of the site, there is a significant amount of commercial ( \_\_ ) activity that occurs close by, mostly based on people selling souvenirs to tourists. This activity has been allowed to develop without much organisation. The stalls ( \_\_ ) set up have a cheap and tacky feel to them and a large number of individual vendors have set up on the grass along pathways leading to the temple or alternatively ( \_\_ ) following tourists around harassing ( \_\_ ) them to buy things, frequently completely unrelated to the site.

Eruptions of Mount Merapi is also considered as one of the potential threats because of the acidic ash it drops on the temple as happened in 2010. Mt Merapi is an active volcano located only 30 kilometres away. Merapi is one of the most active volcanoes in Indonesia. Smoke is visible from the volcano most days of the year and it erupts significantly approximately every ten to fifteen years. Many of the Buddha statues have been damaged by earthquake activity. Very few of the Buddhas on the temple remain completely intact. As a means ( \_\_ ) of protecting the site, authorities cover the entire upper levels of the structure with plastic during an eruption to protect it from the ash. An expert from the World Heritage Centre worked out that the epoxy resin, steam cleaning and water repellants (to repel) ( \_\_ ) being used to fix or protect the temple were actually causing the temple to deteriorate faster than it should. Workers on the site have now stopped using some of the damaging chemicals.

The main threat to the temple is from development that could compromise the extraordinary relationship between the main monument and its wider setting and could also affect the Outstanding Universal ( \_\_ ) Value of the property. The approach to the property has to a degree already been compromised ( \_\_ ) by weak developmental regulations. As more and more buildings are built in the surrounding area, the aesthetic ( \_\_ ) feel of the site is compromised as views to and from the temple are obstructed or polluted by changes to the surrounding landscape ( \_\_ ). At the insistence of UNESCO, the Indonesian government has stopped a number of commercial and industrial developments in the area that would have had an adverse effect on the visual integrity of the area surrounding the temple and also a physical effect on the environment in the case of cement mixing plant that was going to be located close by.



# BOROBUDUR WORLD HERITAGE CASE STUDY



*The topmost stupa of Borobudur covered in plastic to protect it from acidic volcanic ash.*

**Watch this video from UNESCO on Borobudur –**

[http://www.youtube.com/watch?v=txujqGtB\\_6g](http://www.youtube.com/watch?v=txujqGtB_6g)

## General Questions

Answer questions in your workbook or as directed by your teacher.

1. Look at the predictions you made before you read the information. How accurate were your predictions? What did you get right or wrong?
2. Make a list of words of four letters or more that you can make by rearranging all the letters in the words **Borobudur Temple**.
3. Match the following words with their base word.
- 4.

Word in text	Base word
criterion	restore
imposingly	decline
inspiring	align
declining	ascend
restoration	impose
alignment	criteria
ascending	inspire

5. Make a list of the words in bold in the text and then make a glossary of those words (unless they have definition already written for them). Be sure the meaning you find is contextually relevant.
6. As a class, rewrite each of the criteria for inscription of Borobudur in your own words.

7. Unscramble the words in the box below:

Bbrooudur	_ _ r _ _ d _ _
geteHira	_ _ _ i t _ _
Smbsiyolm	_ _ m _ _ l _ _
Bdhusitd	_ u _ _ _ t
Trhseat	_ _ _ _ _ s

8. Use the unscrambled words from Question 7 to complete the sentences below.

- a. \_\_\_\_\_ is an important monument for the world's history.
- b. For this reason, it has been listed on the World \_\_\_\_\_ list by UNSECO.
- c. The monument is full of \_\_\_\_\_. Every aspect of the temple has significance.
- d. Borobudur is one of the greatest \_\_\_\_\_ temples in the world.
- e. There are a number of \_\_\_\_\_ to the site that are being dealt with by the Indonesian government.



*Damaged statue of Buddha*

# BOROBUDUR WORLD HERITAGE CASE STUDY

## General Information and History

9. What do BCE and CE stand for?
10. State a year that is around the beginning of the 11<sup>th</sup> Century.
11. List the (7) significant events mentioned in the history of Borobudur in date order below.
12. Create a timeline using an appropriate scale for your events from Question 8.
13. How long did it take to build Borobudur?
14. How long was it covered in ash?
15. Approximately how many times did Mount Merapi erupt during the time that Borobudur lay abandoned?
16. Approximately how long ago did Buddha live?

## Design features and symbolism questions

17. What is a Pradaksina?
18. Name the four significant features mentioned that are in perfect east west alignment?
19. Look at the diagrams on page 5.
  - a. What do you think is meant by “building ratio”?
  - b. What do you notice about the circular and square shapes in the top view?
  - c. What kinds of symmetry does Borobudur have?
  - d. Lightly draw in any lines of symmetry on to the top view.
  - e. The relief panels have a total length of six kilometres and there are 1460 panels. Estimate how long each panel is. Give an example of something from your daily life that is the same length.
  - f. Using your own words, explain how the Borobudur’s designers were able to fit that many panels into the building.
20. Using a scale of 1cm=1km (1:1000000), draw a possible map of the area showing Borobudur, Mt Merapi, Candi Pawon and Mendut.

## Threats to Borobudur

21. How many people visit Borobudur each year?
22. How many people would this be per day (on average)?

23. Identify three threats to Borobudur temple.
24. Name two groups that are responsible for preserving the site.

## General questions

25. On the map on the following page mark Borobudur and Jakarta using their latitude and longitude (Borobudur: 7.6° S, 110.2° E, Jakarta: 6.1° S, 106.7° E)
26. Use the scale to determine how far it is from Jakarta to Borobudur.
27. Internet research – Find a definition of the Wonders of the World and list 5 examples of them.

## Extended Response Question

28. Discuss three of the features and or threats of/ to Borobudur.

## References

### UNESCO World Heritage

<http://whc.unesco.org/en/about/> (accessed 15/5/13)  
<http://whc.unesco.org/en/list/592> (accessed 15/5/13)

Taylor, K., Cultural landscape as open air museum: Borobudur world heritage site and its setting, *Humanities Research* Vol. 10 No. 2, 2003, p 51–62

### UNESCO Logo

[https://commons.wikimedia.org/wiki/File:UNESCO\\_logo.svg](https://commons.wikimedia.org/wiki/File:UNESCO_logo.svg) (accessed 28/6/13)

### World Heritage logo

[http://www.struxtravel.com/wp-content/uploads/2010/10/world\\_heritage\\_logo.png](http://www.struxtravel.com/wp-content/uploads/2010/10/world_heritage_logo.png) (accessed 28/6/13)

### Aerial view of Borobudur

[http://commons.wikimedia.org/wiki/File:COLLECTIE\\_TROPENMUSEUM\\_Luchtfoto\\_van\\_de\\_Borobudur\\_TMnr\\_10015636.jpg](http://commons.wikimedia.org/wiki/File:COLLECTIE_TROPENMUSEUM_Luchtfoto_van_de_Borobudur_TMnr_10015636.jpg) (accessed 17/4/13)

### Borobudur cross section

[http://commons.wikimedia.org/wiki/File:Borobudur\\_Cross\\_Section\\_en.svg](http://commons.wikimedia.org/wiki/File:Borobudur_Cross_Section_en.svg) (accessed 17/4/13)

### Borobudur top view diagram

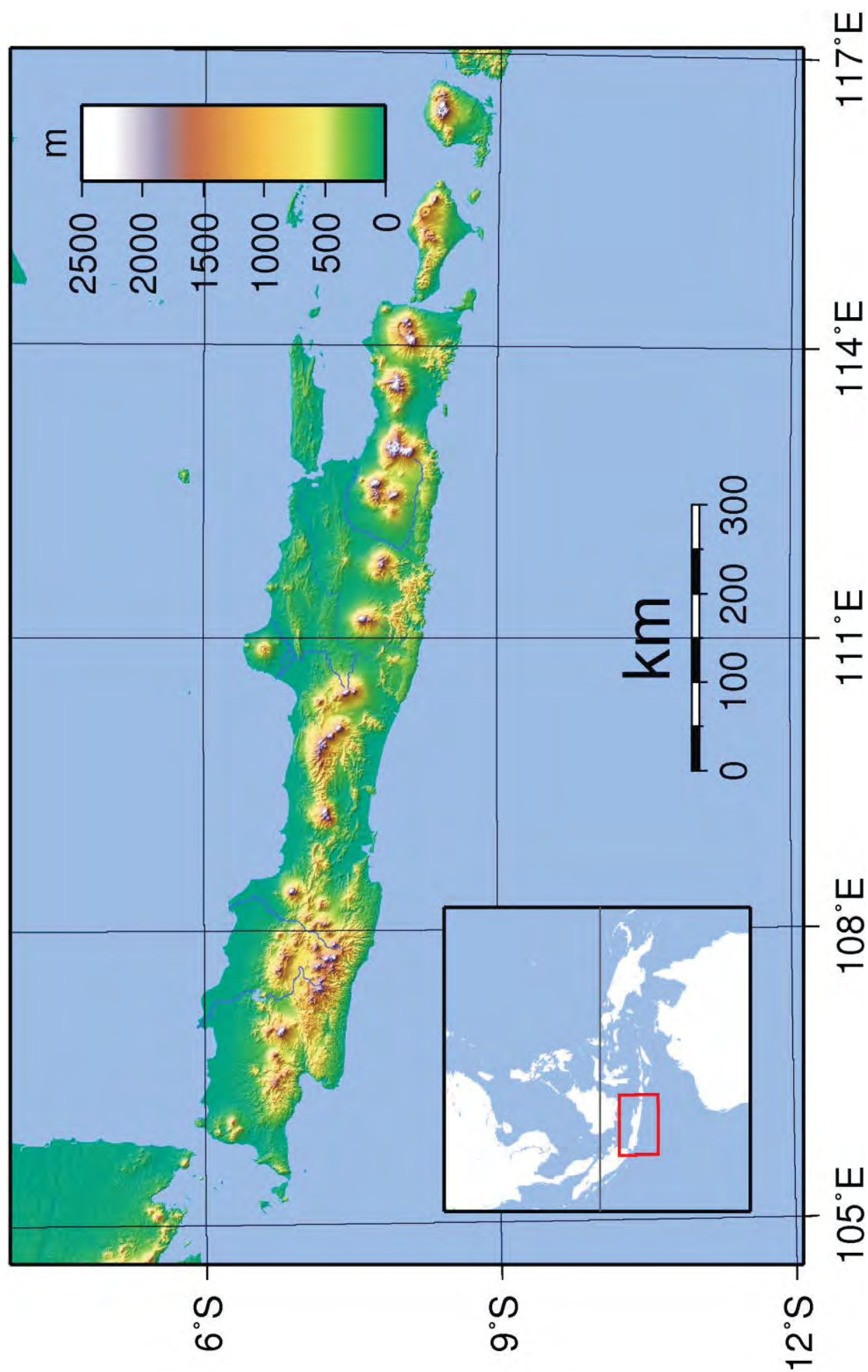
[http://commons.wikimedia.org/wiki/File:Borobudur\\_Mandala.svg](http://commons.wikimedia.org/wiki/File:Borobudur_Mandala.svg) (accessed 17/4/13)

All other images courtesy of Ross Mackay.



# Topographical map of Java

## BOROBUDUR WORLD HERITAGE CASE STUDY



# BOROBUDUR WORLD HERITAGE CASE STUDY

## Borobudur key terms

Z I N G T E R Y G Z E R C D M C K D  
K G M R N E D N Z C H I H E O M G E  
U T E P L I I I E M R G I S N B C B  
I X I I O D N I F C Q B N S U O A I  
E N E C N S P I U I U P T A M T I R  
L F T E N R I M L D C N E P E C R C  
T A C E E O F N D C E E R R N A E S  
R S U T G E I H G I E O L U T T T N  
A I S T R R I T C L M D A S B N I I  
Z A L E I S I N A I Y Y N N Y I R Q  
M A N E T R A T S R R J D U Z W C B  
A C T A C K Y E Y P O T E N T I A L  
E Y R A N I D R O A R T X E X B W W  
D E L I A H G N I R I P S N I U I C  
S M I R G L I P A L I G N E D D U Q  
Q S W A B X D A R I C R L B R D D Z  
D E T E R I O R A T E L M S Z H R P  
K D R M M B S D M J C L I S N A I K

Find these words:

ALIGNED, ANCIENT, ASCENDING, BUDDHA, BUDDHIST,  
CIRCUMFERENCE, COMPROMISE, CRITERIA, DECLINING,  
DETERIORATE, EDIFICE, EXERT, EXTRAORDINARY, HAILED,  
HINTERLAND, IMPOSINGLY, INSCRIBED, INSPIRING, INTACT,  
INTEGRITY, MASTERPIECE, MONUMENT, PILGRIMS,  
POTENTIAL, RELIEF, RESTORATION, RITUAL,  
TACKY, UNSURPASSED

