

## Intisari

Candi Borobudur merupakan Candi Buddha terbesar di dunia yang ditetapkan sebagai salah satu warisan dunia (*world heritage*) yang dibangun pada abad 8 – 10 M dan terletak di Desa Borobudur, Kecamatan Borobudur, Kabupaten Magelang, Provinsi Jawa Tengah. Pada Candi Borobudur terdapat bagian-bagian candi berupa ornamen, relief, tokoh kayangan, maupun arca yang pembuatannya memiliki tujuan dan simbol tertentu. Hal menarik dari bagian candi tersebut yaitu Arca Buddha yang berjumlah 504 Arca dengan adanya perbedaan sikap mudra serta detail wajah antar Arca Buddha seperti bentuk muka, bibir, maupun mata, sehingga penelitian ini memiliki tujuan untuk menganalisis variasi wajah antar Arca Buddha Candi Borobudur, mengetahui adanya keterkaitan wajah Arca Buddha Candi Borobudur sebagai representasi penggambaran wajah manusia dengan suatu kelompok etnis tertentu dari Ras Mongoloid, serta menentukan kategori anatomi wajah Arca Buddha Candi Borobudur. Penelitian ini dilakukan pada Desember 2019 hingga Februari 2020 dengan subjek berupa data visual Arca Buddha Candi Borobudur sebagai data primer dan data visual wajah orang India Utara, Thailand, dan Asia Timur sebagai data sekunder. Metode yang digunakan berupa geometri morfometri dengan menentukan titik anatomis wajah bagian depan sebagai landmark dan dianalisis dengan menggunakan *Principal Component Analysis* (PCA). Hasil penelitian menunjukkan bahwa terdapat variasi detail wajah antar Arca Buddha Candi Borobudur, berdasarkan hasil analisis PCA penggambaran wajah Arca Buddha Candi Borobudur tidak memiliki hubungan dengan ketiga subjek orang Asia Ras Mongoloid, dan tipe wajah Arca Buddha Candi Borobudur berdasarkan penghitungan nilai *Facial Index* dikelompokkan ke dalam jenis Mesoprosopich yang mayoritas dimiliki oleh populasi Ras Kaukasoid.

**Kata kunci:** Candi Borobudur, Arca Buddha, Geometri Morfometri, Wajah, Mongoloid

## **Abstract**

Borobudur temple is the largest Buddhist Temple in the world that has been appointed as one of World Heritage by UNESCO, this temple was built in 8 – 10 Century AD and located in Borobudur District, Magelang, Central Java. In Borobudur Temple there are parts of the temple in the form of ornaments, reliefs, heavenly figures, and statues which are made to have specific purpose and symbols. The interesting thing about this temple is the Buddha Statues that have differences of the mudras and facial details such as the shape of the face, lips, and eyes. This study aims to analyze facial variations between the Buddha Statues of the Borobudur Temple, to find out if there is a relation between the face of the Buddha Statues in Borobudur Temple as a representation of human face with a certain ethnic group from the Asian People with Mongoloid Race, and to determine the face type of the Buddha Statues in Borobudur Temple. This study was conducted in December 2019 – February 2020 with the visual data of Buddha Statues in Borobudur temple as primary subject and visual data of North Indian, Thailand, and East Asian peoples as secondary subjects. Geometric morphometric method is used by determining the anatomical point of the face from frontal view as a landmark and analyzed using Principal Component Analysis (PCA). The results of this study indicate that there was The result indicate that there was face variations between Buddha Statues of Borobudur Temple, based on PCA analysis results the face of the Buddha Statues of Borobudur Temple did not have any relation with all Asian Peoples subjects, and the face types of Buddha Statues was grouped into Mesoprosophic based on the calculation of Facial Index values.

**Keywords:** Borobudur temple, Buddha statues, Geometric morphometric, Face, Mongoloid