ORIENTATION AND PROPORTION PRINCIPLES

OF

TEMPLES IN CENTRAL JAVA

by

LAI WING KHEONG GARETH
HD982525A

Submitted to the School of Architecture
On September 17, 1999 in partial fulfilment
Of the requirements for the Degree of
Master of Architecture

ABSTRACT

This paper deals with the systems of temple architecture that had been laid down in the ancient Vedic texts. In the light of such in depth studies that exist in the libraries, this paper is not an attempt to add to these many and varied takes on the temples of Java, but to build upon the studies of Stella Kramrisch into the temples of Hindu architecture to examine these temples against the established principles listed in the Vedic texts.

This paper examines two aspects of the principles of temple architecture. These are the Orientation of the temple with respect to the rising sun, and the Proportion of the building parts of the temple. Samples are taken from among the temples in Java built in the Central Javanese Period for these discussions. These samples should in no way be taken as exhaustive or representative of the entire collection of temples belonging the Central Javanese Period. It is not the objective of this paper to come to any conclusion about the results of the tests, nor is it a stand-alone take on the Javanese temples. It should rather be treated as a small part of the on-going research efforts into the temples in the region.

The traditional method of using the gnomon to determine the East West axis is touched upon briefly. Supposing the builders of the Javanese temples adopted this method, the angles or bearings of the temples are measured, and this is examined against the angle of the Sun’s path across the Earth. Possible explanations for the tilt of the temples are offered from the astronomical and geographical point of view. The

The second part of this paper is to take the proportions of a sample of five temples and test them against the types of temples based on proportions tabulated by Kramrisch in her book. This system of classifying the temples is largely based on a system of measurement and determination of prominent axes that had been established by other studies.

Dissertation Supervisor: Dr Pinna Indorf
Title: Senior Lecturer