

**ARCHITECTURAL TYPOLOGICAL STUDY OF CORAL STONE  
MOSQUES OF MALDIVES**

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## **ORIGINALITY DECLARATION**

I declare that the work presented in this dissertation is, to the best of my knowledge, original with the exception of that acknowledged in the text. I also declare that no part of this dissertation, either in full or part, has been submitted to any other University for the purpose of postgraduate studies.

## ABSTRAK

Masjid warisan di kepulauan Maldives dibina dengan menggunakan batu karangan laut yang diambil dari terumbu karang di sekitar kepulauannya. Masjid lama tersebut mempunyai ciri ciri senibina indah dan unik dihiasi dengan gabungan ukiran batu karangan laut beserta ukiran kayu 'lacquer'. Walaupun, pembangunan pesat di Maldives telah membawa perubahan yang ketara dan banyak memansuhkan warisan keseniannya, masjid warisan ini masih ada yang utuh dan aktif digunakan. Belum banyak kajian yang dijalankan tentang masjid warisan ini, justeru penyelidikan ini dijalankan dengan objektif untuk mengenal pasti jumlah masjid yang masih ada, mengkaji keadaan fizikal, pengaruh rekabentuk serta menganalisa tipologi masjid-masjid tersebut.

Kajian kualitatif ini dijalankan dalam beberapa peringkat pemerhatian, penelitian, dan analisa. Pertamanya kajian telah mengenalpasti bahawa kerajaan Maldives mempunyai 203 tapak warisan yang mana 46 daripada tapak warisan tersebut mempunyai sebanyak 51 buah masjid lama yang masih aktif. Kajian juga mendapati bahawa terdapat 40 buah masjid daripada 51 buah masjid tua yang tersenarai adalah masih utuh dalam keadaan fizikal yang berbeza beza dan 18 daripada masjid tersebut adalah dibina sepenuhnya menggunakan batu karangan laut.

Keduanya, kajian mendapati bahawa wujudnya pengaruh 'geo-culture' dalam pembangunan budaya dan senibina di Maldives. Telah dikenalpasti yang ciri-ciri rekabentuk istimewa masjid masjid lama Maldives ada persamaan dengan beberapa masjid di daerah Asia Selatan, Timur Afrika, Asia Tenggara dan Timur Tengah. Ini membuktikan bahawa pengaruh senibina masjid di Maldives adalah percampuran antara beberapa budaya daripada negeri negeri persekitaran Laut India.

Ketiganya, kajian telah dijalankan untuk mengenal pasti tipologi bangunan dengan menganalisa 21 buah masjid dan merumuskan bahawa terdapat beberapa ciri ciri rekabentuk dan senibina yang dikongsi oleh masjid batu karangan laut tersebut. Kebanyakannya mempunyai pelan lantai segiempat tepat atau segiempat sama yang terdiri daripada *Dhaala*, atau kadangkala mempunyai Bilik Mihrab. Rekabentuk lain yang dikongsi adalah lantai yang tinggi dengan anak tangga yang dicorak, atap berlapis dengan siling 'coffer' dan *Laage*., Antara ciri ciri khas yang lain adalah ukiran batu karangan laut beserta tulisan kaligrafi Arab

Kajian ini juga diharap dapat meningkatkan kesedaran, akan uniknya rekabentuk senibina masjid warisan di Maldives, justeru itu akan juga dapat meningkatkan usaha pengurusan dan pemuliharaannya.

## ABSTRACT

Coral stone mosques of Maldives are ancient mosques assembled using finely shaped interlocking '*porite*' coral stone from the reef, that have architectural features with coral carvings and detailed lacquer work. These mosques are among the earliest surviving buildings in the country where its cultural heritage is vanishing fast due to rapid changes and development. Little is known about these mosques, and the purpose of this research is to identify the surviving mosques, their state of condition, the influences in their evolution, and to establish a typology in terms of architectural features.

The research uses qualitative research methods with multiple surveys and analysis and firstly identifies the surviving mosques and the state of their condition. The research finds that the Maldives government has 203 heritage sites in an unofficial list out of which 46 sites have 51 ancient mosques. The research also finds that 40 out of the 51 ancient mosques survive in different states of condition and 18 of them are confirmed as mosque made from coral stone.

Secondly, the research identifies specific geo-cultural regions in the Indian Ocean that have influenced the evolution of the culture of Maldives and compares architectural features of these regions to those of the mosque. The research finds that different features of the mosque have similarities with structures in the South Asian region, the East African region, the Southeast Asian region and the Middle East and establishes that the mosques are a representation of the fusion of many maritime cultures of the Indian Ocean.

Finally, 21 mosques are analyzed to identify typological architectural features establishing that the coral stone mosques of Maldives are a type of tropical mosque with a spatial plan form that has a simple rectangular or square prayer hall with a combination of antechambers called *Dhaala*, sometimes with a unique *Mihrab* Chamber. Typical architectural features include the raised coral stone platform, decorated rising steps, tiered roof form, coffered ceiling with recessed area called *Laage'*, post and beam structure, unique arched sliding doors, diagonal lattice work on windows, special coral carvings, lacquer work and calligraphy.

The research contributes to improve future protection and management of the mosques by raising the awareness about their uniqueness and the state of their condition.

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## ABBREVIATIONS

BCE	Before Common Era
CE	Common Era
EIA	Environmental Impact Assessment
GOM	Government of Maldives
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICOMOS	International Council on Monuments and Sites
ICT	Information Communication Technology
NCLHR	National Centre for Linguistic and Historical Research
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHC	World Heritage Committee

## GLOSSARY

<i>Atoll</i>	group of coral islands
<i>Cholas</i>	ancient Tamils from southern India
<i>Coir rope</i>	rope made out of coconut fibre
<i>Cyprea Moneta</i>	scientific name for Cowry Shell used for money in ancient time
<i>Dhaala</i>	Verandah like antechamber around the prayer hall of mosques
<i>Dikka</i>	raised tribune in mosque for Quran recital or prayer recitals
<i>El-nino</i>	climatic pattern in tropics that changes ocean surface temperature
<i>Faros</i>	small atolls that rise within large composite atolls
<i>Hirigaa</i>	porite coral or boulder coral
<i>Holhu Ashi</i>	raised platform and shelter found in Maldivian Islands
<i>Hukuru Miskiy</i>	Friday Mosque
<i>Indian Moira</i>	part of north Goa, India
<i>Kursi</i>	stand for the Quran in the mosque
<i>Laage'</i>	stepped recessed part in the centre of the mosque ceiling
<i>Loammaafaanu</i>	ancient copper plate chronicles of Maldives
<i>Mahavamsa</i>	the great chronicle of ancient Sri Lankan Buddhist history
<i>Maqsura</i>	enclosed area near Mihrab
<i>Masjid</i>	mosque
<i>Medrepore ashlar</i>	type of stony coral cut to neat blocks for construction.
<i>Mihrab</i>	part of the mosque facing towards Kaaba in Mecca
<i>Mimbar</i>	pulpit in the mosque
<i>Miskiy</i>	mosque
<i>Moodhuge</i>	house built on sea
<i>Odi Haruge</i>	shelters for boats
<i>Porites</i>	type of coral stone
<i>Redin</i>	according to Maldivian folklore, ancient mysterious people
<i>Rihaakuru</i>	Maldivian fish paste
<i>Sangam period</i>	ancient Tamil period in south India
<i>Thelhigaa</i>	coral rubble
<i>Veligaa</i>	sedimentary coral sandstone

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- Annex 2 Details of field survey of 21 coral stone mosques