CHAPTER 10

CONCLUSION

The thesis entitled, "A critical study of structural spaces and built forms of Kerala Temple ārikovils with special references to Apsidal Forms" is probably the first endeavour in the field of researches on Kerala temple ārikovils.

Temples were built in Kerala even before the Christian era. The built forms of ārikovils of Kerala had undergone series of evolutions through centuries. The authors of text books on temple architecture from 15th century AD referred to the previous works, compiled, modified and adopted the concepts, canons, principles and practices suitable to the region from socio-cultural, climatic, geographical and forms of worship.

Kerala temple ārikovils differ from those in other regions of India in several ways. The ground plan shapes of Kerala ārikovils are restricted to few regular shapes. Most of the ārikovils are square, few of them are rectangular and circular, very few apsidal and
very rarely polygonal (mainly octagonal and oval) shapes. The garbhag"has where the
main deities are installed are small, as the entry into it is restricted. The Kerala ġrikovils
are mostly single storeyed, rarely two storeyed and very rarely three storeyed. There is
only one ġikhara on the ġrikovil. The roof structure is mostly of sloping spacial structure
roofed with tiles or copper plates. Recently concrete roof is being adopted. The
mouldings, niches, and alankiras are simple, progressive and unique. St Epstein are
provided on the ketas on the roofs in most of the ġrikovils.

The principles and canons are strict in the planning, design and construction of
temple ġrikovils, yet have flexibility for adoption. Every element is defined by proper
measurements and proportions integrated into the whole system. The measurements
provide the grammar, the proportions the rhythm and the decorations provide the
elegance and aesthetics. The varieties in spaces, forms and decorations provide
uniqueness to each ġrikovil.
The review of literature has been done under the sub heads of basic texts, modern texts and specific to the topic. Eighty-nine books are reviewed. The main events/elements are listed, the main contents given in brief and essential references are provided there of. The main references are based on Tantrasamucaya (Silpabhīga). There are variations/additions given in other texts. The texts give the cannons and concepts in loka form. Effort is made to tabulate the contents in very brief and provide various references appropriate to the sub groups for easier understanding, references and further studies.

The ēri Kovil, the praja has unique interior and exterior. The main shrine is installed in garbhagāha inside the ēri Kovil. There are several classifications of ēri Kovils given in various texts based on shapes, spaces, forms, decorations, position of the deity, location, measurements, combinations of various spaces and forms and materials used for construction. The structural spaces considered in this study include the horizontal
and vertical spaces. The horizontal spaces include the plan shapes, sizes and interior arrangements. The vertical spaces include the three dimensional spaces provided by the heights and number of storeys. The shapes, spaces, elevations, mouldings, niches, alankāras and artifacts dictate the overall forms.

Indians knew apsidal forms and the geometry even before 2000 years. The shape, space and form are different from other regular shaped ārikovils in the case of apsidal ārikovils. Literature regarding the planning, design and construction of apsidal ārikovils are limited. The general features, peculiarities and analysis from the angles of structural spaces, forms and decorations of apsidal ārikovils are provided in the study, which would be useful for future references. Out of 28 apsidal ārikovils came to be known, 22 ārikovils were taken up for case studies and 21 ārikovils were considered for comparisons. The ground plans of these ārikovils and photographs of most of these may serve as useful documentation. The discussions on the case studies under the groupings
of structural spaces, forms, decorations and materials of constructions give insight into the details of these apsidal ėrikovils. The main differences of apsidal ėrikovils from other regular shaped ėrikovils are the plan shape, interior and exterior spaces, the garbhagṛhas, antarālas, mukhamandapas, the exterior elevations and the number of kētas and sṭēpis and the like. There are differences in the case of aspect ratio, axes of symmetries, degree of difficulties in the construction and variations in the decorations.

The data collected from published works regarding the antiquity, shapes and spaces account for about 7200 ėrikovils. The data collected from tantries account for 2837 ėrikovils and that from vistu experts account for 3251 ėrikovils. There may be overlaps. However, the weighted averages provide reasonably reliable results. Discussions were held with tantris, vistu experts, engineers, stapatīs, ālipins, pējakas, temple authorities and knowledgeable persons who could provide valuable information. The main reasons for the long and sustained life of ėrikovils expressed by the tantris,
viṣṭu experts and engineers are more or less in agreement. Most of them are in agreement for the adoptions of modern technologies, methodologies and management with in the concepts of temple viṣṭu. The influences of various styles of other regions are evident in Kerala ērikovils though the tantris and viṣṭu experts feel that styles are purely unique to Kerala.

The strong needs for unification of scales, unification of viṣṭu cannons and principles with modern engineering, documentation of temple ērikovils by authorised bodies, studies on the structural and engineering aspects of ērikovils with the aim of attaining economy of resources, time and effort emerged through the study.

The engineering discussions have paved the way to new dimensions in the approach to the study. The factors contributing to the sustainability, stability, strength and durability of temple ērikovils have been discussed with fresh approach. The suitability of the shapes, spaces, forms and strengthening measures of ērikovils to
sustain the seismic effects are highlighted. The ancient science of building temple ērikovils very closely agrees with the modern engineering and vice versa.

The diversities created through the varieties in the structural spaces, forms and decorations to create uniqueness have been highlighted with examples.

The study being probably, a pioneering effort has its own uniqueness, fresh out look and innovative ideas. The study would be helpful to those who desire to do researches/studies in such or similar topics. It would also be useful to those who are interested in such studies, may be vistu students, teachers, engineers, architects and stapatis. The study could contribute to the body of knowledge in the structural spaces and forms of Kerala ērikovils in general and specially in the case of apsidal ērikovils.

The study may be taken as the beginning of fresh approach to the study of Kerala temple ērikovils with respect to their structural spaces and forms. It has become evident that further studies are required on such topics.