SRI LANKAN VERNACULAR ARCHITECTURE
AS AN APPROPRIATE RESPONSE TO THE
BASIC FORCES IN BUILT ENVIRONMENT.

A CASE STUDY ON VERNACULAR ARCHITECTURE IN
RATHNAPURA DISTRICT

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<td>Different house forms, in different culture (foreign)</td>
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<td>Rathnapura District</td>
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<td>Harvest paddy Stored at higher Level.</td>
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<td>From ground to protect from Dampness.</td>
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<td>Openings of the Kitchen. Preparation. And stores are kept towards the courtyard.</td>
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<td>15</td>
<td>All foundations are height About 3 Ft. from ground level To protect from dampness And Termites attach.</td>
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<td>Mahagamuge Pahalagedara “Galge” Front elevation</td>
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<td>17</td>
<td>No any openings on the East and West Sidewalls for extremely protect from Direct sunlight and horizontal rain.</td>
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<td>18</td>
<td>Used environmental Friendly materials In order to Highlight living Wt.</td>
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<td>19</td>
<td>Used very large timber Sections. Walls (2Ft thick) Made by using Rubble with mud as bonding material</td>
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<td>20</td>
<td>Round Columns in the middle Of the front verandah</td>
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<td>Up stair “Soldaraya” entrance,</td>
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From front Verandah.

22 Entrance is located South Side Direction
23 See Through The building Three doors
   Located in one Line.
24 Foundation 3 Ft. in Height
   From ground Level To protect From
   Dampness and Inserts attach.
25 Front Verandah Create a
   Calm and Quite Environ
26 Small Opening From east
   To prevent From glair While getting The natural Lighting.
27 Get the Maximum Natural lighting
   From East side Wall.
26 Used clay tiles as Floor finishing Material
   For get the maximum Comfortable From natural Environment
29 View Of The Old House
30 View of the new house
31 Old house use as a store
32 no any openings on east-west sides walls
33 Plinth of the old house and new house from Rear.
34 Materials used for old roof, rafters- round
   shaped timber Reapers-"veraniya Kotu"
35 Wattle and doubt Wall construction in
   Old house, High plinth against dampness
36 Small opening on considerable height above
   Ground level only for ventilation. (Old house)
37 Extra elements required preventing 1
   From direct sunlight falling from East Side. (New house)
38 Ruwanpura National College of Education At Kahawaththa
39 Micro concrete tiles not suitable for climatic variations.
40 Corridors open to the outside. Subjected to the
   Horizontal rain.
41 Entrance lobby from main road Opened to
Natural environment, No comfortable to the eye according to the glazed floor finish.

42 Corridor of the Main lecture room. Glare reflected from Tiled floor finish.

43 All window sashes are covered with Sheets of newspapers. The girls hostel. "Wrong orientation"

44 Disturbing to the greenery

45 Built up to sill height

46 Demolished all valuable trees

47 Against with environment

48 Plinth as a energy conserve element in traditional built form.

49 Takes natural light and ventilation trough courtyard.

50 Maduwanwela Walawwa

51 High pitch of the roof.

52 Verandah

53 Traditional buildings fully covered by the vegetation.

54 Stone, clay, mud, timber.

55 Openings were placed so as to cut down the solar radiation

56 Highly responded built form to the climatic conditions

57 The roof is the significant climatic element

58 Material consumption was minimized using natural elements

59 The gap between roof and the wall

60 Touching the earth lightly using human labor unlike today

61 New construction near Mr. samarasekara house

62 Using uncomfortable Materials

63 Built against with environment
INTRODUCTION
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It is widely achieved that the built environment is made as a resulting of three basic forces; namely social technological and environmental. This has the conformed by the well-known researcher Amost Rapoport too. Early people built their living space as response to the basic forces in built environment. They lived in vernacular houses, which were very close to the nature. Building materials used were not harmful to the dwellers. Vernacular architecture in Sri Lanaka indicates regional pattern and type, which were created in different basic forces of respective regions. This study is on attempt to understanding vernacular architecture as a response to the basic forces.

Building orientation

Building forms

Use of materials

Construction technology

The above will be studied in depth. The vernacular architecture is not only a response only to basic forces, but also a masterpiece of beauty, physical and social functionary.

JUSTIFICATION OF THE TOPIC

Current situation in Sri Lanka is seems to be developing past in terms of the built environment. When we consider this most aspects are not good in related to the human comfort in living environment. This is worst in case of Rathnapura district. Especially according to gem industry more new buildings are immersing. Also in terms of government building projects more and more construction is taking place. (Eg: Ruwanpura national collage of education, New Bus stands at
But all of these buildings are not good in considering conditions, which related to the human comfort. This is resulted as because the inappropriate and inadequate response to the basic forces in built environment. Even though we can find very good examples in this area with good conditions of living environment, which belongs to the vernacular period, it is essential to do an analytical study of vernacular building about how they have responded to the basic forces. The vernacular can provide new models by reworking traditional forms, to live with nature.

OBJECTIVES
Several research works on Sri Lankan vernacular architecture have been carried out, but all most all of that have failed to contribute towards improve the local architecture. This is worst in case of Rathnapura district. When no informal at all over available. The objectives of this study are to investigate the Vernacular Architecture of Rathnapura district in depth, with emphasis on the primary forces; and see to the possibilities of adopting those in modern context to improve living conditions and environment. Rathnapura district, which has divers climatic environment and technological condition, is an ideal model for a study of this nature.

METHODOLOGY
1. Understand regional variations and principles of vernacular in Rathnapura district by examine following

   Selected case studies from different region

   Literature and document review
Understand the change and development that take place during the recent past.

2. Obtaining information about the remaining vernacular houses from knowledgeable persons.

3. Examination of the construction projects and design proposals available of vernacular elements in progress.