

Abstract

This research aims to explore how to apply Thai characteristic in subdivision housing projects. The study frameworks include 6 topics as follows: 1) the past Thai characteristic; 2) development of housing projects which apply Thai characteristic features; 3) factors influencing house form; 4) related design theories; 5) design studies. Those factors involved in using suitable Thai characteristic in subdivision housing projects with efficiency were investigated.

The study reveals that the past architecture of Thai houses was developed by taking into account surrounding environmental factors which have changed very much currently. The changes of the way of life and environment affect the control of air quality, temperature and solution of air and noise pollution. While the household size reduces respectively, the needs of infrastructure and private area are increasing. Hence, the way of using Thai characteristic must concurrently reflect these outstanding variables by integrating them into the design concepts. Using Thai characteristic in the current projects has changed from the origin of space planning, house planning with separate building areas and porch, and high space under the house raised on stilts. This is because of the limitation of spatial usage, budget and plot size. Moreover, other components such as roof shape, arch, pavilion, arcading, using color and compensative materials, are positively used in housing project development. Architectural form of the housing project design shows Thai's identity derived from the integration of design concepts and housing project business. This identity can be applied in recent projects and also in the future. It consists of 4 abstract and 5 concrete features which are composed of 27 minor components. Its applications in groups of component and show the differences of Thai characteristic in comparisons with original or traditional characteristic. Architectural components' applications to housing project design which show the different levels of Thai characteristic must consider consumers requirements regarding building form, function, business probability and marketing, and also consider

laws and regulations related to housing project. Data from interviewing housing entrepreneurs reveals that each factor depends on project's location and target groups.

The result of this research brings forth the development guidelines in using Thai characteristic in subdivision housing project design by applying design concepts and architectural components in suitable contexts. In this study, 2 proposed designs as prototype consist of: type 1, a single 2 storey house, plot size of 340 square meters and usable space of 240 square meter: type 2, a single 2 storey house, plot size of 280 square meters and usable space of 176 square meters, with construction cost of 11,000 baht per square meter. These examples of house design are located at Thanam Nonthaburi, Bangsri Meuang, Nonthaburi province and specified land price is 8,750 baht per square meter.

The development guidelines for the application of Thai characteristic in subdivision housing projects as proposed were improved by comment of experts and entrepreneurs in housing projects that use Thai characteristic in design in the attempt to find out the suitable design guidelines for the application of Thai characteristic in subdivision housing projects.