

The Social Assimilation of a New Architectural Proposal for Comfort

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Abstract

The case history is of a community called “La Cañada” which is found in the municipality of Huixquilucan, Estado de México, Mexico. It is a village not far from the eastern edge of Mexico City and thus subject to strong social and transcultural pressures. A covering based on textile fibres was proposed for an experimental building in the aforementioned village. The design of the covering took into account relevant climatic factors such as temperature, humidity and rainfall. A double roof was proposed which would attenuate extreme low temperatures and at the same time be impervious. The whole proposal was made considering the villagers, especially their average income (to assure economic feasibility). Statistics for the population were consulted: age distribution, gender, religion etc. with a view to grounding the proposal in their local needs. However, during the development of the proposal, a question arose: are we really designing for this population or are we assuming that they will appropriate the suggested materials and will they identify with our objectives of lower energy use and greater sustainability? This was the objective of the research herein presented.

Initially a comparison was made between the official Environmental Education in Mexico and that with which the population has been imbued. Following this a traditional characterisation of the place and how it was changing in relation to what the inhabitants considered to be their ‘ideal’ in terms of spaces and forms, or what architectural elements occur in their dreams of the future. The work is based on the results of statistical analysis of questionnaires. Two types of questionnaires were developed which correspond to two different objectives. Focus groups were organized to allow a result close to reality to be obtained.

The first questionnaire was multiple choice which allowed a fast application. This was oriented to find out what was the ideal architecture that the subjects would want some day, and to map what for them was Environmental Education and if they had a commitment and awareness with regard to Ecology, Energy and Sustainability. This questionnaire was applied at the 10% level (52 questionnaires) in the same proportion as the distribution of age and gender that the National Institute for Statistics and Geography (INEGI) reports for the village (discarding children under ten years

of age, considering that they don’t yet have a structured reply to this type of questionnaire).

A second questionnaire consisted of questions that concerned the feeling and perception of an architecture of the type proposed and whether the subjects would adopt the proposed roof design. To achieve this couples and families were invited to stay in the prototype dwelling during two days. A total of five families accepted the invitation, amounting to thirteen villagers corresponding to 2.5% of the population. The second questionnaire was applied to these subjects.

The necessary data was obtained and analysed to reach a conclusion. The conclusion was surprising and saddening in that it was realized that Environmental Education and architectural proposals with energy efficiency were not part of their everyday language. In reality they didn’t consider them a priority and some didn’t know their meaning although they had heard of them mentioned “on the telly”. For them their status relative to their peers in the community was more important than to live comfortably, including indoor temperatures and humidity. Upon enquiring if they would reproduce the proposal in their own homes they clearly responded that only if all the community knew and that they could then ‘teach’ it. The most notable conclusion reached from this research was that in addition to proposing solar housing that is energy efficient and sustainable, the duty of researchers is to communicate not only to professional peers but also bring this knowledge to the Mexican population in general so that they can appropriate these proposals such that they are assimilated into everyday customs and behaviours.

This research has taught that very little has been achieved in public awareness of energy use in villages, nor has work been carried out in a coordinated manner to accomplish it (except for a few communities where organized groups have worked in them). In addition to the techniques and technologies, social work is needed to promote environmental education and “solar culture” such that it becomes an inherent part of the majority of social groups.

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