

The Center for Environmental Structure's (CES's) submission for the Proyecto Experimental de Vivienda represented one of the first examples of the Center's development of project specific sets of design principles, or pattern languages.

CES had only been officially formed in 1967 with a grant to develop what Christopher Alexander initially called 'Environmental Rules.' This unique process broke design down into a set of detailed problems through an analytical method.

In this project the members of the Center developed some of the key working methods that would define their unique, experimental design and construction processes. Using methods derived from cultural anthropology, they began by focusing on the community they were designing for, with special attention to the specific cultural context. They researched the interrelated elements of construction, economy, and ecology and developed construction methods that were site-specific, supporting local economies as well as sustainable choices of building materials. In the approach exemplified in this project, concepts of design and construction were integrally linked.

Their research informed the development of a system that would allow members of the community to not only inform design concepts, but to participate in the design and creation of their homes, and the ongoing production and adaptation of a living community and built environment. While the other competitors submitted large architectural plans, CES sent a book titled *Houses Generated by Patterns* that detailed the results of their research.

This project had various forms of influence. For the members of CES, it would become a step in the development of their groundbreaking book *A Pattern Language*, 1977, that would become one of the most widely read books on architecture ever published. This project would also form a basis for many years of work focused on low-cost housing projects around the world, from Israel to Mexico, involving residents in participatory processes that provided the possibility for them to imagine and create their own homes and neighborhoods.

The results of the PREVI competition itself exemplify the significance of this project. The jurors of the competition were meant to select three winners. Two of the winning entries were agreed upon by the judges. But the third winning entry became a matter of such serious disagreement that three of the judges submitted a 'minority report' quoted here:

*"The undersigned are in complete disagreement with the majority on the two projects, as follows:*

*Herbert Ohl's is a personal regimented and expensive solution both as to dwelling units and site plan. It is inhuman.*

*Christopher Alexander's (Center for Environmental Structure) attacks the low-cost housing problem with special application to Peruvian conditions and resources in an imaginative way far above the level of the other projects. It is the only project which effectively meets the program requirements to develop new ideas and techniques for low-income housing. We particularly commend it for emphasizing in every design decision the need to provide freedom of individual choice.*

*We strongly urge the UN to publish this milestone in low-cost housing design as it is - now, so that it may benefit the many in all countries who need and are awaiting new and better answers.*

*The highly complex problem of low-cost housing in Peru, as in many other countries all over the world, is perhaps not a practical subject for an international competition. Unanimity cannot be expected on a problem still so far from being effectively attacked, let alone being solved. We wish to record our opinions of the aforesaid two international projects in the hope that they may be useful to others who may share our disappointment with the results of the competition.*

*Herbert Ohl's exemplifies a philosophy of design which we deplore as the basis for determining a living environment for free families of individuals...*

*Christopher Alexander, on the other hand, throws a bright new light on a gloomy subject. A freshness of approach, a commitment to the dignity and world of the individual, a recognition and understanding of the complex linkage between this individual, his family, his belongings, his neighbors,*

*and the entire community are implicit in each part of the proposal. On the mundane practical level, they met well the requirement to provide a building system to use the fewest standard components to provide the maximum variety and choice of solution. The technical proposals indicated a balance between innovation and assured practicality. We believe that in the context of present Peruvian building practice, the proposed bamboo and urethane structural components as well as the sulphur components, while neither all original, nor yet proven were much more in the spirit of the program than appeared to be recognized by a majority of the jury. The workability of the concept, however, is not dependent on any or all of these technical proposals and in our opinion, even if only presently proven materials and methods are used, the outstanding quality of the overall submission remains unimpaired.*

*Fortunately for all others needing low-cost housing (though it may have worked against them in this instance) their presentation was also innovative in the form of a booklet in both English and Spanish which included their plans and argument well related.*

*Carl Koch, Alfredo Perez, Hallador Gunnlogsson*

(Architectural Design, April 1970, p. 189)

Because of the controversy, it was decided that there would be no winning design for the PREVI contest. Instead, selected proposals were given housing clusters to develop, while the main site plan, made by the Peruvian government with the help of UNDP, used a combination of ideas from the competition submissions various proposals. CES designed one of these clusters.