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# FORUM

## Notes on Architectural Education and Affordable Housing
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Architects have yet to respond or adapt to the changes in the home building industry that took place in the first half of this century. I will set out the traditional and current role of the architect in the homebuilding industry, and the means by which architects may redefine architectural education and the profession in such a way as to improve the quality of housing socially and esthetically.

Before the development of the speculative developer as builder, individuals seeking to build on a parcel of land contracted with an architect not only to design the structure, but also to oversee the entire building process. The design of houses was therefore an intricate personal affair between user and master builder, and the result was a profession geared towards "custom" houses. In the first half of this century, the market for freehold housing was expanded to include families living without extended family members. Following the Second World War, the market was expanded further still, and the evolution of speculative development was the vehicle that allowed the rapid growth of freehold family housing.

The "master builder" has no place in mass market housing. He has been replaced by technologists, draftspersons, and general contractors. In addition, the architect resists taking part in this industry, because designers in this area are seldom identified, and because of the risks associated with not being paid royalties on additional units built from an original plan, or of not being paid at all in the event of an economic downturn. In housing design, architects would prefer to continue to design along 19th century lines. Unfortunately, the proportion of the market taken up by project development housing is increasing and is expected to continue to do so in the 1990's. Developers on the other hand are inclined to avoid architects or reduce their involvement, because architects are ill trained to respond to the needs of the homebuilding industry. The only answer to this situation is for the profession to redefine and retrain itself to make a place for itself in the new homebuilding industry. Architects must show developers that their services are not only required, but also advantageous.

In order to redefine the profession, we must first look at the education of the architect. It is my thesis that too few architecture students are given the opportunity, nor are they encouraged to pursue the specific areas of knowledge required for housing design. We must expand the number of disciplines taught to include cost, practicality, planning, economics, sociology, and building technology. No design scheme for housing can be successful if it is not grounded in the workings of both the building industry and society. By giving future architects a complete understanding of the factors that are needed to develop design which are successful for society, we will enable them to develop strategies for design that are not compromised by practical considerations once put into practice.

We must expand the time and effort put into research. If a housing design is to have any chance of success, students must learn to identify both the nature of the potential users (family size, makeup, etc.), their tastes and requirements, and the technological methods available for maximizing the satisfaction of the users. Project lengths should also be extended to include the execution of working drawings. It is only at this level that students can see how decisions about detail can change tremendously the cost of a design. Detail is its own level of design which should not be left untaught.

Related to the teaching of design is the application of technology and materials to the design of structures. Under the current system, technology is taught in a manner that is detached from the design process. Students are then left to combine the two without any guidance as to how best to make the combination. Specific to the design of housing are the needs to develop client profiles, and options based design strategies. By treating clients as a group of persons and families (rather than treating the professor as the client, as is the usual practice) we can explore a vast new area of design: that of creating structures that are flexible in response to the needs of the user.

As a subset of architectural study, we must also consider the specialized multidisciplinary requirements of the teaching of design for affordable housing. Design must be expanded to the urban planning level, because cost saving strategies are far more effective at a larger scale. Building single houses is always expensive, which is why subdivision development has evolved. Designers of affordable housing must look at the larger picture of mass development if they are to integrate their ideas between the level of the family and the community. Sociological considerations must include emerging lifestyle patterns. Design for groups includes the design for the elderly, design for single-parent families, and so forth. By examining the development of societal trends, we can learn to create designs that will be adaptable to such trends over time. The total homebuilding industry should be understood if one is to develop ways of modifying it. A study of economics must examine not only the cost of building, but also the cost of capital, i.e. borrowing. A study of risk analysis for the development of housing is similarly a way in which architects can change design into a positive element for the developer, rather than a necessary evil. Marketing is also an area of specific interest to the designer of housing. We must learn to adapt inexpensive materials and methods into attractive designs. For too long we have assumed that such materials and methods are a compromise, rather than offering potentially new and exciting design opportunities.

These changes in architectural education would go far towards bringing the profession up to the present. But what of the future? Changes are expected on the socio-economic front with the aging and retirement of the "baby-boom" generation. It is expected that housing for seniors will occupy the concerns of government and individuals. It is very likely that affordability will continue to pose a threat to home ownership in North-America in the 1990's and beyond. On the technological front, the development of modular manufacturing and user-computer design may once again threaten the existence of architects in housing. If we are not to give up on the field, we must be active participants in research into developing innovative technologies, and we must shape their development. We must also learn to function in and contribute to the homebuilding industry.