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JOHN F.C. TURNER

## Housing as a Verb

### The Problem of Standards

THE MOST COMMON OBJECTION to changes in public policy which would increase the user's control in housing at the expense of central institutions is that standards would be lowered as a result. The standards the objectors have in mind, however, are not something which *can* be achieved with available resources but, rather, represent the objector's own notion of what housing *ought* to be.

The fact that the enforcement of unrealistic standards (unilaterally defined as the minimum acceptable) serves only to worsen the housing conditions of the poor raises the basic issue in housing—that of its meaning and value for people. The emotions which this universal aspect of housing problems stirs up prove its close association with deep human and cultural values.

The minimum standards for housing, building, and planning to which I refer are those which specify *what* should be built, and, very often, they go a long way to determining *how* the subdivision, dwelling, or ancillary equipment should be built as well. Almost all official codes, in the wealthiest and poorest countries alike, require that a building plot be fully equipped with mod-

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ern utilities, and even with paved streets and sidewalks, before it may be sold to a would-be home builder. Even then the buyer cannot occupy his house until it is completed, at least to a minimum standard, which usually means separate bedrooms, an equipped bathroom, and a kitchen separated from the living area. An investment of this kind demands a mortgage loan, and if the property cannot be occupied until it is finished, or at least certified as habitable, it is extremely difficult for the owner to build it himself—he is virtually obliged to employ a general contractor or, more likely, to buy a ready-made unit in a speculative development or in a publicly sponsored project.

Subdivision codes of the kind and standard described above were instituted in Lima in 1915; these were followed in 1935 by conventional modern minimum standards for dwelling units. It is easy to anticipate the problems created by regulations like these in cities with large and rapidly growing low-income populations such as Lima (which is more typical of the contemporary world than the cities of Europe and North America). Insofar as such standards are enforceable, they price the great majority of would-be home builders out of the market, and even without the added discouragement of rent freezes, they inhibit legitimate, inspected, taxable private investments in low-income housing, whether for rent or for sale.

Hence it is not surprising to find that two-thirds of all new dwellings built in Lima since the early 1940s and over 90 percent in the poorer provincial city of Arequipa were put up by squatters or buyers of lots in clandestine subdivisions. Neither is it surprising to observe that since it became illegal to build tenements which the mass of the people can afford, those remaining have become grossly overcrowded while illegal shanty towns have proliferated. (I refer to conglomerations of rented shacks that must be distinguished from the *pueblos jóvenes* and the *urbanizaciones populares* consisting of owner-built dwellings of far superior standards.) In fact, housing conditions for the poorest fifth or quarter of Lima's population are far worse now than they were in the 1890s, and demand substantially higher proportions of personal income to boot.



Although building codes have made great contributions to human welfare in countries with high per capita incomes, their rigidity often contributes to a shortage of safe and sanitary housing. In many cities of the U.S., for example, owner-building is virtually prohibited, and in many more the administration of building codes is an important factor in the precipitate abandonment of older housing, so badly needed by the urban poor.

The disastrous abandonment rate of structurally sound but obsolescent housing—which each year in New York City alone currently amounts to the stock for a fair-sized town—is in part due to housing codes and their administration. A license has to be obtained in order to replace a defective roof, for example. But if the building is obsolescent, this may not be granted unless the entire building is brought up to standard and by licensed builders. Therefore, because the owner or a willing tenant is forbidden to do a job he would have been quite able to do, and very cheaply, an entire building is lost, thus accelerating the decay of the neighborhood.<sup>1</sup>

This begins to suggest that minimum specification standards are frequently, if not generally, counterproductive under at least two sets of conditions. First, when there is a significant gap between the levels of investment they require and the effective demand; and, second, when that gap cannot be closed with subsidies, whether through lack of financial resources or lack of will on the government's part.

If governments cannot, or will not, make up the difference between what housing laws require and what the effective demand can purchase, then why do they create these problems? Why is the common sense solution of allowing and encouraging people to make the best use of what they have treated as subversive nonsense by the technocratic and bureaucratic authorities? Why do these authorities and the institutions they control refuse to let people

<sup>1</sup> See, for example: the *National Urban League* and the *Center for Community Change*, The National Survey of Housing Abandonment, Washington, D.C., April, 1971, and George Sternlieb, *Abandonment and Rehabilitation: What Is to Be Done?* Sub-Committee on Housing Panels, Committee on Banking and Commerce, U.S. House of Representatives, 91st Congress, First Session.

live and move between the extremes of neglected, dangerous slums and residences suitable for middle-class Joneses? Why, in other words, are the “problems” so universally defined in terms of what people *ought* to have (in the view of the problem-staters) instead of in realistic terms of what people *could* have?

#### The Issue of Housing

The questions that end the last section cannot be answered without first analyzing the alternative meanings attached to the word “housing,” and identifying the different value systems underlying the problem of standards.

In English, the word “housing” can be used as a noun or as a verb. When used as a noun, housing describes a *commodity* or product. The verb “to house” describes the process or *activity* of housing. While the idea of housing as a collective noun is obviously associated with housing activities, the word itself does not generally indicate this fact. On the other hand, the activity of housing is difficult to conceive without including the houses promoted, built, or used.

It follows that the criteria for the measurement of housing will differ with the meaning of the word. The measures of housing products or commodities are, of course, the alternative physical standards commonly used (which may be the “specification” standards described above or the more sophisticated and open “performance” standards already adopted in some European countries and increasingly favored in the U.S.).<sup>2</sup> The measurement of housing activity, however, is another question altogether. Some components of housing action are clearly measurable—dwelling units, for instance. It is also possible and practical to measure financial costs, time invested, and even human effort. But the vital aspects of housing are not quantifiable at all. The

<sup>2</sup> See, for example: National Bureau of Standards Report Number 9850 *The Performance Concept: A study of its application to housing*, U.S. Department of Commerce, Washington, D.C. 1968, and the proceedings of the American Public Health Association Invitational Conference on *Health Research in Housing and its Environment*, Airlie House, Virginia, 1970.



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John F C Turner & Robert Fichter, eds Collier Macmillan, New York, 1972

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most important "product" of any human activity is, of course, the satisfaction or frustration of needs.

If there were simple or invariable correspondences between material products and human satisfactions (and frustrations) there would be no issue and the problem of standards would be easily resolved. As the later sections in this paper spell out in detail, there is, however, a very wide margin of independent variability between material products and human feelings and behavior. This is a truism in everyday life, but evidently not in the minds of producers, distributors, technicians, and administrators concerned more with things than with the people for whom they supposedly exist.

Given this independent variability of things and their human uses, it is perverse to attach human values to things or the measures of things. Yet this is exactly what is done in common housing practice. Housing problems are defined by material standards and housing values are judged by the material quality of the houses produced, or by the material quantity of related products, such as profit or equity. From the viewpoint of a central planner or an official designer or administrator, these are self-evident truths. From such a viewpoint, more is better: more plumbing is better than less plumbing, more space per person is better than less space. Given all the local constraints, then, there will be an imperative for the establishment of standards that are minimally desirable or acceptable—in the view of those with the authority to make them, of course.

According to those for whom housing is an activity, these conclusions are absurd. They fail to distinguish between what things *are*, materially speaking, and what they *do* in people's lives. This blindness, which pervades all institutions of modern society,<sup>3</sup> explains the stupidity of tearing down "substandard" houses or slums when their occupants have no other place to go but the remaining slums, or are forced to create new slums from previously "standard" homes. This blindness also explains the monstrous low-cost projects (which almost always turn out to have very high costs

<sup>3</sup> An especially eloquent statement of this phenomenon is that by Ivan Illich in *Deschooling Society*, Harper & Row, New York, 1970.

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for the public as well as for the unfortunate "beneficiaries") erected for the evicted slum dwellers or others with nowhere to go (and these are not always in the lowest income brackets).

Standards of course have their uses; it would be impossible to plan or carry out any complex operation without them. But it is entirely improper to use them as *measures* of human value. If enough is known about a process or an activity, such as housing, then the standards and measures of things produced and used can be more or less accurate *indicators* of their values to the people concerned. In the final analysis, though, it is only the people who experience the activity and its products who can evaluate them.

In this paper, I am primarily concerned with the impact of housing activity on the lives of the housed, since these issues and problems must be better understood before the wider, secondary effects on society can be properly evaluated. Such an analysis is especially justified for activities which are relevant to personal life; that is, those which can act as vehicles for personal fulfillment, assuming that fulfillment and maturity in turn depend on personal responsibility for making decisions that shape one's own life. Housing is one such activity, as are all those on which the immediate ends of life depend: the cultivation and preparation of food, the clothing of ourselves, the care of our bodies, the procreation and nurture of children, and the sheltering of these activities. Other activities, essential as they may be, are less amenable to personal direction or direct participation: the installation and operation of major communications systems, for example, or dealing with any mass-produced and mass-marketed item, whether one is a factory operative, a distributor, or a consumer.

If this distinction between existentially significant and insignificant activities is not recognized, then what I consider to be the basic issues will seem irrelevant or meaningless; that is, the linguistic difference between housing as a noun and housing as a verb, and the political difference between legislating standard rules and executing standardized games.

These alternatives, naturally, have profound implications in all spheres. On the one hand, we will have, as we commonly do have,



supralocal agencies which plan for and provide for people's housing needs, with the result that the people so planned for and provided for turn into consumers or passive beneficiaries. On the other hand, if housing is treated as a verbal entity, as a means to human ends, as an activity rather than as a manufactured and packaged product, decision-making power must, of necessity, remain in the hands of the users themselves. I will go beyond that to suggest that the ideal we should strive for is a model which conceives housing as an activity in which the users—as a matter of economic, social, and psychological common sense—are the principal actors.

This is not to say that every family should build its own house, as the urban squatters do, but rather that households should be free to choose their own housing, to build or direct its construction if they wish, and to use and manage it in their own ways. In fact these are traditional characteristics of local housing systems and are still practiced by those with high incomes.

The vital difference between organizations which use people and organizations which are used by people raises crucial issues at the policy level. If local decisions are made by central bodies, those decisions are bound to implement more or less standardized programs and projects for particular social groups in particular places and at particular times. But if local decisions are made by local people, those decisions must be ordered and supported by institutionalized services which must be open to all, in all places and at all times, within the normative framework of those institutions. *PN*

Any housing system depends on a series of more-or-less-organized and institutionalized services, the number and complexity of which vary with the nature of the context. No house can be built and maintained without land, without tools and materials, without skilled labor (and management), and without an exchange system which allows the users to obtain the resources they do not possess themselves.

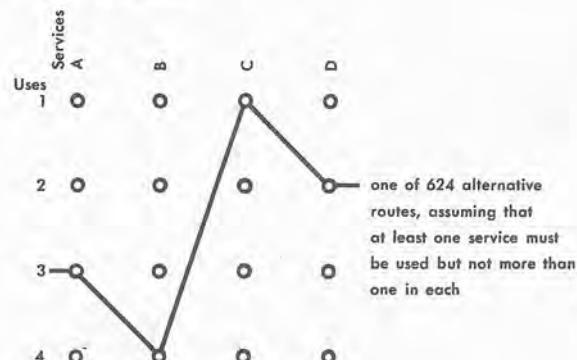
In housing based on open services, the builder, buyer, or householder is free to combine the discrete services in any way his own resources and the norms governing their use allow. In other

words, local executive decisions (and generally supralocal normative decisions) are fully differentiated. For the local decision-maker or user, the open service system has a high degree of, or the capability for, providing many different ways of achieving the same end—in the present case, the construction of a house. If, for example, each of the four basic services can be used in four different ways (or provide four different types or sets of components) then there are  $5^4 - 1$  or 624 combinations for a user who requires at least one of these services to build or maintain his home (see Fig. 4).

Figure 4 represents such a network composed of four services or submarkets, each of which, for the sake of a simplified illustration, provides four alternatives (choices between four sites, four ways of financing, four systems of contracting, and four sets of construction tools and materials, as described in the captions to

Fig. 4. *The Open Services Network*

Each of the sixteen points represents one standard procedure, of which there are four for each of four services.





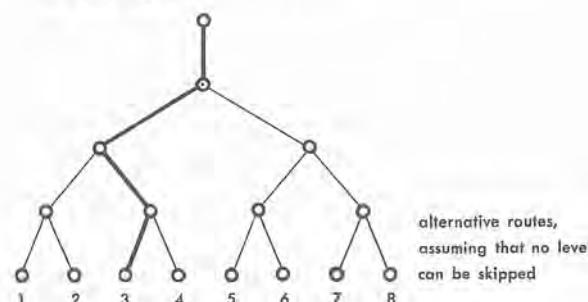
the figure). In reality, there would be many more alternatives in an agile and responsive market, at least for sites and alternative sets of tools and materials or individual building types. In the figure it is assumed that all the alternatives are compatible, although, in markets providing much wider ranges of choice, there would be many incompatible combinations—a single-family dwelling in a central city location, for example.

According to the definitions of this paper, a system is closed or limited to few uses and, very often, to few users when the local or supralocal decision-making powers are centralized. In the more extreme (and relatively common) cases of housing built or administered by public institutions or private corporations, all decisions are subsumed by a central directorate or administration (see Fig. 5).

Figure 5 represents the hierarchy which results when these rule-making and game-playing functions are concentrated in one person's or agency's hands. All decisions, in this authoritarian system, flow down from the peak to the base, at which level the prod-

Fig. 5. The Closed Project Hierarchy

Each of the sixteen points represents one standard procedure. These points bifurcate at each succeeding level in order to increase alternative responses.



ucts are received by consumers whose decision-making role is limited to a possible choice between a very limited number of prepackaged alternatives.

The illustration suggests a typical publicly sponsored housing project of the kind administered by governments of countries with low per capita incomes. Generally, only one major project is carried out at one time in cities other than the very largest ones. Often only one financing contract is offered, although the illustration assumes two (subsidized and unsubsidized mortgage loans). A choice of two contracting systems is also offered: aided self-help and general contracting. And, finally, under each of these contracting systems, two alternative dwelling unit types are offered. This relatively wide range of choices provides eight alternative combinations, probably about as many as any director of a centrally administered project would tolerate.

It must be recognized that the two housing systems define a spectrum rather than a duality, since there are many combinations. Most contemporary housing systems are mixed and lie between these extremes.<sup>4</sup> The conventional real estate developer and the increasingly popular sites and service programs for lower-income households in low-income contexts,<sup>5</sup> for example, provide package deals for these components, but leave the buyer free to design and build his own house.

In practice, a policy-maker must know what system or mix is the most appropriate in a given situation if his decisions are to be productive. An entirely open service system is wholly inappropriate for the aged or infirm (if they are obliged to be the direct users), and a closed project system is extremely frustrating for a

<sup>4</sup> *Ibid.*, Chapter 4: The Institutional Spectrum.

<sup>5</sup> Site and service programs are publicly sponsored subdivisions providing building lots and (generally minimum) services or utilities for low-income owner-builders. At the time of writing there is a discernible trend away from publicly sponsored low-income housing projects in low-income countries. This is partly because they have proven to be so costly to the public (the loss of 60 percent or more of the funds invested through the beneficiaries' failure to repay loans is common) and partly because of the far greater effective demand for land without dwelling units (which most low-income people prefer to build themselves anyway).



young family which wants to save money by building its own home.

The practical policy issues of feasibility are raised by such considerations and apply to developers, builders, and realtors producing for buyers of finished housing, as well as to producers of component goods and services for users who demand their own particular housing type.

In principle, if not in practice, the greater the degree of centralization or the larger the scale of the housing operation, the less economic it becomes, except in times of crisis or when the hierarchic system is essential for the generation of basic resources—an argument that anticipates the steps which follow and which is further elaborated in Chapter 11.

#### Housing Action as an Open System

Obviously, the agility and flexibility of a housing market depends on the openness of the system at all levels of production in order that the number and variety of producers and compatible and interchangeable products are maximized. In both material and human terms, the more open the system, the greater the potential benefits. The best results are obtained by the user who is in full control of the design, construction, and management of his own home. It is of secondary importance whether or not he builds it with his own hands, unless he is very poor.

As Grindley reports in chapter 1, the middle-, moderate-, and relatively low-income owner-builder in the United States often achieves first cost savings of 50 percent or more, and these savings are proportionally matched by many very low-income squatter-builders in countries such as Peru. A squatter with a suitable building plot and secure tenure can and often does build a house which would cost twice as much if it were built by a government agency.

Savings in first construction costs are considerably greater, of course, if operating expenses are taken into account; interest, insurance, taxes, and utility costs over a twenty-to-thirty-year period are about three times as great as the initial construction cost.

Mortgage carrying charges constitute the largest part of operating costs, and these are greatly reduced when the principal is halved (or, as in the case of squatter "progressive development," mortgage financing is eliminated altogether).

The human side of the account is much more difficult to assess. Most, if not all, who have observed or experienced owner-building agree, however, that user-controlled housing (when it is also materially economic) is far superior as a vehicle of personal, family, and social growth or development than housing which is merely supplied.

Once again, the worth of the physical product cannot be assumed to lie in its physical qualities, but rather in the relationships between the object and the user. These relationships change as the conditions of the household vary; as the dwelling itself is altered through improvement or deterioration, modernization, or obsolescence; and through changes of use and market value as the urban context changes.

In other words, if housing is perceived as functions of what housing *does* in the lives of its users—of the roles which the process plays in their life history—and not in the material qualities of the physical products, then the material worth of the objects and the manner of their production are entirely dependent on their highly variable uses. These uses, in turn, vary along with the changing demands imposed by changes in the context, or in the location of the process in the same context.

This point is developed and clarified if stated in simple general systems terms. The equivalents (of the general systems terms) in our present discussion are shown in Figure 6. The simplest description of housing as action must include the actors, their actions, and their achievements. This process, which is really simultaneous and not linear as the left-to-right notation implies, takes place in a context. The context will be altered to some extent, however, by the actor's actions; that is to say, by their achievements which become part of the context.

A further element is equally essential for a realistic representation of the process as a whole: the feedback loop, in this case the expectations which motivate the actors in the first place. No con-



Fig. 6. A Simple General Systems Definition of Housing<sup>6</sup>

This assumes that the context, including the products of the process, is different from the context which instigated it.



scious or complex action is likely to be taken unless those on whose decisions it depends expect the benefits to outweigh the costs of inaction.

Of course, several and often many actors or decision-makers are involved in any one housing action, and their interests can vary a great deal—some may be against the enterprise. But the balance must be favorable if it is to be carried out. In general, it is both necessary and sufficient to recognize three classes of actors: the private (and generally commercial) sector, the public sector, and the “popular” sector—the users themselves. Clearly the nature of the housing process depends as much on the relative influences of actors motivated by commercial profit, political power, and personal use as it does on the nature of the context determining the specific needs and means of all the actors.

It follows that the program of operations or the actions required by the actors is dependent on the cast and roles of the decision-makers, just as these are determined by what they can imagine

<sup>6</sup> This figure is an adaptation from Ludwig von Bertalanffy's description of a simple feedback scheme in his *General Systems Theory*, George Braziller, New York, 1968.

and expect in the situation perceived. Expected housing achievements consist not only of houses and other material parts of a dwelling environment, but also of the ways and means by which they are sponsored, designed, built, used, and maintained.

#### Demand as a Function of Expected Supply

It is clear from this schematization that there are a number of major and more or less independent variables that must greatly affect the nature of the process and its products. The key variable for the present discussion is the demand. Demand is a dependent variable of the anticipated costs and benefits of the action and products required to meet the demand; that is, the felt needs of the actors and the means they possess *and are willing to invest*.

In authoritarian or hierarchic systems, the user has no significant control over the nature of the process or the form of its products, yet certain processes and the life of the product nevertheless depend on the users' willingness to support the maintenance costs of the original investment.

Where the housing supply does not match the home buyer's or renter's demands well enough to generate the will to pay or to care for the property, the seller or landlord depends on coercion. This can take two forms: direct police power or reification through propaganda, which tries to persuade the consumer that what he really wants is just what the producer is selling him and that value lies in the product rather than in its usefulness. Which of these two ways of enslaving man is the worst is a much-debated question. For the present purpose, however, we can wish the plague on both these authoritarian houses, and build some hope on the fact that excessive police power and excessive advertising are far too costly for most nations' economies.

Those who are poor in material fact but who are not socially degraded simply because they live in a poor society are relatively impervious to reification. The typical Peruvian urban squatter, for instance, must be highly pragmatic if he is to capitalize on his very small savings margin and his relatively limited skills. The many thousands of families with very low incomes who have



built themselves homes that have potential or even actual market values amounting to five years' income or more—double the usual limit—are sufficient proof of this. The typical Peruvian squatter has also proved that he—and even more frequently, she—is also highly resistant to the exercise of police power. This has often taken the dramatically literal form of pitched battles between squatters and riot police. The existence of hundreds of squatter settlements surrounding cities such as Ankara, Manila, and Nairobi, as well as Lima, provide further evidence of squatter stamina.

People already hooked on totalitarian systems or forced to depend on them need little additional coercion to accept a standardized housing package—the mere lack of an alternative is generally sufficient. But as the margin between income and subsistence living costs shrinks, housing demands lose their elasticity, and individual priorities become increasingly rigid. The demand for residential location near work places, for example, can be so rigid in cities like Calcutta and Delhi that the very poor will sleep on the street rather than accept a subsidized house on the periphery.

Middle-income households, with incomes five or ten times the minimum needed for survival, can afford the diseconomies of unsuitable housing and can often compensate for them by means of alternative expenditures. If the only dwelling available to middle-class users is poorly located, for example, they can compensate through the use of automobiles or telephones, while these luxuries are far beyond the reach of the vast majority in countries with very low median incomes. The lower the income level, therefore, the better the match must be between the demand and the housing process, if both the household and the housing economies are to be maintained.

We need to provide an analysis of housing costs and benefits in order to explain why the human and material economy of the housing process depends on a precise matching of people and their dwelling environments, especially in the context of low or very low income populations. When the values of housing are sought in the material characteristics of the dwellings produced, it is hard or impossible to explain the apparently "irrational" behav-

ior frequently complained of by administrators of low-income housing programs. Why do so many poor households resist paying what they are quite able to pay for physically improved housing? Or when minimal rents, or even when no rents, are charged, why do they so often let their environments deteriorate to virtually uninhabitable levels?

The wealthy have traditionally avoided the real issues of authority and autonomy by convincing themselves that the poor are congenitally ignorant, incompetent, and feckless—an absurd notion in any context and impossible to maintain in the face of the enormous housing achievements of the urban poor in cities such as Athens, Lima, or Seoul.<sup>7</sup>

The apparent paradox of the simultaneous existence of bankrupt or rapidly disintegrating low-income housing projects and flourishing and rapidly developing squatter settlements in the same city and occupied by people with similar characteristics is difficult to explain if *conventional premises are accepted*. The reluctance of families to pay for, or even to maintain, apartments in subsidized projects is baffling to the observer with conventional views when confronted with the fact that the same families make extraordinary sacrifices in the building of their own homes.

However, when the basic issues of the meaning of housing and the significance of autonomy are recognized, the paradox is easily

<sup>7</sup>In these three cities, which are typical of a wide range of countries with low per capita incomes and undergoing rapid urbanization, between a quarter and a third of the entire metropolitan populations live (at the time of writing) in squatter settlements or illegal subdivisions where they have built, or are in the process of building, their own homes. In countries with these characteristics—with at least one third of the world's present population—squatter settlements, or other forms of autonomous urban growth, generally increase at twice the already very fast growth rates of the cities as a whole. For a general review of these developments in the Third World, see the author's paper on *Uncontrolled urban settlements: problems and policies* in the International Social Development Review No. 1—Urbanization: development policies and planning, United Nations, New York, 1968; reprinted in Gerald Breese, ed., *The City in Newly Developing Countries*, Prentice-Hall, 1969. See also William Mangin, *Latin American Squatter Settlements: A Problem and A Solution* in the Latin American Research Review, Vol. II No. 3, Summer 1967; and Aprodicio Laquian, *Rural urban migrants and metropolitan development*, Intermet, Toronto, 1971.



explained. Either the self-sacrificing squatter-builders have in fact achieved what they want or, failing that, are making the best of a situation for which they accept full responsibility.

#### Material and Existential Needs and Priorities

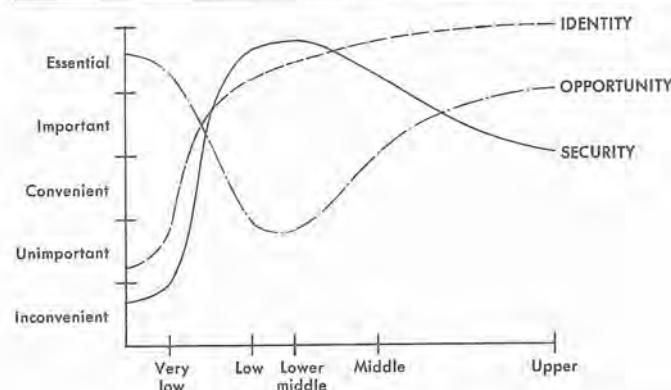
The quality of the *shelter* provided by housing is only one of the specific functions of housing. All the functions are dependent variables of human goals which particular households have at any particular place and time.

*Location*, in addition to the material standard of the dwelling unit, is now generally recognized as an equally important factor in housing. The significance of alternative forms of *tenure* and the significance of physical, emotional, and financial security, on the other hand, has yet to be understood by most authorities.

Even those authorities and housing analysts who do recognize the independent variability of priorities for high standards of shelter or comfort, for locational convenience, and for secure tenure—and who therefore reject dwelling unit standards as a measure of housing value—cannot easily explain or anticipate the wide variations of housing choices and action observed. Particularly wide variations in the housing priorities of the lower- and lower-middle income groups are evident in most, if not all, cities. Members of this generally large and rapidly growing sector of modernizing cities can be found living in almost all residential sectors and in a very wide variety of dwelling types and with all forms of tenure—from squatter tenancy to the ownership of mortgaged homes.

This elasticity of lower-middle income demand and the generally narrower ranges of common priorities of the lower- and higher-income levels (both of which tend to be more rigid for both social and economic reasons) can only be understood if the roles which housing plays in the lives of the households are known. In addition to the specific and material housing functions or needs mentioned above, it is essential to identify the human or existential and nonquantifiable functions or roles which the housing process can play. If, by way of illustration, these

Fig. 7. Priorities for VITAL NEEDS x Income Level



are taken to be *identity*, *security*, and *stimulus*, or more appropriately in the present context, *opportunity*,<sup>8</sup> then it is much easier to interpret or anticipate housing priorities and behavior in any given context.

This simple but important concept is illustrated in Figure 7, which shows how priorities of most active or upwardly mobile households change as income levels change; in this case, in the context of contemporary Lima. It hypothesizes that the lowest-income sector will have a very high priority for opportunities to get out of that situation. The upwardly mobile very poor are generally young adults recently arrived in the city and are, therefore, far more concerned about future than present security; indeed, present security will be the last thing they want if, as is likely, it entails socioeconomic stagnation. Nor will they be particularly

<sup>8</sup> These suggested or illustrative factors are borrowed from Robert Ardrey's book *The Territorial Imperative*, Atheneum, New York, 1966, pp. 334–35; Ardrey, in turn, borrowed them from Abraham Maslow, ed., *Motivation and Personality*, 2nd ed., Harper & Row, N.Y., 1970. As Michael E. Stone has pointed out to me, some distortions and inconsistencies have crept into the interpretations which make it doubly important to emphasize the illustrative and tentative nature of the set of terms used.



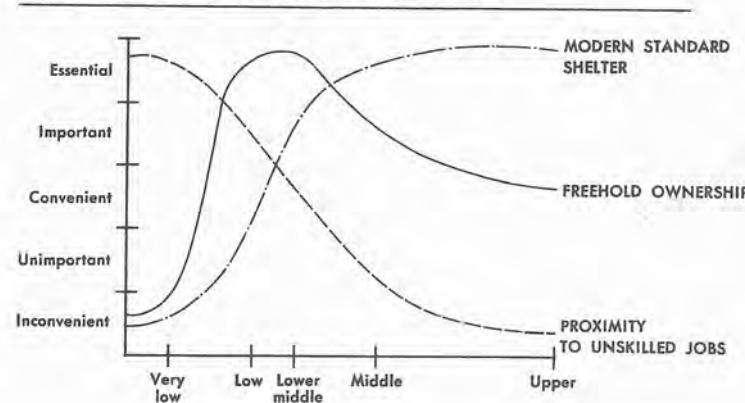
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concerned with personal status or identity, for a certain facelessness or anonymity is often a better way of getting on in contexts of dire poverty than aggressive individuality.

It would be tedious to describe the changes of these existential priorities in detail through each significantly different socio-economic level. It is enough to point out the remarkably different orders of priority for the lowest-income sector, the "upper-lower" sector (which a large part of the urbanizing population achieves and at which they tend to remain) and the upper-middle or upper-income sector, which is that most familiar to readers.

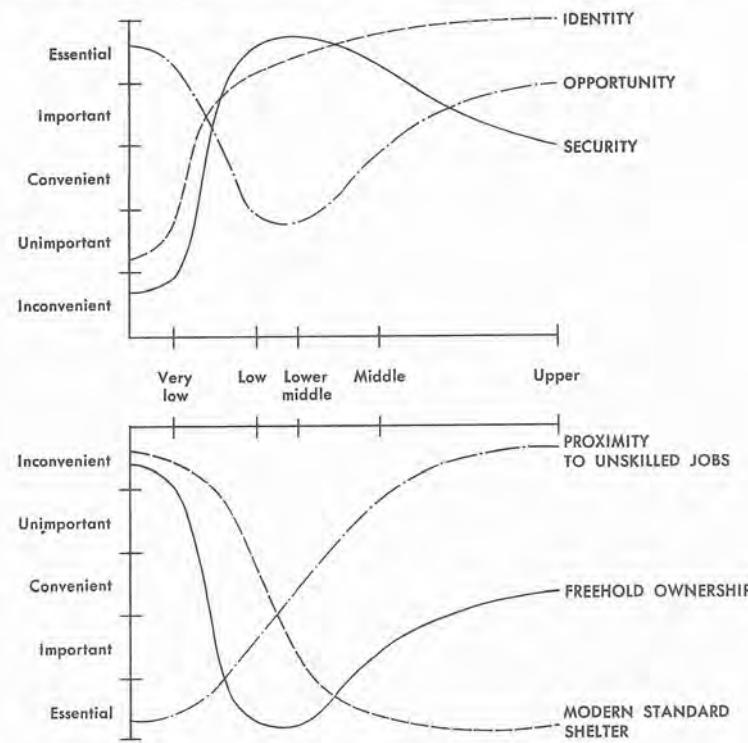
After some years, the previously very poor and young migrant family has usually doubled or trebled its income, and the principal wage earner acquires a skill and a more or less steady job in the normal course of events. With dependents and with a much improved economic status to lose, the somewhat less poor ex-migrant has a very different order of priorities: security will be far the most important determinant of his longer-term plans; opportunity will be less important for the head of the household, although it may still be very important for the children; identity or social recognition will also be more important to him and

Fig. 8. Priorities for HOUSING NEEDS x Income Level



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Fig. 9. Matched Priorities



may increase if opportunities for higher incomes shrink as time passes.<sup>9</sup>

<sup>9</sup> For further elaboration of the relationships between environmental change, socio-economic mobility, and housing needs and priorities, see the sources quoted in footnote 5 to Chapter 6 (page 131) and the author's paper *A new view of the housing deficit*, in *Housing policy for a developing Latin American economy*, Charles Frankenhoff, ed., University of Puerto Rico, 1966. Reprinted in David Lewis, ed., *The Growth of Cities*, Paul Elek, London, 1971.



The common order of these basic priorities for an upper-income family of modern middle-class status will be different again; while security is often very important in the mind of the middle-class professional, say, his situation rarely calls for as much concern in this area as in the case of the lower-class worker, at least in contexts such as Lima. Social status and opportunities for both economic and social advancement, on the other hand, are commonly given the highest priority.

With this understanding of the varying priorities of a family's existential or vital needs, it is relatively easy to anticipate its specific demands for housing. If specific housing needs are defined in terms of another set of three universally present functions—location, tenure, and shelter—then priorities for particular expressions or forms of these elements of housing can be derived from the underlying vital priorities, providing that the context is known.

Figure 8 shows a complementary interpretation of priorities for the above-defined specific needs: location in terms of proximity to inner-city areas (where the greatest diversity and intensity of low-income employments are to be found); tenure in terms of the relative importance of freehold ownership (either de facto or de jure possession without mortgages or liens of any kind); and priorities for shelter in terms of the relative importance of conventional minimum standard dwelling units (permanent structures with separate bedrooms and modern conveniences).

When the two analyses are placed side by side, as in Figure 9, their complementarity is evident. If their correspondence appears unreasonable or illogical, then it is likely that one interpretation or the other is at fault and both should be checked. It is also clear from this approach that the observer can start his analysis either from the evidence provided by the housing action of the housed or from deeper studies of motivation and social behavior. Alternatively, and perhaps preferably, both approaches should be used in concert.

From this double-sided picture, anyone who knows the context well enough will be able to point out which alternative dwelling environments are in fact available to a given sector at a given

time. If the basic and specific needs are well defined and accurately interpreted, and if the observer has information on the housing resources available from the private, commercial, and public sectors, as well as those possessed by the users themselves, then he can prepare a viable cost-benefit account and make a reasonably accurate prognosis of housing action.

#### The Impossibility of Authoritarian Solutions to Real Housing Problems

At this point it is helpful to return to the systemic definition of housing action. It is now clear that the "expectations" feedback loop should be split in two: one for materially measurable, specific housing needs and the other for the nonquantifiable, basic, vital, or existential needs which underlie them. Figure 10 shows

*Fig. 10. A Modified General Systems Definition of Housing*



the complete expression, which helps us to avoid the fundamental error of confusing human ends and material means.

This rounded-out representation of any particular housing action or class of actions, when read in conjunction with the analyses which led up to the differentiation of vital and material needs, highlights another side of the issue of feasibility. Not only does the present analysis show that authoritarian housing systems are impractical in economies of scarcity, but it also suggests, very strongly, that a true match between housing demand and housing supplied by central institutions is politically, if not economically, impossible in economies of abundance and scarcity alike.



One only has to consider for a moment the number of more or less independent variables we have so far identified in order to boggle the mind with the immense number of possible permutations and combinations. Even if there are only half a dozen types of location in a given city, and the same small number of alternative forms of tenure and of house plans, we have 6<sup>3</sup> or 216 specific housing types. Even if this theoretical number is reduced by eliminating impractical combinations (such as single-family dwelling units in central city areas), the substantial residue must still be multiplied by the number of ways in which the dwelling can be sponsored, built, used, and maintained. And even then we have only dealt indirectly and partially with the other components of the dwelling environment. Unless types of location are to be specified in much greater detail to provide a much larger multiplier, another series of multiplying factors must be added.

To pursue this calculation is a waste of time, however, as there is no conceivable reason why an authoritarian system would give up methods of commercial and ideological persuasion. Although expensive, propaganda and police power would still be far cheaper than the immensely detailed surveillance required if a method of the kind I have outlined were to be used as the basis for centrally instituted housing policies.

This being so, there is no possibility that central institutions in low-income countries will attempt to abuse the methods outlined in this paper—should they prove to be of practical value when properly used. Before explaining this last and concluding part of the argument, the assertion that it is impossible to coopt local decision-making in economies of scarcity, through the analysis of individual demands or through the normal tools of authoritarian persuasion, must be more fully substantiated. If closed and authoritarian systems are as inflexible and therefore as inhibiting of personal and local initiative as I have suggested, then these methods are bound to be unproductive.

In an economy of scarcity, the mass of the common people, though poor, possess the bulk of the nation's human and material resources for housing. Their collective small savings capacity and their collective entrepreneurial and manual skills (and spare time)

far surpass the financial and administrative capacity of even the most highly planned and centralized institutional system, whether dominated by the state or by private capitalist corporations.

The commercial market for new housing in low-income countries such as Peru is inevitably limited to the minority who can afford the costs of imposed standards and, of course, the profits demanded by capitalist enterprise in inflationary or high-risk economies. The publicly subsidized housing supply is also limited by the generally very small budgets available for housing and related facilities.

If neither the organized private sector nor the public sector of the economy can provide new housing for a huge and rapidly growing population (which cannot possibly crowd into the initially small and diminishing supply of old housing in zones of transition), then needs must be met by the people themselves, the popular sector.

This third sector is, in fact, the major producer of low-income housing in most low-income and rapidly growing cities. Norms practiced or legally required by organized public and private sectors, but impractical for the mass of the people, are simply ignored. For example, if building land is restricted by private commercial speculation, it will be taken out of the commercial market through organized invasion if no other land is available, or if poor people cannot pressure the political authorities into expropriation on their behalf.

A popular sector capable of organized action on a scale the formally institutionalized sectors cannot control and composed of households whose housing priorities are relatively inelastic is, therefore, the dominant actor in the processes governing the production and maintenance of new housing in economies of scarcity.

In general it is far better that people should act outside the law than not act at all. Housing conditions are worse and, by implication, social and economic progress is least where the constraints placed by the organized or elitist public and private sectors are strongest.

The analyses and evaluation of policy makers will be greatly



influenced, however, by their political biases or assumptions. Those who assume that they know people's demands better than the users themselves, or those whose interests are best served by this assumption, will naturally favor authoritarian closed systems.

In contrast, those who assume that the user is the best judge of his own demands (as distinct from his rights) will try to limit their participation to the administering of services which guarantee the supply of land, materials, tools, and skills to the users, together with credit for the purchase of these elements. He will therefore support open systems in which the output is the product of a dialogue between rule makers and game players, without which there can be no existential freedom.

#### Standard Rules or Standardized Games?

The practical policy issue, which defines the problem of housing standards, lies in the choice between the elitist and authoritarian assumption that technicians and managers know what is good for people, and the humble acceptance of a pluralist and genuinely democratic system. In assuming that free people are the only real judges of what they need and of what they can do for themselves, I belong to the second of these two incompatible and necessarily warring groups.

My argument rests on the premise that there is no existential or real freedom without dialogue between the rule makers and the game players. As in chess, any one of the infinite number of games we can play is the product of an implied dialogue between those who set the rules ages ago and today's participants. To round out the analogy, an authoritarian housing system would amount to a pseudo-game in which the pieces are moved for the players. In this situation the intended players become pawns, and the real game is between the commercial and political powers that dominate instead of serve the people for whom they ostensibly exist.

Since hierarchic systems for such complex and personally important activities as housing are impotent in economies of scar-

city, there is reason to hope that, at least in these economies, this fact will be generally recognized. In such situations, the rapid improvement of material housing conditions and the conversion of public investments in low-income housing from burdensome social overheads into vehicles for social and economic development can only come about through the extension of open housing service networks.

Governments of low-income countries have only two real choices, once they have lost or abdicated the power of suppression: they can ignore the process and abandon any serious pretense of planned urban development or they can support local action through public service institutions designed to help the mass of the people make the best use of their own resources in their own ways.

After an examination of the nature of housing as an activity involving particular people or actors, their organized activities and the costs and benefits of the process and its products, it is evident that the democratic alternative is the most desirable one in any context, and the only feasible one in an economy of scarcity.

If governments in countries with low per capita incomes wish to avoid the disorder and diseconomies of unplanned direct action by squatters and clandestine developers (who are the major suppliers of low-income urban housing in these contexts), then their housing strategies must change. The only way of reversing the present deterioration of housing and the collapse of viable urban development is for governments to redirect their relatively scarce resources away from the conventional, and now discredited, closed housing projects and into the development of open housing service systems.

#### Summary and Conclusion

To conclude the thoughts presented and to preface the work that must follow if the main points are accepted, we must return to the problem of standards stated at the beginning of this paper and reexamine it in the light of the issues raised.

Conventional minimum standards for housing were accused of



worsening rather than improving material housing conditions—dramatically so in economies of scarcity. It was hypothesized that this counterproductive behavior is a consequence of the conceptual error of understanding housing as a noun and of identifying values and objects instead of understanding housing as action and seeing values in the roles that procedures and products play in people's lives.

In the analysis of housing that followed, the reasons for the failure of conventional housing action—of programs and projects for the replacement of substandard dwellings—were shown to lie in the mismatches between people's needs and the housing supplied by institutions. The immense variability of individual household's needs and the inelasticity of low-income peoples' housing demands creates a difficult situation for any government; the satisfaction of housing needs by central institutions is an impossibility for governments with very small budgets and faced with rapidly growing masses of people with very low incomes.

As housing action depends on the actors' will and as the dominant actors in economies of scarcity are the people themselves, they must be free to make the decisions which most concern them. In order to make the best use of scarce housing resources, most of which are in any case possessed by the people themselves, each household must have an adequate choice of alternative locations, of alternative forms of tenure and, of course, of alternative structures and ways of building and using them. People who do not have these freedoms in housing are generally unable to use housing as a vehicle for their existential ends. If they cannot hope to get the combination they need, they will tend to minimize their housing action by doing and paying as little as possible.

While hierarchically organized or authoritarian corporations and bureaucracies cannot respond to the true heterogeneity of low-income housing demands, a network of discrete services can. This network needs and uses both institutions and standards, but in nonauthoritarian ways. By separating the legislative function of rule-making and the provision of social and economic services from the free use of those rules and services, or the execu-

tive function of game playing, it is entirely possible to ensure that things made, and the ways in which they are made, are of value to their users. Where social institutions guarantee the availability of the essential elements or pieces and order the ways in which each one may be used in relation to the others, then, like chess players, every game we play can be unique and will in any case be precisely adapted to our own capabilities.

I have used the game of chess as an analogy for the housing system. The game cannot be played without rules and without the authority that drew them up in the first place. In a game or activity as complex as housing, it is inconceivable that a set of rules as perfect as those of chess should ever be achieved. The authorized institutions must be constantly active, therefore, adjusting the rules to previously misunderstood conditions and to new conditions that arise with ever-changing circumstances.

Housing standards are no more the measures of housing values than the standard moves of chess pieces are the measure of a game. Both are indicators or descriptors of what takes place, and the informed observer can read them and know the quality of performance just as the engineer who reads the dials on the control panel of his machine. One measure or indicating needle may tell us nothing on its own. Similarly, we must know how much money the inhabitant of a slum has, what his expectations are, and what his alternatives are, before we can be sure that the slum, alleged or actual, is doing him more harm than good.

The problem which drew our attention to the issues and questions discussed in this paper is that standards have not worked at all well for most people in the contemporary world, whose average incomes or levels of material consumption are about one-twentieth that of most who will read this paper. It is obvious that we do not understand the games we are trying to regulate with the rules we institute.

In my own view there are two things we must do now: we must give up the futile or destructive attempt to impose our own will and we must support those who are fighting to regain the authority our executive institutions and corporations have usurped.