John Turner's book is about housing, but it is also about the basic things in people's lives, the forces that control them and what people themselves are able to control. As Colin Ward says in his Preface, Turner is "something much rarer than a housing expert: he is a philosopher of housing, seeking answers to questions which are so fundamental that they seldom get asked."

Similar in many ways to the works of Ivan Illich and E. F. Schumacher, *Housing by People* also expresses the belief that networks of people can take hold of their own surroundings and order them intelligently without experts to decide what they need. Turner shows that in housing a most basic part of our daily environment has escaped our grasp. Using examples from underdeveloped as well as developed countries, he describes the kind of housing that has been imposed upon people by their governments and sets it against what individual communities can achieve when allowed to help determine the housing they will have. He argues convincingly that housing policies need not be dictated by central governments but can be put under local control. This is not to say that housing must be left to free enterprise or that modern technology should be abandoned; Turner maintains that local communities can be given access to national resources for meeting their own needs.

John F. C. Turner is now an independent consultant on low-income housing policies and teaches architecture in London. For many years, he was at the Harvard/MIT Joint Center for Urban Studies and was a lecturer at MIT.
Who will decide how basic life needs are to be satisfied? Government agencies? Giant corporations? Or people themselves? These questions have been asked in the fields of education and health care. Today they are being asked with a special urgency in the field of housing as well.

As Robert Fichter writes in the Preface: "This is a book concerned with the activity called housing. From a variety of perspectives, the authors examine the participation or lack of participation of dwellers themselves in that activity. Their conclusions... are that as dwellers lose control over their living environments, shelter becomes a commodity of decreasing value to the individual and often an inordinate expense to society."

The authors, experienced in various fields and in many countries of the world, expose the wastefulness of institutionalized housing and show, by contrast, how self-fulfilling and productive the housing process can be when the user is in control.

The answer to the universal dissatisfaction with mass housing (and to the literal bankruptcy of many public housing projects in the U.S.) is provided by individuals, community groups, and other grassroots organizations which have brought back dwellers' traditional freedom to sponsor, build, or simply to manage their own homes. Housing is a paradigm of all human activities. Some approaches to housing are models of how those activities can be perverted. But when the user is in control, those activities can begin to achieve their natural expression.

William Grindley shows how 160,000 U.S. families, of all income levels, annually build their own homes, saving 1/3 the construction costs of equivalent commercially built homes. Richard Spohn details legislation to support and extend the network of locally (Continued on back flap)
has gone, and continues to go abroad to pay for oil and investment profits to big city financiers. On the other hand, most of the money spent on the far cheaper, pleasing, adaptable and convenient houses has gone and continues to go to small builders and artisans, and far less money goes to financiers and manufacturers of imported high-energy materials and equipment. Thanks to the freedom which the locally controlled system has given to the people to decide and even to build for themselves, the demand for local labour is maintained and the benefits stay with those who have exercised their own imagination and initiative, skills and responsibility.

3. THE VALUE OF HOUSING
What it does versus what it is

In the first two chapters I argued that the construction and maintenance of adequate housing, at prices people and society can afford, depends on the investment of resources which households themselves control. This argument has been based, in part, on the observation that the willingness of people to invest their energy and initiative and their savings or other material resources depends on the satisfactions they experience or expect as a result.

For large organizations to provide adequate housing, they must standardize procedures and products in order to operate economically. By necessity this conflicts with the local and personal variety of housing priorities which this chapter examines. It will explain how it is that the larger the organization and the more centralized management becomes the more frequent and the greater the mismatches are bound to be between people’s housing priorities and the housing they get. As the mismatches increase, so does the users’ dissatisfaction. As a result, their investment of local and personal resources decreases and other resources must be found as substitutes. These are generally heavy equipment and complex technologies suitable for centralized organization which they further reinforce. As these demand high proportions of scarce and increasingly costly resources, such as fossil-fuelled technologies and highly paid bureaucracies, financial inflation is inevitable. Any further streamlining of centrally administered housing systems to reduce costs only exacerbates what is becoming a vicious cycle where only the very wealthy or a heavily subsidized minority can expect to be adequately housed.
This and the next two chapters deal with the questions of values and standards, the economies and costs they help to determine, the demands and structure of authority that both generate society’s values and economies and that are reinforced by them. These issues and problems are illustrated by the experience of ordinary people in common situations. Similar cases can be found in most contemporary urban contexts and I could have used examples from Ahmedabad or Boston. But the Mexican studies are more detailed and have been selected more rigorously, as well as being from a context that is neither exceptionally rich nor very poor. The case studies are from work-in-progress by Tomasz Sudra at MIT at the time of writing. This work is part of a long-term programme of research we initiated together in 1971.

Twenty-five in-depth case studies of moderate and lower-income households in metropolitan Mexico have been methodically selected from surveys to represent the common range of social situations and physical environments. Some of the poorest dwellings, materially speaking, were clearly the best, socially speaking, and some, but not all of the highest standard dwellings, were the most socially oppressive. One is shown in Fig. 19. The shack was occupied by a young car painter temporarily supporting his wife and small children as a ragpicker. The house (Fig. 20) was occupied by a sick and semi-employed mason, his underemployed wife and their student son. The shack was a highly supportive environment for the car painter’s family, while the house was an excessively oppressive environment for the others. This apparent paradox, created by false values and confused language, is a very common one, especially in the majority of low-income countries as well as, and perhaps increasingly, in countries like Britain.

Fig. 19. The provisional shack of a car painter’s family temporarily dependent on rag-picking in a garbage dump in Mexico City. Being rent-free and close to work, urban facilities and relatives, this materially very poor dwelling actually maximizes the family’s opportunities for betterment.
Fig. 20. The modern standard house of a semi-employed mason, his unemployed wife and their student son. This materially high-standard dwelling, isolating the family from its sources of livelihood and demanding over half its income for the (subsidized) rent-purchase and utility payments, minimizes opportunities for betterment.
The supportive shack

There had been a series of unusually wet seasons in Mexico so that paint drying took too long and the turn-over was too small for the car painter to make a living. In order to keep going, the family had moved in with a comadre (Godmother) who gave his family the use of her backyard and the facilities of her own house for as long as they needed it. The comadre was a pepenadora, or rag-picker, who had been allocated a new house when the shanty town by the dump, in which she and her neighbours and fellow rag-pickers previously lived, was eradicated by the public authorities. As a leader among the pepenadores, the comadre was able to give the car painter access to the dump from which he was able to make a fair living. The car painter was earning about 900 pesos, or approximately 20 per cent more than the absolute minimum for subsistence — just a little more than what is subsequently referred to as a subsistence income.1

1In the sense used in this essay, a person, family, or household (living in a cash economy) has a subsistence income when they must spend between 80 and 90 per cent on food and fuel alone if they are to eat well enough to keep themselves in good health. Close observations in Peru, corroborated by evidence from Mexico and other contexts, suggests that the poorest can often avoid payment for other essentials. Housing can be free through squatting or doubling up with friends or relatives (as in the case described in this chapter) and the journey to work may be made on foot. In many cases, the official ‘minimum wage’ is roughly the equivalent of a subsistence income for a family of median size in rapidly urbanizing countries (two or three adults and three or four children). As this version of a subsistence income is cross-culturally applicable to urban economies it is a convenient unit of income measurement permitting comparisons between totally different contexts without complicated and often misleading calculations of monetary exchange rates. A growing body of empirical evidence also suggest that there are some widely applicable generalizations with regard to multiples of the subsistence income unit. In Indian, North and East African, as well as South and Central American contexts the income threshold between those who can and cannot afford housing to approved official minimum standards (remarkably similar in remarkably dissimilar countries) appears to be between four and five times the subsistence level as I have defined it. It takes about twice as much (8 to 10 times subsistence) to pay for a standard of living similar to that enjoyed by median income families in highly industrialized and urbanized countries.

Thanks to its rent-free accommodation, the family has a small surplus for saving toward its anticipated move, perhaps towards the purchase of a plot of land and the construction of its own permanent dwelling. The family pays its share of the utilities — its shack is supplied with electricity from the comadre’s house, and it uses the running water, washing, bathing and toilet facilities. In the relatively mild climate of Mexico City the poorly insulated shack is not too great a hardship as long as the roof keeps the rain out — which it does adequately thanks to the use of plastic and other materials culled from the dump. Together with the use of the enclosed and private backyard, the family has plenty of personal space for its domestic life. It is well located, both for work and social activities. There are shops and schools for the three children in the immediate vicinity, so little or no money has to be spent on transportation. Its security of tenure is invested in the compadrazgo (God-parent/God-child) relationship between the car painter and the owner-occupier of the property. As long as this relationship holds, the car-painter’s family is secure, and it is rare that such relationships are broken.

The car painter’s family is young. It is also optimistic about its future prospects and the couple are confident and self-respecting. Barring accidents and major depressions in the national economy — both of which are quite possible, of course, and are bound to be sources of anxiety — it is very likely that the family will greatly improve its social and economic condition in the course of the car painter’s working lifetime.

Being young, healthy and motivated by expectations of future achievements, the car painter household’s priorities are well matched by the housing services they have. They therefore need to maximize opportunities for the realization of the family’s hopes and expectations, and they make the best use of their surplus — in this case to save as much of their income as possible in order to be able to take
advantage of opportunities as they arise. A very common
opportunity could be a steady job that would justify
investment in a permanent home. This in turn, would
provide a substantial degree of security against risks of
accident, economic depression or political upheavals. The
family’s present strategy, therefore, is to minimize housing
expenditure. In order to do so, the family must be within
walking distance of the earners’ places of work and to other
essential services. The physical quality of the shelter is
secondary and almost anything will do as long as the health
of the family is not unduly threatened, especially by
contaminated water or exposure to damp and cold. As the
family is on the look-out for new job opportunities, which
may be in any part of the city or even in other cities, it must
be free to move at short notice. Meanwhile, of course,
continuity of tenure is important.

All these conditions are met by the car painter’s shack.
While the family would undoubtedly enjoy a higher
standard dwelling this is relatively unimportant. In fact the
car painter declined the comadre’s offer of a room within her
house as he did not want to risk damaging their
relationship. This materially very poor dwelling was
extremely well located for the family at that time; the form
of tenancy was ideal, giving them security without
commitment and the freedom to move at short notice; and
the shelter itself provided all the essentials at minimum
cost. The shack was, therefore, an admirable support for
their actual situation and a vehicle for the realization of
their expectations.

The oppressive house

The mason’s modern standard house is disastrously
unsatisfactory. Previously resident in a shanty town not far
from their present site on the edge of the city, this family
had been instrumental in pressing for rehousing when the
existence of the shanty town was threatened by the
government authorities. Before relocation in the Vicente
Guerrero public housing project (Fig. 20) the family
supported itself from a small shop serving tourists and from
the elderly husband’s irregular employment as a semi-
skilled mason. The family had a low income but with low
housing and transportation expenditures, it was able to eat
reasonably well and maintain a fair level of health. Their
reported income during the period immediately before the
move was about three times the subsistence minimum.

This family now lives in a vastly improved modern house,
equipped with basic modern services and conveniences.
However, this ‘improvement’ is endangering the lives of the
family members, and in human and economic terms has led
to a dangerous deterioration of their condition. Incredibly,
the family is required to spend 55 per cent of its total
income to meet the rent-purchase and utility payments. On
top of this, the working members must pay another 5 per
cent for public transportation to work – a total of at least 60
per cent of a reduced income on housing services alone.
Before the family was spending 5 per cent of a larger income
on their housing and journeys to work combined, and they
could both eat well and save a proportion of their total
income. Now, or at the time of the interviews in 1973, it is
hard to see how they can survive as long as they maintain
their rent-purchase and utility payments. If the assessment
of subsistence living costs are approximately correct, this
family is now forced to cut down its minimum food budget
by about 60 per cent.

This family’s situation would not be quite so bad if, in
addition to the dramatic rise of their expenditure, they had
not also suffered a substantial reduction of their income
through the loss of the vending business which is forbidden
in their new location. This double loss is typical of ‘housing
improvement’ programmes for low and very low-income
people. In spite of the anxieties created by overspending
(sometimes on household goods which they feel are
appropriate to their new surrounds) or the risks of eviction for rent arrears, people appreciate the comforts of higher standard homes. An unpublished study of rehoused squatters in Rio de Janeiro 2 confirms the common-sense expectation that people like comfort. In the Brazilian case some households that had given up paying rents that they could not afford were actually improving their flats. Laying down a parquet floor, for example, is a way of consolidating de facto tenure and a defence against eviction.

But it also confirms that the price paid is often disproportionately high and that much damage is done by dislocating people, by disrupting their economies, and by greatly reducing their social and economic security—far more than by allowing them to remain in materially poor surroundings.

Of course there is a danger that these facts can be used as an argument for laissez-faire. But they can also be used to argue for major changes of government housing and urban development policy. Changes in these conventional redevelopment programmes that appear beneficial but which, by evading the vital issues of building land and housing finance, are in fact instruments of oppression widening the gap between the poor and the rich.

The semi-retired mason’s household is an elderly one, in contrast to that of the young car painter’s. The mason and his wife were respectively 55 and 54 years old and had one son of 15. Their expectations for the future were low—at best the family could hope to maintain itself at a tolerable, if very low level. The husband was ill and unable to work at the time of the interview. The son was likely to split off and the elderly couple could not rely on their child for much support. Their main priority, therefore, was security. At their previous location in the shanty town—and like the car-painter’s family in their present location—the household optimized its budget by minimizing its housing expenditure. In its present (1973) housing situation however, the household is being forced to maximize its housing expenditures—not minimize them. Its budget is not a function of the household’s priorities but, rather, of external conditions which are imposing an economic behaviour contrary to the members’ interests.

In their previous situation there was a positive match between their priorities and their housing services. The family’s housing priorities were naturally for security of tenure and access to their sources of livelihood. As events proved with the clearance of their shanty home, they did not have secure tenure, but they did have immediate access to their main source of income—their stall selling to tourists. The mason had good public transport connections to areas where there was work. The family was also able to economize on housing as they lived rent free and had only to pay for electricity. They were therefore able to maintain their rudimentary but tolerable shack in order. They were able to feed and clothe themselves reasonably well, and most importantly, they could save for security in their old age.

In their present situation they have lost nearly all these advantages and they acquired others of secondary importance. They lost access to a major source of income and as events proved, were unable to maintain the absurdly high level of housing expenditure. This had a two-edged effect: not only were they less secure in their tenure than before, but they were also unable to provide for their approaching old age; and, of course, their food and clothing needs were sacrificed for the benefits of their greatly improved shelter. Whether the family was more comfortable or not, with the anxiety and hunger that they certainly experienced as soon as their savings were used up, is a not-so-open question.3

2 Barney Rush, *From Favela to Conjunto: The Experience of Squatters Removed to Low-Cost Housing in Rio de Janeiro, Brazil*, Unpublished Paper, Harvard University, 1974

3
The issue of housing value

If the usefulness of housing for its principal users, the occupiers, is independently variable from the material standards of the goods and services provided as the case studies and other sources show, then conventional measures of housing value can be grossly misleading. As long as it is erroneously assumed that a house of materially higher standard is necessarily a better house, then housing problems will be mis-stated in terms of the number of 'sub-standard' units 'needed' – that is, the difference between the number of households and the number of standard or above standard units occupied at acceptable densities in a given area and period. So long as these assumptions continue, it follows that the solution of such 'problems' is the replacement of sub-standard by standard or above-standard units. The evidence quoted above shows that 'solutions' of this kind can greatly increase the problems suffered by their intended beneficiaries. And this is an increasingly common observation in all contexts from Britain to Brazil where major 'slum clearance' and 'rehousing' schemes have been carried out.

This confusion and consequent error can only be avoided by recognizing the different meanings of 'housing' and 'value' and by using them properly. Market values are, of course, different from human values.

In English the word 'housing' means both the stock of dwelling units (a noun) and the process by which that stock is created and maintained (a verb). It is entirely reasonable to speak about the market value of houses. It is also entirely reasonable to speak about the human and social values of housing action, or housing processes. But it is absurd to mix these sets of terms and their meanings. As the cases show, the performance of housing, ie what it does for people is not described by housing standards, ie what it is, materially speaking. Yet this linguistic inability to separate process from product and social value from market value is evident in both commercial and bureaucratic language.

Social and institutional processes have many more or less quantifiable aspects; but, considered as understandable wholes, they are only partly quantifiable. Monetary or market values cannot be placed on them. And it is a disturbing sign of the decay of language and values in the modern world that official housing, building and planning terminology universally confuses the meanings of housing and of housing value.

It seems that all national and international housing and planning agencies mis-state housing problems by applying quantitative measures to non- or only partly quantifiable realities. Only in an impossible world of limitless resources and perfect justice – where people could have their cake and eat it too – could there be a coincidence of material and human values. For the present we must accept that as long as there are unsatisfied desires for material goods and services people must choose between the cakes they can afford to eat. So long as this fact of life remains, and as long as people's priorities vary, the usefulness of things will vary independently of their material standard or monetary value.

The vast majority of officials and professionals keep recommending the destruction of people's homes in order to solve those same people's 'housing problems' by providing them with alternatives either they or society cannot afford. In a world of grossly maldistributed resources and injustice, this is a huge, but very black joke.

---

3 Since the interviews with this family in 1973, the subsidy on cornmeal, the staple diet of the poor, has been withdrawn and the price of tortillas and bread doubled overnight. This family is no longer living in Unidad Vicente Guerrero – hopefully they were able to sub-let and re-establish themselves in a situation similar to the one they were moved from with the illicit proceeds.

4 John F. C. Turner, Housing as a Verb, in Freedom to Build, op. cit.
Such stupidities are inevitable as long as those who perpetuate them have confused their values and lost their common sense of life's wholeness.

Housing problems restated

Georges Bernanos wrote that there is no greater evil than a problem mis-stated. Problems cannot be properly stated, however, unless the underlying issues are understood. All the evidence presented in this book is to show that housing problems can be restated in the light of human values that must be placed on housing processes. Together, they provide entirely reasonable interpretations and indicate actions that are both feasible and desirable for all concerned with well-being.

The real questions are those of human suffering and pollution, as they are directly associated with dwellings, their provision, and their management. Quantitative methods cannot describe the relationships between things, people and nature – which is just where experience and human values lie. They may be essential for determining resource allocation, and as aids in identifying complex systems and their components, but quantitative methods can only indicate, not measure, non-quantifiable components – the human realities of housing. Only by standing Lord Kelvin’s dictum on its head can one make sense of it: nothing of real value is measurable.

Questions about the consequences of housing in people’s lives can only be asked in words that describe processes and relationships. Housing must, therefore, be used as a verb rather than as a noun – as a process that subsumes products. Real values are those that lie in the relationships between the elements of housing action – between the actors, their activities and their achievements.

I use an adaptation of Patrick Geddes’ (1877) and Bertalanffy’s (1948) general systems models as basic descriptors of any particular housing process in its context as a subsystem of the larger system or systems of which it can been seen as a part. Any subject matter of value must have three elements: people, the things they do, and the relationships between the two. Or, as Geddes expressed it: organism – function – environment (where function is the relationship and both organism and environment are acting on each other). In the simplest useful terms, any specific housing process can be described as the interaction of the people (or actors) and their products (or achievements) through the medium of their roles and responsibilities (or activities). As any such process must take place in a larger context in which the actors live (and have a multiplicity of other and independently variable relationships), in which their achievements exist, there are three other elements: the pre-existing context, the subsequently modified context, and the direct relationships between them which bypass the particular process. Bertalanffy’s simplified general systems model recognizes these direct relationships or feedbacks (and feed-forwards). In housing these are the actors’ future expectations from their past experience. Following Bertalanffy, these basic terms can be conveniently arranged thus (Fig. 21).

![Fig. 21. A simplified model for the housing process based on Geddes and Bertalanffy.](image-url)
It should be noted, however, that time does not flow from left to right so much as from the bottom up. Although there is a temporal sequence from existing to modified context, the three elements of the subject coexist and contextual modifications occur the moment an action is conceived.

Housing problems only arise when housing processes, that is housing goods and services and the ways and means by which they are provided, cease to be vehicles for the fulfilment of their users’ lives and hopes. As the cases described above show, this may have nothing to do with the relative material standard of dwellings. To be of any positive and constructive use, housing problems must be restated in terms that indicate burdens or barriers created by housing procedures, goods and services; or in terms of waste resulting from the failure to use available resources, or the misuse and non-use of resources.

**Values, measurement and indicators**

'To undertake to measure the immeasurable is absurd and constitutes but an elaborate method of moving from preconceived notions to foregone conclusions.'

Those who agree with Schumacher and reject the preconceived notions on which statistically defined 'housing problems' are based, and who therefore reject the conventionally foregone conclusion that houses of higher material standard are necessarily better than those with lower ones, must find an appropriate way of stating the problem.

The notion of quantifiable measures for human use values must be replaced by matching individual needs with housing – that is, procedures, goods, and services. As pointed out above, and as experienced by everyone who has to make a personal housing decision, the vital matches have to do with location and access to people and places, with tenancy and transferability, and with privacy and comfort.

Only the last item can be easily quantified and then the information can be grossly misleading, as already shown. Even if it were possible to quantify all these factors, it would be a useless exercise because one’s priorities vary, often considerably and very rapidly, as one’s situation changes. The quantities of houses, or forms of tenure, or even locations, tell us very little about the problems that households actually experience. If one already has a clear idea of the pattern of priorities in a given situation then, of course, these facts can be valuable indicators. They can point to the values of specific sets of housing procedures, goods and services, but they will not describe or measure them.

The obvious fact that use values cannot be quantified worries those who assume that housing can only be satisfactorily supplied by large-scale organizations. The immeasurability of use values is not in the least perturbing to the conventional capitalist. His value system can only admit the existence of market values in the sphere of commercial production, distribution and consumption. If what is good for General Motors is good for the country, then it must also be good for the citizen. The conventional socialist, on the other hand, has always been perturbed by the conflict of use and market values – and the more he or she clings to a faith in large organizations (and centralizing technologies) the greater the conflict becomes. On the other hand those who do not believe that large organizations can supply all people with personal goods and services, those who have neither a capitalistic nor an authoritarian outlook, need find no conflict or paradox. Material quantities and market values can be useful, even essential, indicators of use value, or of harmonies and tensions between supply and demand. But this principle can only be of use to those who see that the role of central administrations must be limited to ensuring personal and local access to essential resources – such as, in the case of housing, appropriate technologies, land and credit.

---

The real problem

In other words, to state the problem of housing (or of any other personal and necessarily local service) depends on who needs the statement and what it is used for.

If housing is treated as a mass-produced consumer product, human use values must be substituted for material values. Whether these are capitalistic market values or state socialist productivity values is immaterial. Both inevitably inhibit the investment of personal and local resources on which the housing supply itself ultimately depends – as explained in the first two chapters. However sensitive individuals in such heteronomous systems may be, they are locked into positions in which this contradiction is inescapable. But if housing problem statements are needed by planners and administrators of non-authoritarian and genuinely socialist societies, then their purposes are quite different. There is no inherent contradiction between the planners, needs and those of the people they serve.

As already pointed out and as will be explained more fully later, in a democratic and genuinely socialist context planning and administration are legislative processes limited to actions essential to establish and maintain an equitable distribution of resources. For centrally administered heteronomous societies, the quantitative information needed for such distribution is extremely complex, but in the case of non-authoritarian societies, the quantitative information needed is quite different and far simpler. All that the latter’s central planners need to know is the pent-up demand for resources and large-scale infrastructure (public utilities and community facilities) which cannot be provided at local levels. Instead of needing to know how many houses are or will be demanded in a given place and time or for a given social sector the planners and administrators need only know the approximate quantities of building materials, tools and labour, land and credit that will be required. So long as the rules within which building, management and maintenance take place ensure tolerable economy and justice, the local forms of these elements can be left to the people and the local entrepreneurs that serve them.

It is an unproven assertion that the problems which people actually suffer from – distortions of their household economies, social and geographic dislocations, insecurities of tenure or immobility, and discomfort and the lack of privacy – can be indicated by ratios and proportions of quantifiable factors. It is more of a working hypothesis, derived from my own studies in Peru in the sixties, and from the work of Tomasz Sudra and I have been carrying out in Mexico for the past few years. We have tentatively concluded that two sets of factors are needed: a financially quantifiable set, and another which cannot be given monetary values with any consistency or comparability.

Monetary factors

On the financial side, the significant factors are: personal household income in relation to the price paid (for rent or amortization and other running costs); the cost to the suppliers of the services provided (of land, buildings and their servicing), and the assets owned by the occupants. In a ‘planned economy’ there is supposed to be no such thing as ‘market value’ or assets in the form of ‘equity’ – the share of that value accruing to the owner-occupiers after paying off mortgages or other liens. But, in most cases, there is a market in personal property, including houses – whether officially recognized or not.

The car-painter family’s supportive shack shows a positive balance (Fig. 22b); the negligible price paid (a small contribution to his comadre as a share of utilities) is a positive imbalance with the household income – indicating, of course, a cost and possible imbalance for someone else, in this case, the comadre whose yard the shack is occupying.
Comparative Evaluations

The windmill diagrams show the balances and trade-offs, and the imbalances and stresses between the principal housing values in the case histories used to illustrate the argument.

One set (22b-f) shows the patterns of monetary values and the other (23b-f) shows the non-monetary value patterns. By separating these accounts and by highlighting the ratios and proportions of key values, the arbitrariness and distortions of conventional cost/benefit analysis are reduced.

Each set represents a value scaled in 5 intervals, from a very low value (A) to a very high value (E), through low (B), moderate (C), and high (D). Although these are given quantitative measures they are only approximate in most cases. The most significant information is in the patterns and especially in the matches and mismatches between the actual supply (shown solid) and the households' needs, priorities, or expectations (shown in outline).

Positive, negative, and mixed values of these mismatches are indicated by the corresponding signs. Mixed (+) values indicate positive for one sector and negative for another. Summary explanations are given in the captions.

Fig. 22a/22b

22b: The ear painter minimizes costs by living temporarily in a shack in order to maximize savings and future opportunities to realize expectations. The lack of fixed assets ensures mobility and is therefore positive in this case.

22c: The Mason relocates from a squatter settlement to a project suffers the consequences of an extreme mismatch of price and cost with income. There is no compensation in the form of equity although, as he and his wife are elderly, the security of a fixed asset is important.

22d: The factory worker in the progressively developing unauthorized settlement has a balanced housing economy with the advantage of disproportionately high assets. This reflection of inflated land prices is a cost to society as a whole.

22e: The employee in the same project as the Mason (22d) enjoys highly subsidized housing for which he is able to pay the economic price, unlike his neighbour. He benefits at society's expense. The lack of equity is temporary and relatively unimportant as income is relatively high and secure.

22f: The vendor, Mama Elena, has a well matched housing economy with exceptionally high assets like the factory worker (22d). As the land is squatted its value is less distorted by inflated market values.

Table 22a/22b

Comparison of Incomes (Income)

<table>
<thead>
<tr>
<th>Income</th>
<th>Actual</th>
<th>Expected</th>
<th>Price</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>B</td>
<td>Moderate</td>
<td>Very High</td>
<td>Moderate</td>
<td>Very High</td>
</tr>
<tr>
<td>C</td>
<td>High</td>
<td>Very High</td>
<td>High</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Table 23a/23b

Comparison of Employment Access (Employment Access)

<table>
<thead>
<tr>
<th>Access</th>
<th>Actual</th>
<th>Priority</th>
<th>Social Access</th>
<th>Physical Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>Standard</td>
</tr>
<tr>
<td>B</td>
<td>Medium</td>
<td>Low</td>
<td>Medium</td>
<td>Standard</td>
</tr>
<tr>
<td>C</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Standard</td>
</tr>
</tbody>
</table>

Fig. 23c/23d

23c: The factory worker has a very well balanced housing performance. The highest priorities for social access and secure tenure are met and the only imbalance, a somewhat lower than desirable standard, is temporary.

23d: The employee has a well matched housing performance with positive mismatches for the family for shelter and tenure. The former is at society's expense as shown in 22e.

23e: The vendor, Mama Elena, has a well matched housing performance which all priorities are met with the partial exception of security of tenure. This will be consolidated when the present de facto tenure is legalized.
rent-free. The cost of erecting the shack was also negligible, so price and cost are in balance – no-one gains or loses. There is no market value as the car-painter cannot sell the shack to anyone (and would hardly get any cash from the sale of the materials even, given the proximity of the garbage dump from whence they came) so there is no equity or assets. One might read a negative imbalance between the household’s income and the lack of housing equity; but, in fact, the household is saving in cash and has therefore transferred its potential equity to its savings account. If we knew how much they had stashed away we could indicate that – but this information is rarely available, for obvious reasons.

The unemployed mason family’s oppressive house shows an extremely negative balance (Fig. 22c) they pay a price out of all proportion to their income. Even so, there is still a positive imbalance in the occupants’ favour between the price (rent-purchase) they pay and the cost to the government for providing the house and its services, indicating a relatively high cost in public subsidies on top of the high cost to the family itself. The family has no equity, as virtually all their payments are for interest in the early years of the mortgage, and they are not free to sell on the open market and cannot transfer.

**Non-monetary factors**

Equally positive and negative balances are shown up when the non-monetary account is assembled (Fig. 23). This is made up of factors indicating relative accessibility (both geographic and social); relative security of tenure (both continuity and transferability); and relative physical standards (both for the dwelling and its surrounding). It should be noted that the conventional measure of housing problems – the physical standard of the building and its equipment – is but one of eight factors observed and analyzed in this account.

Of course these factors are difficult to quantify, but Sudra and I maintain that it can be done, and done more easily than in the orthodox methods of surveying housing conditions, through the proper selection of a small sample of case studies.

From the above descriptions it is clear that in the car-painter’s supportive shack, the accessibility, tenancy, and comfort levels provided match the household’s priorities admirably (Fig. 23b). The family has excellent access to their sources of livelihood and the people and services on which its domestic life depends; its insecure tenure suits its temporary status, and the relatively low physical standards are matched by a relatively low priority in this respect.

The mason’s family’s house, however, is largely negative in the non-monetary as well as in the financial account (Fig. 23c): the project is very poorly located in relation to workplaces, and is poorly equipped with community facilities. The family has also been separated from many of its former neighbours. Its tenancy is extremely insecure as the family cannot maintain the excessively high payments for long, and they cannot legally transfer or exchange it for a viable alternative. They enjoy the increased comfort, but they are paying with their personal health – for their greatly improved physical conditions cost so much of their income that they cannot properly feed and clothe themselves – in spite of the substantial public subsidy.

The problems people actually experience, personally or collectively, are those revealed by these imbalances: poor value for money, financial and social insecurity, isolation and dislocation, and, of course, the bodily and mental hardships of poor physical conditions and lack of privacy.

How much people suffer from such imbalances depends, however, on their actual situations and future expectations. As the examples show, people’s priorities vary as widely as their incomes and future outlooks vary. It should now be obvious that no conceivable authority could possibly
anticipate the immense variety of household situations, priorities and specific housing needs. The huge efforts and sums spent on surveying housing conditions without reference to people's situations and priorities and without any clear understanding of the housing process, has done, and can only continue to do, a great deal of harm. It is not too much to say that these generally well-intentioned surveys and analyses have merely aided and abetted the destruction of urban communities, painfully built up by generations of people.

There is then, an argument for the redefinition of housing problems as functions of mismatches between people's socio-economic and cultural situations and their housing processes and products; and as functions of the waste, misuse, or non-use of resources available for housing. If this argument is accepted, then major re-orientations of policy must follow. If housing problems are not to be stated in terms of standard unit deficits, housing solutions can no longer be proposed in terms of unit production or productivity. Instead monetarily quantitative housing policy goals will have to be formulated in terms of redressing imbalances between incomes and prices, prices and costs, and costs and incomes. In non-monetary terms, policy goals will have to be reoriented towards the elimination of residential dislocation, insecurity of tenure, and housing-related psychosomatic disease.

4. HOUSING ECONOMIES

Resourcefulness versus productivity

In the last chapter I discussed the paradox of the car painter's shack made from scrap materials and the mason's minimum standard modern housing project unit. While the shack suited the needs of the car painter's family, the modern minimum unit was extremely oppressive for the mason's family. Despite all the mason's modern conveniences, the very poor shanty was clearly a better dwelling. This is the paradox in low-income housing of use-values versus material values. This chapter continues the discussion, using two case studies - a factory worker and a government employee - obtained by Tomasz Sudra in the course of our work in Mexico.

The case of the car painter and the mason is not a special one. The lower-income factory worker's owner-built dwelling (Fig. 24), in an unauthorized 'progressive development' (Fig. 25), is worth a great deal more to his family than the middle-income government employee's project unit is to his. The latter's house is of the same type and in the same housing project Unidad Vicente Guerrero as the mason's home (Fig. 20). And, as the following analysis will show, in a few years' time, the poorer man's house will be worth considerably more than the other's.

Our study of 25 representative cases in metropolitan Mexico revealed that the value of the larger dwellings of the lower-income group averaged more than those built by the higher income renters, whose incomes were up to three times larger than the lower income group. The contrast between rents paid by above median and below median income tenants is even more startling: low-income