The official bureaucratic approach to providing shelter has proved inadequate time and time again. Without official help, the inhabitants of Jangpura Extension, New Delhi, have transformed their government-provided block into a dense habitat for a varied community.

Solomon Benjamin suggests that architects must learn to tap the energy of the poor if their designs are to be relevant.

About 20 per cent of India's 700 million people are now concentrated in the urban areas. But in 20 years time, when India's population has swollen to close on billion, the urban population will have risen to 40 per cent. Delhi's population will rise from its current 4.5 to about 15 million, mostly through internal growth, unaffected by migration.

At present at least 40 per cent of Delhi's population lives in illegal colonies. Yet, compared with the rural hinterlands, which contain 80 per cent of India's population, Delhi is a haven: it has the nation's highest per capita income, with each job in the formal economy generating seven in the informal. Through this informal sector the city sustains the poor, offering some form of shelter, employment, and hope for a better tomorrow.

Neither the Government nor any other agency has the resources to intervene directly. Its past record, and those of other less-developed countries, in attempting to keep abreast of demand with mass housing programmes, has demonstrated this. The government needs to shift its role from 'to house' to 'to enable', as outlined by John Turner*. It is important to recognise the potential role of the informal sector when evaluating what the city itself can accommodate through consolidation of illegal colonies. There should be a shift from the present programme of developing vast housing complexes on the edge of the city to one of increasing the density of the centre.

Bureaucracies to check bureaucracies

As part of the post-independence desire to prove its worth, the government assumed responsibility for housing the poor. Government bureaucracies, trained to think statistically, saw the issue as a problem of numbers. And numbers were always swelling. Initially with the influx of post-Partition refugees, then with migrants from deprived rural areas, and now with internal growth the dominant factor. Mass housing was produced to specifications drawn up by centralised bureaucracies, to be supervised by other bureaucracies. When conventional methods proved too slow, prefabrication was attempted. But this also proved unsuccessful, its centralisation organisation divorced from the realities of site conditions and available skills.

Land became a key issue——particularly in a time of high inflation. To curb large-scale speculation, policies restricting individual ownership of sites and favouring group housing were introduced. This was one of the more positive policies towards a fairer distribution of land. The approach was partly effective in combating excessive land holding by the wealthier classes, but it could not offer hope to lower income groups: the usual four-storey walk-up housing schemes were still far too expensive. So 40 per cent of Delhi's population could not afford even the cheapest houses built, with the result that illegal colonies grew up across the river and slums infested the city centre.


ENCROACHMENTS ON LAND NOT CLEARLY ALLOCATED TO LAYING OUT OFFICIAL HOUSING ESTATES.

UNITED HOUSING.

AMBIVOSAN

INTERNAL COST FINAL OUTCOME

INITIAL PROVISION
Slums as an image problem
While unauthorised colonies sprang up out of sight, the slums created a serious image problem for the city. Delhi, the capital, is a status symbol, and the subject of a series of beautification schemes intended to achieve the image of a garden city, with large, treelined avenues.

To relieve pressure on the centre, large-scale site-and-services projects were built on the edge of the city—away from employment sources, and bedevilled by lack of adequate transport. Residents sold up because they could not afford to live there—a classic locational issue with site-and-services projects all over the world.

Attempts at decentralisation
To reduce congestion in the centre and to spread job opportunities, attempts were made to decentralise some government offices and to establish district centres. At the same time, huge chunks of semi-rural land were acquired from surrounding villages in an attempt to ease the demand on land, especially for the lower income group. In theory, revenue from the district centres was supposed to help subsidise housing for the poor. These policies fostered decentralisation, and generated commercial activity, but cross-subsidies never had any significant impact. Land acquired was auctioned to the highest bidder and the massive scale of district centres resulted in a drastic increase in surrounding land prices. Housing constructed for the lower-income group was soon bought out by richer people. Not only were the poor displaced but increases in land value due to intervention benefited only the upper income groups.

Despite the inadequacies of the government’s provision of low-income housing, the poor still manage to find some form of shelter, and access to employment, thanks to the informal sector. It provides housing in the form of slums, illegal colonies and jobs at various levels. Delhi was initially a service-oriented city housing government bureaucracy, but retailing and small-scale manufacture are now dominant in its economy. Within this sector the informal component has begun to play an increasingly important role. It provides an important stepping stone for the poor and newly arrived
migrants to better their circumstances and a chance to get into the system.

**Housing—multi-functional**

Housing has been one of the key elements of this transformation. Links have developed between income groups. Community participation and interaction are based not on formal institutions but on informal territorial negotiation. Through negotiation a range of complex tenure systems have developed according to the priorities of the group directly concerned.

Housing here means shelter as one element within a whole range of activities. These are secondary sources of income and social institutions vital to the family and community at large. They are of great variety: small shops selling consumer goods (often run by the old people of the family); open-air work spaces for assembling wooden crates; a room rented to a chemist, who is also a local doctor; a day-care centre or kindergarten; or perhaps rooms rented to a family of three.

Activities can also be temporary; a shop in the morning becomes part of the kitchen at noon and an extension of sleeping space at night. This temporal quality is not restricted to private areas but extends to the way public spaces are used. A street by day becomes a venue for social gatherings on a weekly market day; and on a summer night, a place where men and children sleep outdoors.

The construction process is deeply ingrained in the skills and resources of the informal sector. Over time, the sector has become sophisticated as people learn by doing. New techniques and innovations in construction technique emerge in this day-to-day process. As well as providing the building itself, the informal sector generates components ranging from cement grilles to sanitary ware. The growth of these markets provides access to materials and skills at a small scale.

The informal network provides access to materials and skills at a small scale. The poor can therefore upgrade their environments in an incremental fashion which they can control.

The evolution of these networks is interdependent upon their formal counterparts, often filling gaps in manufacturing output, or labour provision. And these informal networks support a large number of men, women and sometimes children in jobs that range from transporting bricks to construction sites to manufacture of metal grilles for windows. Policy makers should often make little or no attempt to support such networks and institutions because of professional self-interest or sheer ignorance. So the informal sector is excluded from legal recognition, forced to pay extra for basic services, lacks security of tenure and has almost no financial security in seasonal markets.

Incremental informal development does not fit into the conventional notion of good urban form and aesthetics. The formally trained professional accepts it as a paradox. It is seen as a disease of a decaying city, yet the formal sector depends on the informal for vital parts of the building process.

Most informal transformations are categorised as illegal: they do not conform to conventional standards, by-laws and land-use regulations. While some aspects of the construction regulations are important (especially sewage, water-supply and fire regulations), many are irrelevant, and date back to the 20s and 30s. They were products of over-specified and over-designed standards conforming to a foreign notion of private usage.

To get back some of the vitality missing in formally designed housing, attempts are being made to learn from the vernacular. While some cases are genuine attempts to understand underlying principles, most are superficial imitations of colour and form, divorced from the original socio-economic context. What is forgotten is that the present-day incremental developments have strong roots in their past, modified by people according to their current needs.

**A way of seeing**

Whether one agrees or not with the notion of urban form, informal informal networks are and will continue to be a major force in providing a foothold and shelter for the vast number of the urban poor. The implications are important. First, informal networks and organisations must be recognised as being a major force in the positive growth of a city, and ultimately of the larger region. Second, the informal must be seen as a dynamic rather than static process: the user plays a key role in decision-making. Conventional housing designed for numbers, assumes that the users are the same, with similar socio-economic characteristics; the solutions, reflecting that 'block image', are mass-produced products. But socio-economic characteristics are not the same from one family to another, and they cannot be generalised. It is almost impossible to create designs that reflect the users' unique circumstances, because of uncommunicated values and the sheer scale of the problem. Third, a way out of this dilemma might be to define territories within which an architect operates—where he can be most effective—leaving the rest to user control. Such a relationship between professionals and users is itself inextricable and is affected directly by the skills and resources of the local informal construction sector. Fourth, there is a need to develop tools and methods to understand implicit networks and their socio-economic implications.

**Focus on key areas**

How can either professional or centred agencies intervene in the process of upgrading and densification? With limited resources, it becomes important to focus intervention on key areas. Given the dynamic nature of the process, it is important to distinguish between the temporary and permanent issues. Instead of seeking radical change, minimum alteration should be sought within the existing structures.

Such a change of approach has important implications for urban designers and architects. Instead of being professionals, they should adopt less authoritarian positions and manoeuvre within an existing structure. A good deal of sensitivity and perception is required.

The shift in attitude implies limits to official intervention. This does not necessarily mean the emergence of non-architecture, but that the design process should be holistic in its approach, yet able to define areas of focus.

Apart from this political shift, the change in attitude calls for strong relationships with other disciplines. A basic knowledge of a broader range of tools and methods is needed so that architects can operate in a creative but democratic process of negotiation. Such a way of working would be site-specific in most cases, and this is directly related to architectural education. Instead of the traditional continuous process, it could be in stages. Learning should be encouraged in the field instead of being regimentalised into a five-year programme.

This proposal is not as radical as it seems, but is part of a process already underway. The disparity between the official codes of practice and what happens on site is bound to increase, especially with the increase of small-scale architect-builders. It is vital for professional and educational institutions to be able to cater to these changes.

**INDIA: FORMAL V INFORMAL HOUSING**

13, 14, residents set up stalls in streets on market day.