INCREASING LIVABILITY IN URBAN ARCHITECTURE: ADVANCES FROM SWEDISH EXPERIENCE

Birgit Krantz

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THE CITY IN THE 1990S: LIVABLE FOR WHOM?

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INCREASING LIVABILITY IN URBAN ARCHITECTURE: ADVANCES FROM SWEDISH EXPERIENCE

THE AUTHOR

Birgit Krantz has been Professor of Building Functions Analysis in the School of Architecture at the University of Lund, Sweden since 1978. She was trained in Architecture and practiced in architectural firms in Gothenburg and Stockholm after graduating in 1956. She was also a research officer with the State Institute for Building Research from 1962-68, and became the director of its research staff in Gaevle. From 1972-76 she was a research associate of the Royal Institute of Technology in Stockholm. Professor Krantz is very active in professional groups, particularly those dealing with the intersection of design and women's issues throughout Scandinavia and elsewhere in the world.

ABSTRACT

The Swedish approach to livable environments is highly pragmatic, focussing on design which accommodates the functional "everyday life" activities of a population which specifically includes women, children, the elderly, and disabled people. The paper reviews the Swedish tradition housing design and city planning, in which scientific research is treated as an integral part. Recent trends have been towards the recognition of the importance of community in housing, and the creation of social networks. Professor Krantz identifies four principles which contribute to successful interrelationships at the local level: co-operation in everyday life, integration of formal and informal care, resource conservation and people's participation in and control over management of their immediate environment. The paper evaluates the role of these elements in a number of Swedish residential projects.

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PREFACE

This paper by Professor Birgit Krantz is a particularly appropriate contribution to the theme of urban livability. It not only addresses the substance directly, but it gives evidence of how institutions like the Centre for Urban and Community Studies can foster achievement of enhanced livability.

Birgit Krantz reports hands-on experience with how research on urban design can make people's lives easier and more pleasant. Forget about theories, trends, and prospects; she demonstrates in her paper pragmatic ways in which progress has been made. Indeed, a considerable proportion of the experiences reported comes from work actually done in her own academic department and research institute.

When presented in the lecture series, Krantz' illustrations (which were far more numerous than could be reproduced here) amazed the audience with the apparent ubiquity in Sweden of humane, behaviourally supportive, and aesthetically pleasing environments. The major question to consider is how this has come about.

Birgit Krantz is the Professor (equivalent to Chair or Director) of the Department of Building Functions Analysis in the University of Lund's School of Architecture. Hers is a structural division within the university devoted to the study of how environments serve their human users. This pragmatic subject is pursued both for research and development objectives: to learn how environments function and to design new ones on the basis of empirical procedures. Krantz and her colleagues generate both analyses and designs as part of research activities, disseminating the results to researchers and practitioners alike. Academically, this department serves to sensitize undergraduate architecture students and to impart research skills to graduate.

That such a set of objectives should be institutionalized within an architecture school is not unique (for example, a sister department is located within the Royal Institute of Technology in Stockholm and somewhat similar functions are performed in a few universities elsewhere in the world) but is worth attention. Of particular interest, however, is the larger context for this work in Sweden, which makes the scale of the efforts possible.

Although most nations undergo regular shifts in priorities and policies (and Sweden has just recently undergone a shift to the right in government), Sweden had an unusually long, nearly unbroken period through the latter two-thirds of this century of government by the Social Democrats, in which welfare policies were developed to a considerable degree of intricacy. Among these were policies for building and housing which emphasized rationality, for planning, technology, and human impact.

One of these policies was intended to foster research and to use it to improve practice. A small tax on the capital costs of construction (about 1.25%) was levied to support research and development processes. It has been mainly funneled to a State Council for Building Research, which maintains a presence in Stockholm. The Council's job is to stimulate and direct research efforts throughout the country and then to serve as an interface to construction and housing industries through publications and other forms of communication.

One stimulus to the accumulation of pertinent research activities has been the provision of supporting grants by the Council for the research programs of institutes like that of Birgit Krantz in different university settings in Sweden. Another was the creation and support for many years of an independent research organization, the State Institute for Building Research, originally in Stockholm and now "decentralized" to Gaevle. These initiatives have not only generated the anticipated research activities implicit in the supporting grants but a major multiplier effect in trained and sensitive personnel, additional research efforts, close liaison with the relevant public, private, and cooperative sectors, and a critical mass enabling a culture supportive of urban livability.

It may exaggerate the matter to conclude that empirical research is largely responsible for the gains in livability which occurred in Sweden. This research has been, after all, just one part of a complex scheme of complementary welfare policies. But, on the other hand, one should not underestimate the importance of an active, pragmatic, and sufficiently-funded research and development process, based on tangible institutions, which has been at the forefront in creating, evaluating, and expanding the many aspects of livability within Sweden.

While at one level the reader may find interest in specific experiences reported by Birgit Krantz, a major additional contribution of her paper is the consideration of how such valuable experiences were able to come to fruition. The value of Swedish experiences in urban livability surely lies at both levels.

William Michelson
November 1991

INTRODUCTION

Bindgarnet is a so-called infill scheme, an area of municipal housing located close to the historic centre of the old university city of Lund. It was built in the early eighties and contains 120 apartments in buildings of two to four storeys. The residents are members of a housing cooperative which manages the buildings.

I know Bindgarnet very well because I have lived in it since it was built. My view of how it functions is a personal one and has not been the subject of scientific evaluation.

There are two reasons why I want to start by mentioning Bindgarnet. First, it has a great number of livability qualities and, second, most of these qualities are the opposite of those which characterized Swedish urban environments of the sixties, which were created under a national program to build one million dwellings. So talking about Bindgarnet gives me the opportunity to demonstrate implicitly the impact of the public criticism initially directed against the urban space of the sixties and which was very soon followed up by a large number of research reports (Daun, 1985). It gives me the opportunity, in addition, to highlight some of the current trends in Swedish city planning and housing design.

How can I describe livability in Bindgarnet?

Because of its close proximity, residents have extremely good access to all kinds of activities in the city centre. This is a privileged situation and might seem Utopian for most residents living in the remote suburbs of any large city in Sweden; but location is nevertheless a fundamental quality with reference to the question of livability. In addition to the very central location, there is a convenience store on the corner, which is open from 9 am to 10 pm.

The buildings within the housing area are low-rise, high-density and range from two to four storeys. Some residents might even consider the area too dense, with a neighbour's window less than ten metres away. The architectural expression of the buildings shows a great richness of detail. The courtyard is generously filled with grass, trees, and bushes; benches are strategically placed, inviting people to chat, and there is a well-equipped playground in the middle (Figure 1). All entrances face the inner area of the block; this does, however, reduce street life to some extent.

FIGURE 1: A BINDGARNET COURTYARD.

The distribution of apartment sizes—ranging from two-room up to six-room apartments—allows for different types of households. Facilities for common use within the complex are laundries, premises for meetings and private parties, a darkroom for photography, a weaving workshop, a sauna with solarium. A childcare centre is located in one of the buildings.

The design of this small urban environment is neither outstanding nor startling, but is nevertheless quite unique in comparison with the planning principles that guided building some 15 or 20 years ago in Sweden. At that time, large scale repetition of prefabricated building components, and vast asphalt areas between high-rise buildings were typical features of municipal housing. Many people in the large housing projects have felt and still feel a lack of control over their environment and frequently experience deficiencies in building and exterior maintenance. They have no influence on management. Bindgarnet is also municipal housing, but its residents, as they are tenant-owners, can collectively determine programs for building management and the use of common space.

It should not be thought that all this positive evaluation of the livable qualities

of Bindgarnet means that the people are constantly happy here and live together in splendid harmony. I could also talk about serious controversies that arise when we try to live up to the ideal of resident participation! The fact is that planning criteria cannot make people happy; they can only provide a framework.

The qualities of Bingarnet's livability can be summarized as: a human scale, variety in form, a design that promotes socializing, facilities for common use, a tenure form that allows resident participation, a stimulating and safe place for play, and a mix of different households living together. These criteria might make up a policy of livability. I will examine these themes from a variety of perspectives in the following discussion.

I have started with a small piece of a city, an example of the immediate living environment. This approach might seem narrow, in view of the huge problems our cities are confronting. Yet I have done this because I maintain that a discussion on the livability of urban architecture must begin at this level of people's everyday experience. Normally our days start within a dwelling and they end within a dwelling. For most people, the dwelling and its immediate environment provide the setting for the largest part of everyday life.

Therefore the every day life perspective is important. When we face society from below we see things differently than when we apply the bird's-eye perspective normally used by planners: we notice all those practical necessities that make life more bearable and support us when we are weighed down by time pressures and too many obligations, or when we are reduced in ability, or when we need the daily stimulation and challenge of other people.

The everyday life perspective also implies acting on behalf of women. Although many studies have emphasized the variety in women's conditions and lives, even within the same culture, similarities continue to exist in their heavy responsibility for family, children and housework (Friberg, 1989). Most women in Sweden work outside the home, but evidence is nevertheless clear about their heavy domestic and caring obligations compared to those of men. Women's strategies are mostly based on their strong concern for their children, and they try to organize their daily life both spatially and temporally with a view to their children's well-being.

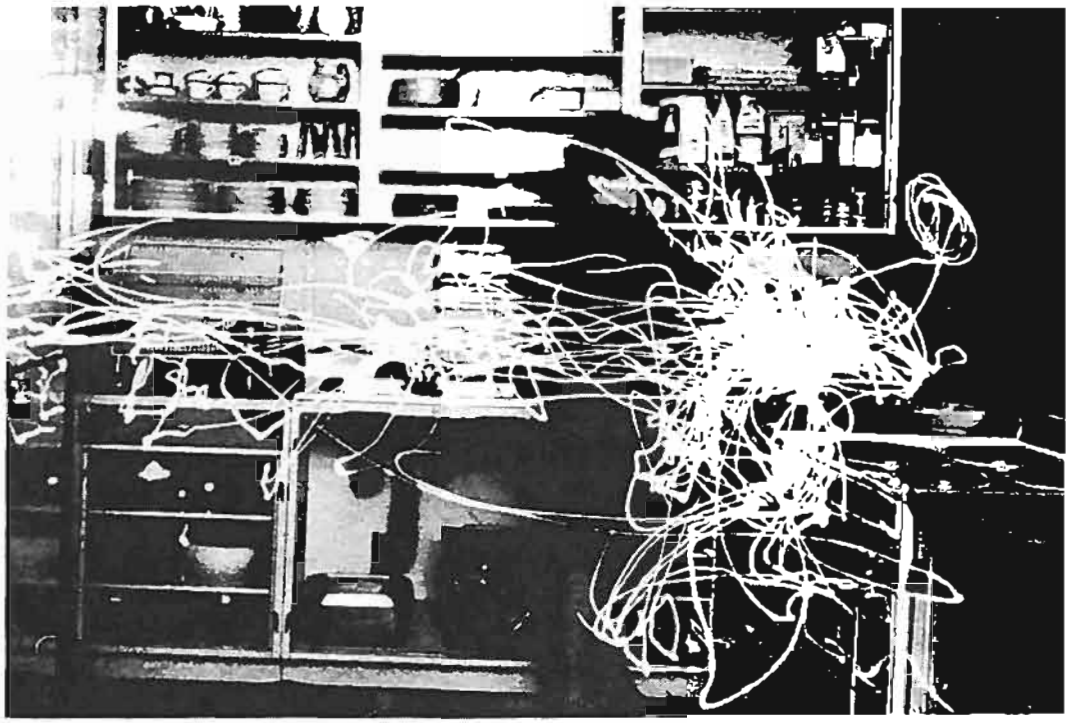

FIGURE 2: EXPERIMENTAL KITCHEN STUDIES FOCUSSED ON MOVEMENT PATTERNS.

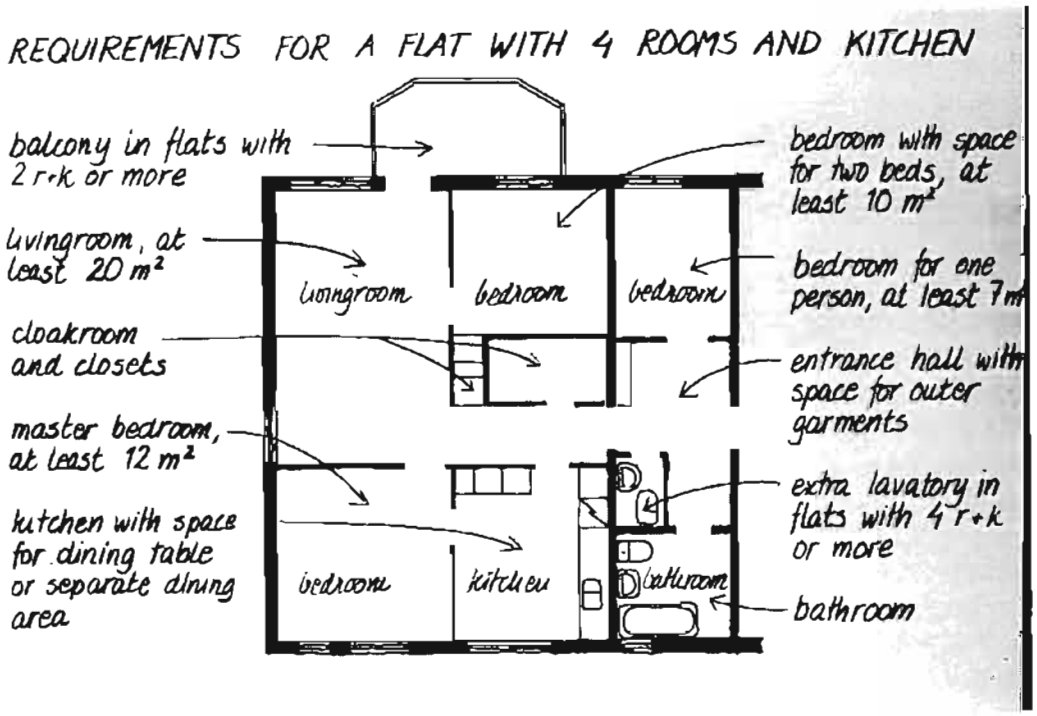

FIGURE 3: CURRENT DWELLING STANDARDS GUIDELINES.

Swedish Housing Policy Research

The Swedish tradition in housing design and city planning encompass a recognition of women's everyday life. A sterling research tradition since the forties has established a basis of knowledge for 'good housing.' Investigations of living patterns and experimental studies of, for example, kitchen and laundry installations have been made, most of them initiated and carried out by women (Figure 2). Research has also been directed towards the improvement of housing and urban design for people with reduced abilities. A number of the early Swedish studies recognized children's needs in the urban environment. The initial perspective was to plan for security; by and large the studies focussed on cognitive aspects and had an evolutionary perspective of childhood (Krantz, 1985).

A very tight connection—some critics might say a symbiotic relationship—between research and government housing reform has characterized the situation in Sweden. This has led to a smooth assimilation of the results of research and development work. Research knowledge has been quickly adapted and transferred into building regulations and design guidelines. The average standard for the interior of dwellings is high (Figure 3). This would be clearly illustrated if I were to tell you in detail about the design of the dwellings in my block of Bindgarnet. The high quality of both space design and equipment in the apartments in my housing area as well as in most municipal housing in Sweden owes a great deal to the legacy of systematic and practical knowledge that has been used since a social housing policy was established immediately after World War II.

However, despite the obvious achievements in providing 'good housing,' something was missing. The well-intentioned but strongly rational approach had shortcomings, which became evident when the housing boom ended in the seventies. Criticism addressed the poor social climate in multi-family housing areas. These areas showed severe problems of social isolation and anonymity, in some cases virtually social disorder (Daun, 1985) (Figure 4). Moreover, there were other shortcomings, partly generated by the social conditions, partly due to technical mistakes when building had to be carried out under strong time pressures: shoddy building components and poor architecture were the results of the industrialized building process.

While social housing policy until the seventies aimed to raise material

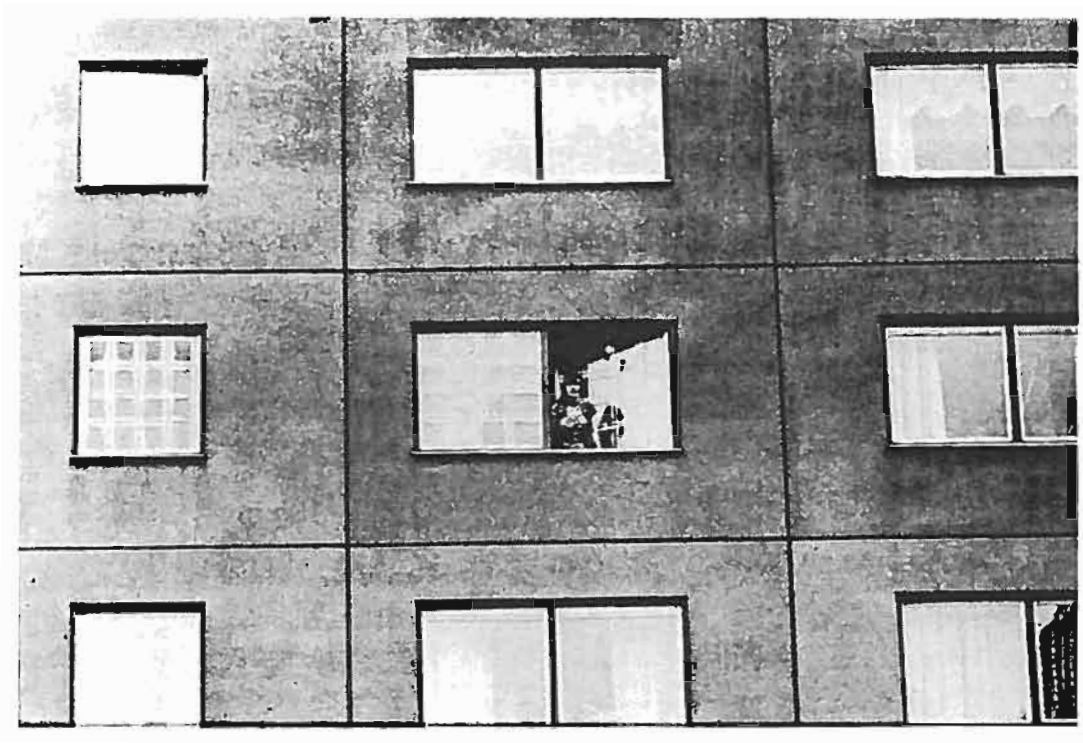

FIGURE 4: HOUSING AREAS OF THE 60S HAD PROBLEMS OF ISOLATION AND ANONYMITY.

FIGURE 5: THE MAJOR BUILDING EXHIBITION 'BUILDING FOR COMMUNITY' PROMOTED THE CONCEPT OF GLASSED-OVER COURTYARDS.

THE WHOLE POPULATION SHOULD BE PROVIDED WITH HEALTHY, SPACIOUS, WELL-PLANNED AND ADEQUATELY EQUIPPED DWELLINGS OF GOOD QUALITY AT A REASONABLE COST.

SWEDISH HOUSING POLICY OFFICIAL SLOGAN PRIOR TO THE 70S (FIGURE 4)

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standards, to remove overcrowding and unhealthy living conditions (the official slogan specified 'healthy, spacious, well-planned and adequately equipped dwellings of good quality at a reasonable cost' for the whole population), the new official planning goal turned to the creation of social networks and the promotion of a feeling of belonging in housing areas. Other planning values also related to the concept of community.

A brief review of recent trends in Swedish society can illustrate the new values that were emphasized. The events of 1968 had an impact on Swedish society similar to the experience in other industrialized societies. People's desire to influence planning matters was raised and—sometimes—met by the planning apparatus. The idea of participation could easily be included in the ideology of community, as participation in practice brings people together. Furthermore, concerns about natural environment and energy use grew in the seventies, as the effects of the energy crisis were felt. Alternative forms of living emerged which were based on conservationist ideology.

The new directions of concern affected many different levels of society. As policy-makers in Sweden are always quite sensitive to topical issues, and as the distance between research and policy is short, there was a quick response to research reports which diagnosed a lack of community, with support soon being given to innovative initiatives. The government provided money for community work projects; funds for building research supported evaluations of experiments with resident participation and alternative housing. In 1985, a large building exhibition was held under the motto 'Building for Community' (Åström, 1986) (Figure 5).

A critical appraisal of the Swedish idea of planning for a sense of community must, however, consider what can possibly generate such a feeling of belonging in the

urban context. My proposals for a realistic approach are the following:

- cooperation in everyday life;
- integration of formal and informal care at the local level;
- resource conservation broadly interpreted; and
- people's participation in and control over the management of their immediate environment.

Isolated or interlaced, these are four important components of a framework of interrelationships at the local level. Planning with these concepts in mind will follow the lines of women's interests which are well documented in women's studies in the Nordic context (Forskargruppen för Det nya vardagslivet; Krantz, 1989).

Current Swedish experience of new ways to create livability on these terms are not remarkable in a quantitative sense, but a few examples will illustrate the real possibilities and how they can be supported by architecture. The dual interest—at the official level and at the grassroots—in improving living conditions has in some cases meant an auspicious encounter between formal and informal society.

A TOP-DOWN ATTEMPT TO DEVELOP SOCIAL NETWORKS

Ideas of supporting from above (i.e., from the public level) the development of neighbourhood relationships, have been launched in the so-called 'Linköping model.' Critics may call it a typical outcome of the art of social engineering, a particular Swedish specialty.

Much attention has been paid to this 'Linköping model' in Sweden, and my own research department, the Department of Building Functions Analysis at the University of Lund, has been helpful in the process of disseminating the ideas. We have reported in an evaluation study the experiences of the first application of the model in a large development on the outskirts of the city of Linköping (Henning *et al*, 1987). The main idea of the model, developed by a dedicated head of the social services administration of the municipality, was to offer to any resident living in the neighbourhood the resources of premises and staff as focal points for meeting other people, and thereby to contribute to the growth of social networks in the neighbourhood. This has involved the decentralization of the social services institutions; small institutions spread throughout the neighbourhood take the place of

FIGURE 6: SERVICE BUILDING FOR THE ELDERLY IN LAMBOHOV.

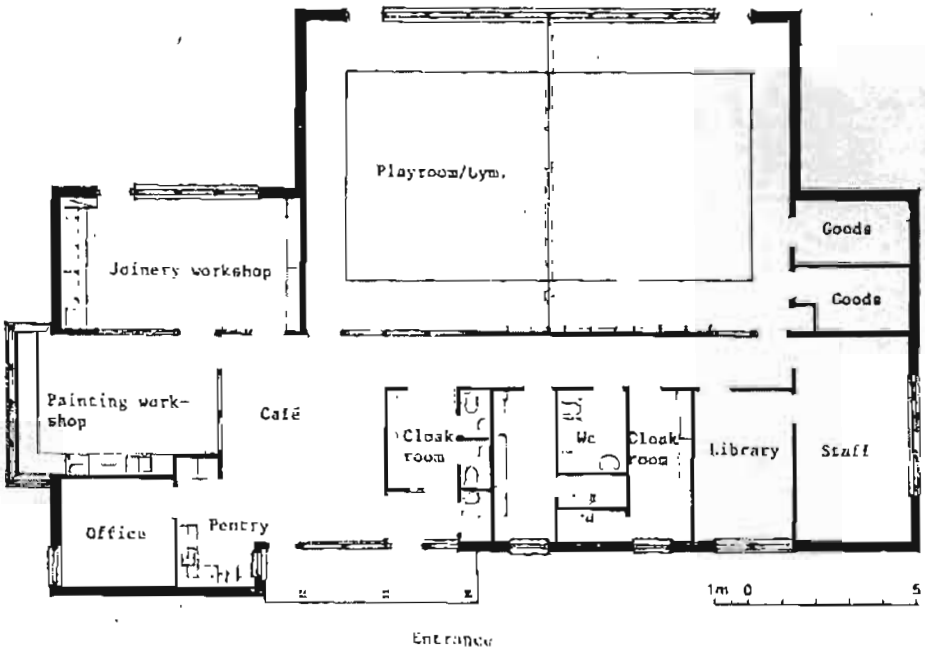


FIGURE 7: PLAN OF A NEIGHBOURHOOD CENTRE IN LAMBOHOV INCORPORATING CHILDCARE.

centrally-located larger ones.

The development of the residential area of Lambohov started in the late seventies, aiming to accommodate a population of about 8,000 people. The area was provided with small units of service housing, with small childcare centres and independent apartments for elderly people; these were equally distributed, with one of each serving a neighbourhood of up to 300 dwellings (Figure 6). The service houses, each with 35 apartments, contain facilities such as a lunch restaurant and a variety of opportunities for recreational activities, facilities that normally serve the elderly but in this case are intended to be available for all residents living nearby.

The same principle has guided the planning of the childcare centres in the Lambohov housing area. Furthermore, every three or four service houses are provided with a building, located quite near, containing rooms for meetings as well as workshops, a gym and a small cafeteria (Figure 7). This building thus forms a small neighbourhood centre. The staff here is expected to encourage the residents to show up and to use the various facilities.

Our study proved that the model has functioned quite well in this way. A third of the population in the area have visited the all-activity centres. Most people use them in the evenings and on weekends, when the residents themselves are responsible for their operation. Visitors during the day are often childcare providers with their children, and parents who normally are at home with their own children. These groups come to talk in the cafeteria or to give their children the opportunity to paint or work with clay in the workshops. Groups of residents use the gym for meetings or folk dancing or other activities.

Making the service houses for the elderly available for others has been less successful. The people in the neighbourhood have been more reluctant to come and use them. But children from the day care centres have their lunches together with the pensioners, and some elderly people visit the children at their centres.

What has this model accomplished? The decentralization of care institutions diminishes their more usual institutional character. Contacts with neighbouring residents are facilitated through the common use of playgrounds and outdoor space. The proximity of residence and childcare centres helps make the encounter between the public sector and private households more positive (Figure 8). Another positive

FIGURE 8: OLD AND YOUNG PEOPLE MEET AT THE NEIGHBOURHOOD LEVEL.

result of the model is the access that residents have to a variety of places, activities and premises and the greater opportunities to meet people in the immediate neighbourhood.

But the general impact on social networks in Lambohov is even more significant. We know that urban patterns of relationships show widespread and family-based configurations; relatives and near friends are the most important members of social networks in cities, and one cannot expect substantial changes in this pattern. However, in terms of non-demanding contacts and easy socializing, the social climate in the neighbourhood was positively affected by the development model.

The Linköping model has inspired other municipalities to open their institutions in the same way. There are examples of advanced co-use of publicly provided facilities across municipal sector borders in order to create vital meeting-places at the neighbourhood level. These kind of initiatives have also been taken by municipal housing companies which, in Sweden, are gradually becoming conscious of their social responsibility, in addition to their management duties. In one urban

renewal area, for instance, a neighbourhood centre has been established which contains a whole range of activities for elderly people, the most interesting aspect being that the elderly themselves have taken a major share of the responsibility for running activities. Another example is of a housing estate built in the fifties, where activities in the neighbourhood centre were established recently with the support of government grants for innovative social projects. A successfully conducted urban renewal process in the area, carried out with great respect for the residents' needs and interests, provided a fertile environment for social interaction. This centre attracts many elderly; they come daily for lunch, for social gatherings with entertainment, for playing cards, for handicraft work. Thirty pensioners take turns in being hosts during the day. The building is a converted supermarket, now equipped with a beautiful small kitchen, and a dining room which can also be used for films and physical exercises. During the winter 'campfires' are arranged. The elderly express their great satisfaction with the centre's various possibilities, and they are also extremely happy about the fact that they are so deeply involved in the organization of the activities and events at the centre.

Glassing-over as a physical attempt to create community

Architectural design has not been employed to any sophisticated degree in the above cases, which involve only very modest physical arrangements. The housing design of Lambohov can be characterized as current mainstream architecture, small in scale and with some diversification. In other contexts the re-use of buildings for innovative social interventions has been common in the tight economy of the eighties. In general, the emphasis has been on the social dimension rather than the physical.

In contrast, the glassed over Gårdsåkra housing estate appears as a large architectural gesture towards the enabling of social interaction. This example has special interest because the model with some variations soon came to be applied in many cities in Sweden (Hammer, 1984; Krantz, 1989).

The housing estate of Gårdsåkra contains 120 dwelling units. It was built in the early eighties as the first large-scale example of housing which uses glass-covered semi-public space (Figure 9). The entrance area forms a street on which the individual dwellings face. This unusual building complex has, from its very beginning, made a great stir in many circles of Sweden. The design of Gårdsåkra estate was intended to

FIGURE 9: THE GÅRDASÅKRA GLASSED-OVER 'STREET.'

make this housing area at the margin of a small city a vital Mediterranean street by glassing over to keep our harsh northern winter outdoors. An additional benefit would be found in energy cost savings, an objective that was important for the project's realization. The energy-saving goal was to be realized largely through technical devices and tubes which give the interior of the complex an extremely high-tech character with minimal affective consequences for people living there. But unfortunately, it was found, with limited success in energy saving.

Moreover, the vision of a vital social life in the Gårdsåkra estate was not achieved. Some research indicates that the failure is due to at least two significant misunderstandings that are of interest to a discussion of ways to create livability. One misunderstanding is to think that the qualities of glass-covered rooms—courtyards or 'streets'—can replace outdoor qualities. The design of the space where the Gårdsåkra residents are supposed to socialize tried to underpin the outdoor feeling; the space is arranged to encourage staying outside the dwellings—for instance, frontyards are designed for small talk with neighbours and for coffee drinking; green plants are associated with a natural environment. But the fact is that people do not use the indoor-outdoor space as anticipated by the architect; it lacks the fresh air, the direct

sun, the singing birds. Winter acts to constrain unplanned interaction; but at the same time, this unplanned interaction requires the functional support of the environment as an excuse for social contacts—excuses such as going out with the dog, taking coffee in the frontyard or being outside to get a breath of fresh air.

The second misunderstanding is that social interaction can take place without the provision of supportive common facilities or an organizational structure for residents' influence on the use and management of buildings and space. The Gårdsåkra housing complex is not provided with facilities for common use, except for the normal provision of laundries and access to a meeting room attached to the school on site. Furthermore, there is a confused situation for the residents in being split into two tenure groups. Dwellings located on one side are rented; on the opposite side they are allocated through ownership. The owners can participate formally in management decisions, while tenants cannot. This situation affects the emotional attitudes of both groups to the the environment, with resident-owners tending to claim that the street area belongs to them.

The Gårdsåkra case demonstrates well the idea of physical determination, an over-estimation of the role of architecture (the classical expression is 'salvation by bricks'). Again, striving for a sense of community must give equal recognition to an appropriate social organization and the objective material factors as necessary bases for cooperation. These features are precisely those which characterize contemporary communal—or collective—living in Sweden.

New collective housing in Sweden

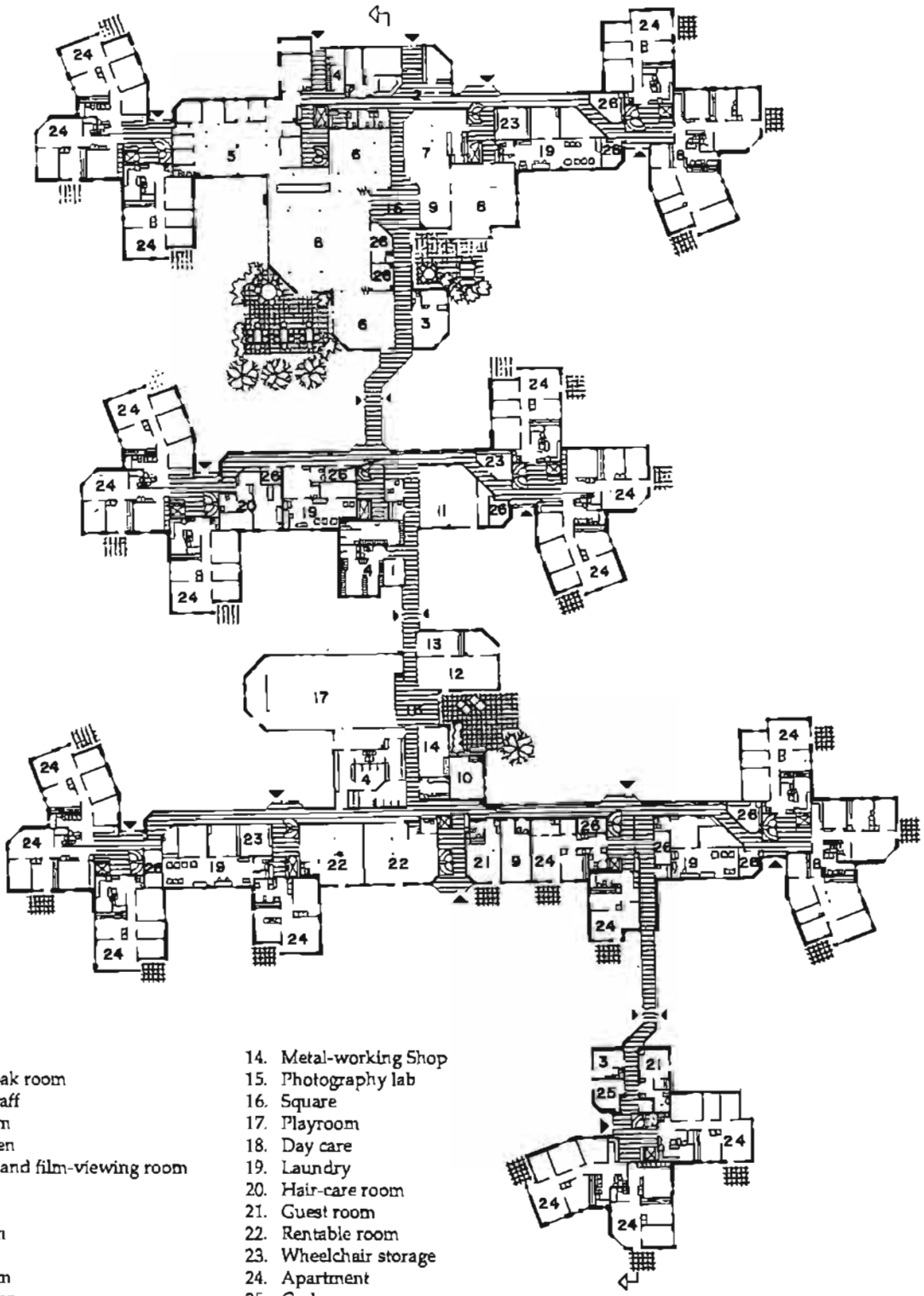
The new wave of collective housing in Sweden started rolling in the seventies as a consequence of a debate, a debate which was conducted primarily by women politicians and researchers (Vestbro, 1982).

One of the first projects was the collective house of Stolplyckan. The implementation of the project is a good illustration of the official interest that started in this period to support alternative housing, with the impetus in this case from the grassroots level. The initial driving force was a women's group in the city of Linköping, who managed to convince decision-makers and the municipal housing authority to start this project.

FIGURE 10: THE COLLECTIVE HOUSE OF STOLPLYCKAN.

The women demanded a way of living that would enable them to go out to work without negative effects on the welfare of their children. Their request for collective housing was met positively by the municipality, the reason being that the social services administration could implement at the same time their model of decentralizing and integrating the care institutions within an ordinary housing project as described above. Thus, the deal offered was to give the residents in the collective building access to a wide range of common facilities, in accordance with expectations for a collective house, without raising the rental costs, and at the same time to achieve the social aim of 'normalizing' life for people dependent on social services in this case, a group of elderly people and a small number of mentally handicapped persons in protected apartments, so-called service dwellings.

The size of the Stolplyckan collective house is considered large, containing a total of 183 apartments (Figures 10 & 11). These are provided as usual with kitchens and other amenities but have been reduced in size, and the pensioners' apartments are fully accessible. The dwellings are located in tower buildings of varying height connected on the ground-floor by rooms for common use.



1. Reception
2. Entry and cloak room
3. Lounge for staff
4. Dressing room
5. Central kitchen
6. Dining room and film-viewing room
7. Coffee room
8. Library
9. Meeting room
10. Pottery room
11. Weaving room
12. Carpentry shop
13. Painting shop
14. Metal-working Shop
15. Photography lab
16. Square
17. Playroom
18. Day care
19. Laundry
20. Hair-care room
21. Guest room
22. Rentable room
23. Wheelchair storage
24. Apartment
25. Garbage
26. Storage

FIGURE 11: STOLPLYCKAN: PLAN OF COMMON FACILITIES ON GROUND FLOOR (*Höjer-Ljungqvist, Architect*).

Source: Reproduced with permission from Karen A. Franck and Sherry Ahrentzen. 1989. *New Households New Housing*. NewYork, NY: Van Nostrand Reinhold, p. 77.

FIGURE 12: THE RESTAURANT AT STOLPLYCKAN; LUNCH FOR PENSIONERS AND CHILDREN FROM THE DAY-CARE CENTRE.

The study we have carried out to evaluate the dual objectives of the Stolplyckan concept—to meet the residents' demands for community and to provide the care services—shows that this social engineering attempt has been quite successful (Krantz and Pedersen, 1989). The residents have access to, and actually use, the restaurant, the cafeteria, the small library, the gym, and all the other facilities that are provided (Figure 12). Two small units for child care are located in the building. A primary school was established some years after the building was finished. For the parents the proximity of both child care and school provides an extraordinary practical solution; for the children, life is much more constant.

The corridor connecting the common rooms on the ground-floor is a meeting place for people of all ages. The rich possibilities that are offered in the building, to a large extent as a result of the residents' own activities, have led to an unusually high level of social interaction and have created a sense of fellowship among the residents.

Originally, communal life in Stolplyckan was not intended to involve the residents in cooperative participation, for instance in common meals or management activities. Yet, this kind of cooperation has been achieved in the house, also creating

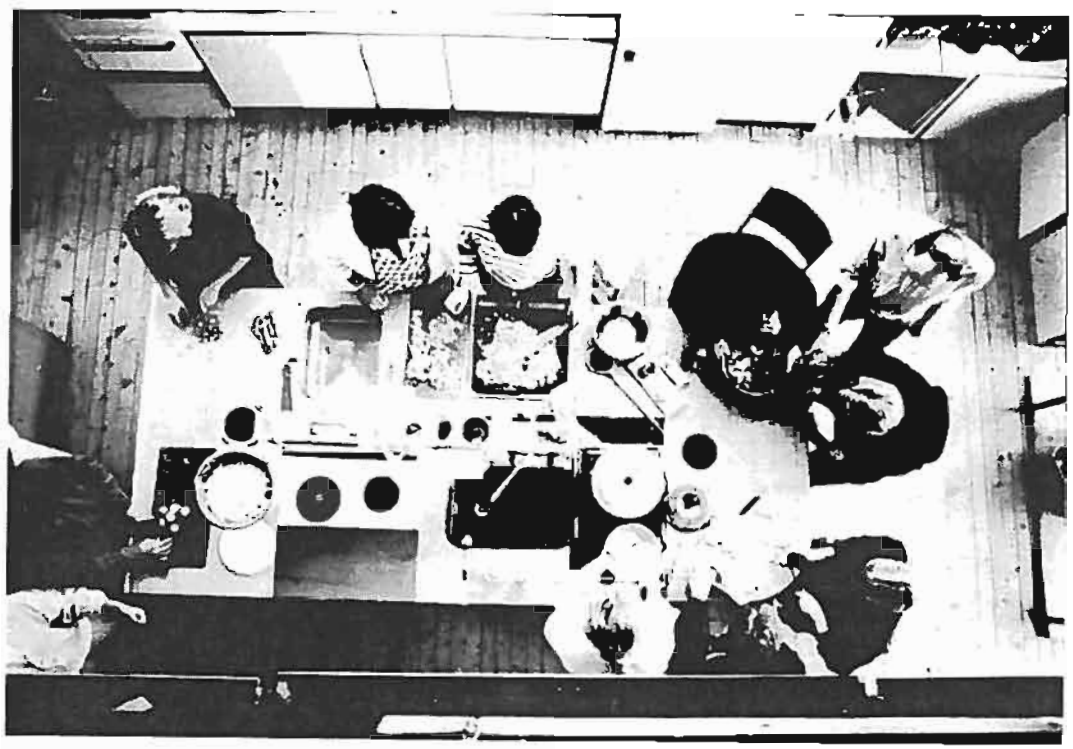


FIGURE 13: KITCHEN UNIT OF A COLLECTIVE HOUSE.

interesting bonds between the different age groups. If you should ask, for whom is this collective house with its unusual social program a livable place, I would answer: for younger and older children, for young families, for single people, for old and very old persons. One specific prerequisite for its good functioning, in addition to the generous provision of service and common space, is the residents' affirmative commitment to a more 'convivial' everyday life. Architecture may be a necessary condition for social integration, but the self-selection of committed residents is essential. This kind of work is hence a form of sensitive architecture-cum-social planning, but not social engineering in the determinative sense.

The implementation of Stolplyckan about 1980 was the first result of the new official interest in communal living. We in Sweden are amazed at the present commitment to building collective housing by non-profit companies and cooperative associations, appointed to put the housing reform policy into effect at the municipal level. As Sweden is a small country, we regard some fifty newly built collective houses, with more in progress, as a startling figure (Vestbro, 1988).

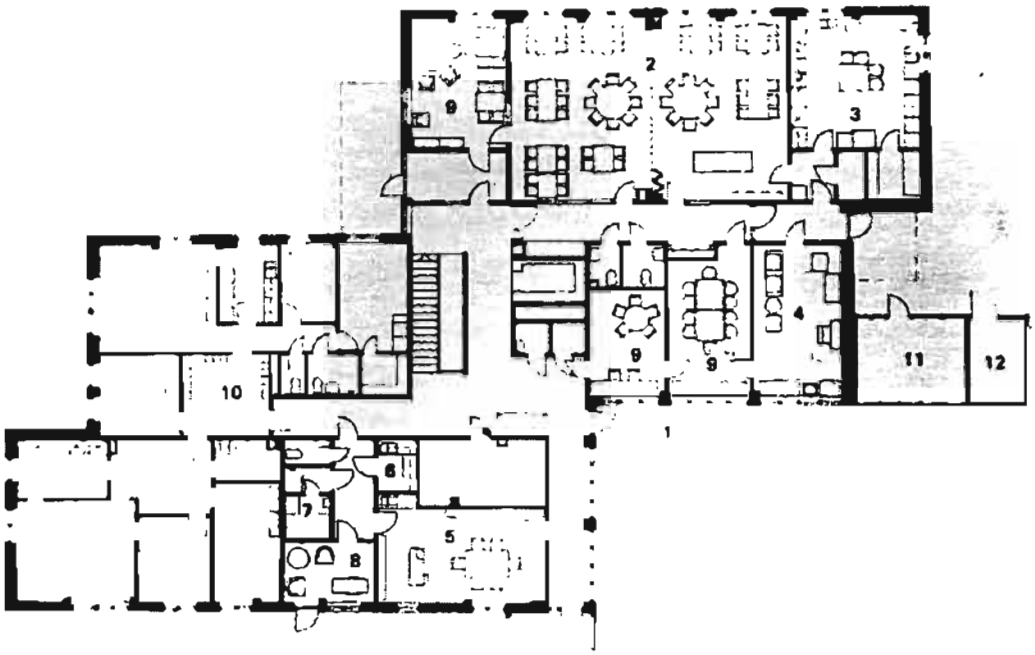
Most of the collective houses that were developed after the building of

FIGURE 14: THE COLLECTIVE HOUSE OF PRÄSTGÅRDSHAGEN IN STOCKHOLM.

Stolplyckan are smaller in size. This coincides with a concept for collective housing which was elaborated by a group of women researchers (Berg *et al*, 1982), whose study got financial support from the national building research agency. Their work was considerably influenced by Danish experiences of communal living, of which the specific form of 'bofaellesskab' had fascinated many Swedish visitors. A physical characteristic of these collective housing schemes is that they are built as clusters of low-rise buildings (McCamant and Durret, 1988).

The women proposed that the form of co-existence in the collective housing should be based on residents' cooperation in daily life. Common dinners should be prepared by the residents themselves; cleaning up and management in general should be a collective task (Figure 13). A feeling of fellowship should be created around these common responsibilities. Thus, the size should not be too large—they suggested the appropriate size as between 20 and 75 apartments: not too small to be exclusive, but not large enough to hinder direct communication and easy decision-making.

The collective house of Prästgårdshagen, situated on the outskirts of Stockholm, contains 31 apartments (Figures 14 & 15). It represents the small



1. Entrance
2. Dining Room
3. Kitchen
4. Laundry
5. Ceramics Room
6. Darkroom
7. Sauna
8. Sauna Lounge
9. Playroom/Lounge
10. Daycare Centre
11. Bicycle Storage
12. Garden Shed

FIGURE 15: PRÄSTGÅRDSHAGEN: PLAN

collective housing in type but might be above average in terms of successful communal living. The way of life in Prästgårdshagen is a good illustration of the ideas of the small collective house, based on shared everyday tasks (Woodward *et al*, 1989). Since it opened five years ago, the residents have continuously served dinners every weekday except during summer vacation. A clever device to accomplish this has been an obligation to take part in preparation, which the residents do in teams of two persons in rotation every third week. Normally, those who are cooking also eat, but it is not compulsory to eat communally. The rest of the common tasks are also carried out by working teams: gardening, repair and, not least, organizing recreational events and activities.

The cooperation of all the adults in housework chores has brought about in this and other collective houses clear changes in gender roles. Through practical obligations both for child care and for daily tasks the men are involved much more than is found in time-budget studies of households throughout Sweden. According to some recent research findings, women in collective housing have experienced a radical change in gender relationships, and thus in their everyday life in general (Woodward *et al*, 1989).

A child care centre run by the municipality of Stockholm is located in Prästgårdshagen. A typical feature of many collective houses is for the day care centres to be run by parental cooperatives. This is a new and growing movement, resulting in part from the insufficient provision of child care even in Sweden, and in part from the parents' desire to be engaged directly in the care of their children (Lieberg and Engström, 1987).

There is a continuing debate as to whether the new mode of communal living that is illustrated by the case of Prästgårdshagen creates an introverted and self-satisfied community of middle-class people enjoying fairly good economic circumstances. It is true that this type of housing has not yet attracted many working class households; the preferred housing among the working class is still the single-family house, when they can afford it (in most parts of the country, except the large cities where the housing market now is overheated, they can). The residents in the collective houses can more likely be classified in terms of belonging to an alternative life style, an approach to living that favours social values; not economic status *per se*. They are frequently preoccupied with their own common activities, but there are also several examples of communication with the neighbourhood.

If the current wave of collective housing continues, other social groups could become involved. We also know of tendencies of residents to share responsibilities in so-called normal housing areas, where dining together on a regular basis occurs, where residents take part in energy saving tasks, and so forth. Municipal housing corporations and tenants' organizations willingly join in encouraging these kinds of local initiatives.

URBAN RENEWAL: A WAY TO INCREASE LIVABILITY?

The practice of collective housing, as shown above, is determined by the residents' own commitment to a shared existence in everyday life. And as has been demonstrated particularly by the example of Stolplyckan, part of the success of this living form lies in the mix of different age groups. We can contrast this with the service housing concept, which we have seen in the case of Lambohov.

The interesting point here is the physical similarity between the collective house and the service house, both of which contain independent apartments and a whole range of common facilities. Besides the lack of a cooperative ideology among the residents, however, the service house represents what sociologists call a 'total environment' (Lindström and Åhlund, 1988). In reality, the Swedish service houses have turned out to be the houses for the oldest elderly, and are highly criticized for this reason.

The service house concept, offered as a solution for those elderly who do not need full service or hospital care, has in the previous decades been part of official housing policy for housing the elderly. Times now have changed, and current policy speaks of aging in place (SOU, 1984:78). The background for this new policy is multi-faceted. Service houses have been accused of being too institutional. Surveys have shown a distinctive desire among elderly people to be able to stay in their own apartments and familiar environments, at least as long as their functional ability allows and that appropriate support is available from social services. Furthermore, governments aiming to cut public expenditures have accepted the new idea of aging in place gratefully.

The policy of aging in place has uncovered severe contradictions in Sweden's housing renewal and modernization program in the eighties. If people are going to remain in their old, very frequently not modern homes, these outdated houses must be modernized and adapted to prescribed accessibility standards (Figure 16). The critical aspect is that the modernization process itself in many cases negatively affects the elderly people who are intended to benefit (Öresjö, 1988).

From the planners' point of view, the renewal interventions might seem very modest. Not only are planners aware of residents' frequent objections to change, but a newly awakened recognition of the intrinsic architectural value in buildings from the

FIGURE 16: HOUSING FROM THE 40S AND 50S NEEDS TO BE MODERNIZED.

forties and fifties has by and large hindered planners and builders from applying too drastic measures.

But in spite of this sensitivity, the process of modernization is frequently highly disturbing for elderly residents. At worst, it forces the old persons to be displaced during the rebuilding process. Some might never come back to their former apartment or even their former housing area. It is not inaccurate in such cases to label urban renewal a process of decreasing livability, resulting too often in the breaking up of an earlier existing social structure. Even modest interventions, like turning two apartments into one or installing elevators, have negative effects. However, projects that have produced the strongest resistance among the residents are infill projects

FIGURE 17: A CONSULTATION GROUP IN A HOUSING MODERNIZATION PROJECT.

intended to raise density and which aim to attract young families by providing larger apartments.

Research on the effects of urban renewal has taught us a lot about the impact of renewal activities on the well-being of people, especially old people. But we have also acquired new knowledge about how people relate to their physical and social environments (Öresjö, 1988; Wikström, 1988). Our findings when studying rehabilitation in areas built in the forties and fifties, show convincingly the anxiety among elderly people when planned projects are made known. Many have lived in the same environment for thirty or forty years and are deeply rooted in their area. They identify with every tree in the courtyard and their feeling of security might depend heavily on the presence of a good neighbour in the apartment above.

Residents have mobilized to stop infill projects and they have frequently been successful. But this mobilization happens rather late in the planning process, causing a great deal of trouble for the planners, who often have been caught napping. Examples of action-oriented research have demonstrated clearly that renewal and improvement methods can be combined with participation processes. If compromises

FIGURE 18: ELEVATORS WERE ADDED DURING MODERNIZATION OF THIS 1940S HOUSING BLOCK.

are required between contradictory needs and wishes it is preferable for people to be able to decide on these compromises themselves.

The Sanna action research project in Gothenburg (Heijl *et al*, 1987) was initiated by a research group of architects with the aim of trying to reconcile those ever-present contradictions in rebuilding: to preserve but renew, to renovate carefully but add new functions, to listen to the residents but achieve long-term housing policy goals. The guiding principle of their attempt to improve the renovation methods was, however, to apply the concept of carefulness about both people and buildings.

The renovation of apartment blocks from the forties was carried out by using methods that enabled the residents to go on living in the area. The research group, in agreement with the landlord, established a broad consultation process with the residents (Figure 17). Building changes had to be restricted, particularly the installation of elevators and the combination of apartments (Figure 18). In a field office, open to visitors from the area, the architects and the researchers were continuously informing people about what would happen. The field office activity was supplemented by inventories and interviews designed to illustrate the living

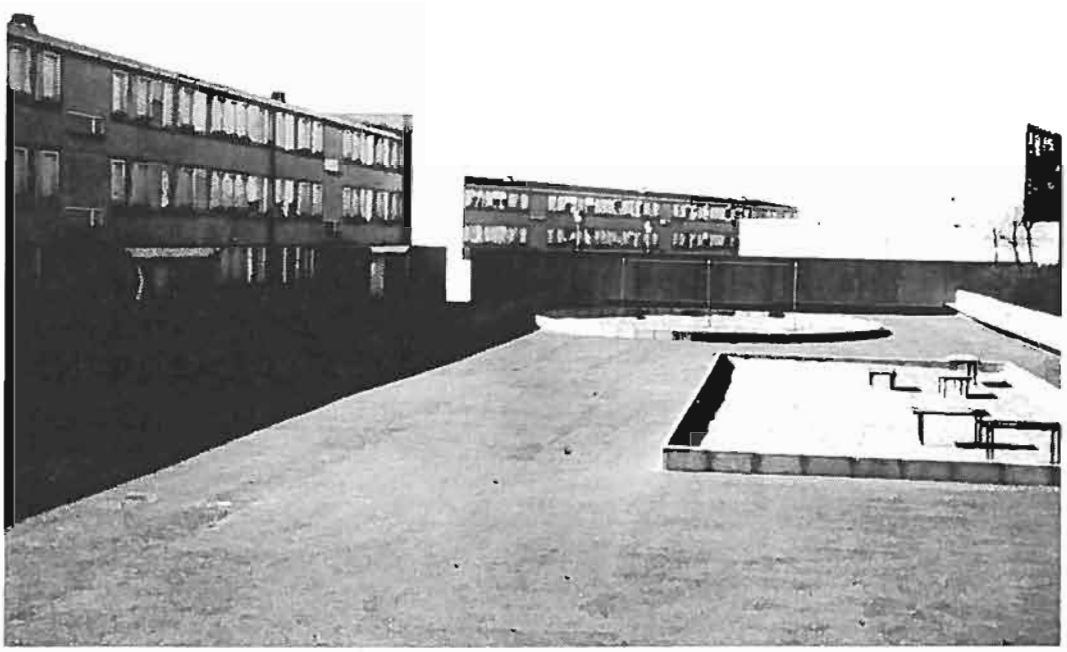


FIGURE 19: COURTYARD IN A 1960S HOUSING PROJECT. BEFORE . . .

FIGURE 20: . . . AND AFTER.

conditions in the area and, not least, get information about the residents' desires for appropriate changes to their apartments.

The results achieved were not fully commensurate with the goals drawn up in the research program, due to the heavy financial considerations involved. But in comparison to other similar attempts, there were important and successful outcomes. One third of the former residents remained in the area, some after a period of evacuation. After renovation 40% of the apartments were serviced by elevators. Service apartments for elderly people were integrated into the buildings and a day centre for the elderly was built, offering them care facilities and premises for common use. The researchers also influenced preservation of the architectural characteristics of these early functionalist buildings, which are not always appreciated by professionals today.

The researchers concluded that, even if many of the old persons complained and feared the changes in their environment during the first stages of the process, many were satisfied by the end, and that this was a result of the consultations and the quality of information the residents received.

As early as the seventies urban renewal and housing modernization in Sweden started to have an impact on the housing stock of the sixties as a result of the deficiencies in these problem-ridden multi-family housing areas. Facing a huge number of vacant apartments during the middle seventies, the government's first reaction was to introduce an improvement program for the outdoor environment of those areas. Grants for upgrading were provided, affecting a total of about 700 housing areas. The aim was to improve the poor physical conditions, characterized as windy and with low-grade mono-cultural vegetation, shady playgrounds, undefined spatial organization, and a routine design.

According to later studies (Schlyter, 1985), the implementation of the upgrading program is interesting for two reasons: first, the examples show that alternative landscape design methods exist that can establish a pleasant outdoor environment, which were not employed at the time when these areas were established (Figures 19 & 20). Second is the government upgrading grants' requirement that residents be involved in the improvement process.

At its best, this resident participation in the improvement of outdoor areas

FIGURE 21: IMPROVEMENT OF HOUSING FROM THE 60S. BEFORE . . .

FIGURE 22: . . . AND AFTER, FOLLOWING THE CONCEPT OF 'SALVATION BY BRICKS.'

involved fruitful dialogue between landscape architects and the community. People of all ages were involved both in the programming and the implementation of the physical changes to their courtyards; for instance, in discussing design ideas and new play equipment for children and even practically taking part in digging and bedding out the plants.

The government program to upgrade outdoor space for these multi-family housing areas of the sixties was later followed by more radical interventions, when the buildings became the focus of interest (Figures 21 & 22). A massive rebuilding process followed, which is still going on. In this phase, no strong ambitions to involve people in the improvement process have been demonstrated. Frequently the main interest of municipal housing companies has been to renew the socio-economic structure of these areas, swapping the former low-income people. Literally this has meant 'a salvation-by-brick' process as, among other things, the facades are dressed in brick instead of the prefabricated elements used before. So the Swedish housing policy picture is painted in contrasting colours.

Resident participation in new building and management

Participation has in fact been an issue of major interest in many countries for a long time and has been the subject of practical implementation attempts and follow-up examination by researchers in a variety of contexts.

In general, planners and government officials in Sweden have gradually become more interested in a participatory approach. The experiences around the urban renewal controversies mentioned above have surely contributed. Current modernization activities tend to be more open for people's involvement at an early stage of the process. The particularly favourable fact that people are available on the spot, and quite open to communication, provides *per se* a reasonable motivation for participation in urban renewal.

The best experiences of participation in Sweden in both planning and management are found in the field of collective housing. For instance, the planning of Prästgårdshagen's collective house involved the potential residents over a two-year period. That this house and others which had a participatory development phase function well, reflects clearly on the value of these experiences.

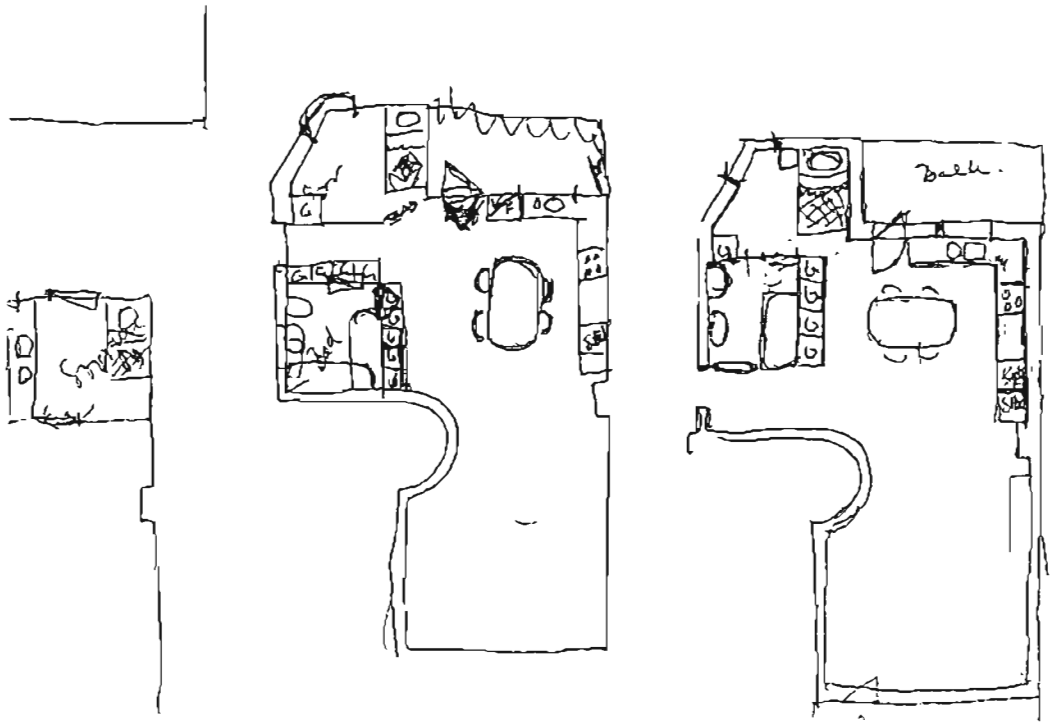


FIGURE 23: PLANS DRAWN BY PRESUMPTIVE RESIDENTS IN A PARTICIPATION PROJECT.

However, things are much more complicated in new construction, where a resident population is lacking. The most spectacular example of participation of new construction is a current undertaking in Malmö. Thirty potential residents in an apartment block have been planning their own dwellings over the past year and a half. In cooperation with the architects they started the design process from scratch by articulating their ideals of home. Their ideas were concretized bit by bit (Figure 23). The real test of the participatory process was when they had to combine their individual dwelling layouts into a building.

This unique process within Swedish experience might result in a building very soon: a quite extraordinary housing development with personally designed dwellings and a building exterior of collectively achieved architectural qualities. And, I expect, very satisfied residents. But a result of another kind is the very interesting insight this process has given into people's desires and dreams about what they expect of their dwelling. It shows that people want to downplay rational and linear perceptions of design; the layouts display a logic that would not have occurred to an architect.

Participation can also be employed after buildings are completed, when they

are already in use. With this thought in mind, any owner of a single-family house can practise participatory design inside the house—and outside, when there is space for extensions and building regulations are adhered to. In particularly dense housing developments, changes to individual dwellings are usually restricted or difficult to carry out.

In Byåkersbacken near Malmö, a low-rise, high-density example from the late seventies, the residents have the right to build extensions, and personal modifications to the architecture were anticipated in the original design process. In addition, the architect was active in advising people in the area about the possibility of enlarging the buildings; extensions that could include additional rooms on the ground-floor as well as on two storeys. Involvement in these practical building activities fostered social relationships in the area around common interests in the improvements.

This experience has been shown in a study of the area some years after people had moved in (Nordström and Nobis, 1983). The study tells how, in the case of a working class/lower middle-class area, men willing to invest their own practical work during leisure time were matched by the flexibility of the buildings. In general, men's interest in this kind of 'housework' was well documented. The women, in contrast, were more active in the preparation and the design of the extensions.

Community and participation are significantly intertwined. Social networks or the feeling of belonging at the residential level can be created while practising participation. On the other hand, participation might have roots in a sense of fellowship, or at least in common interests about ways of living. My next example in this review of Swedish examples incorporates these concepts of community and participation but adds one more, the ecological aspect.

Ecological living—a challenge for the future?

Collective housing in Sweden is attracting people who want to achieve a more 'convivial' way of living but who are not adherents of any pronounced ideology. The new Swedish ecological village movement, on the contrary, is based on a strong ideological commitment. The supporters of this movement want a lifestyle in which energy saving is a major element and in which a concern for environmental protection is clearly expressed. One might object that this kind of living has very little to do with

FIGURE 24: AERIAL VIEW OF THE ECOVILLAGE SOLBYN (THE 'SUN-VILLAGE').

urban architecture. If this should be true, I fear that the future of urban living is threatened. The survival of city life depends on meeting the threat of wasteful and polluting consumption. There are, however, clear indications of a changing consciousness. The new Swedish interest in ecological living has resulted in the setting up of a large number of ecological villages. With some modifications, urban ecological neighbourhoods might be developed, modeled on the impressive first case in Sweden, the Solbyn experiment (Karsten and Persson, 1989).

At a distance, the ecological village of Solbyn (The 'Sun Village') might look quite similar to any Swedish row-housing scheme (Figure 24). The differences become clear, however, as one approaches the buildings with their open facades and glassed greenhouses facing south and sees the richness of fruit trees in the outdoor area.

'Solbyn' is located outside the city of Lund, and contains 50 apartments in semi-detached houses. People moved into the area a year and a half ago. Before that a core group had been planning the 'village' for ten years. Their program for ecological living was based on four principles: 1) there should be a cooperative form of housing tenure; 2) the management of housing should be based on energy saving

and ecological thinking; 3) small scale communal production of goods (mainly garden products) and services should be established; and 4) the settlement should form a local community.

'Solbyn' can now demonstrate these principles as a reality. Energy saving installations in each dwelling include earth toilets, heating stoves, passive solar heating through a greenhouse verandah to the south, and equipment for garbage separation. At the common level there are areas for growing, arrangements for composting biological waste, earth cellars for storage, fruit trees and berry bushes instead of decorative plants, a newly bored well for drinking water. An all-activity building for common use accommodates a parental child care centre and is the place for both spontaneous and formalized activities. This building also contains well used guest rooms for residents' friends. Future plans include small-production enterprises to achieve some degree of self-sufficiency: a shop for home-grown products, a windmill, and a health centre.

Although the history of Solbyn is very short, the 'village' has, according to the preliminary findings of an evaluation, already realized a large proportion of its founders' intentions and expectations. There have been failures, due to some technical installations being too advanced (!) and due to the inertia of municipal authorities in the face of the need to adjust building regulations to new methods. In spite of frustrating experiences of this kind, the residents are quite excited. The intensive social interaction among the neighbours bears clear witness to the project's success at its current stage.

No element of Solbyn should prove impossible to implement in more densely urban contexts. Even garden areas can be developed within the existing urban fabric and could be incorporated into new construction schemes. We can find interesting examples of this. One is in West Berlin, where in Afrikanisches strasse, the whole courtyard of a four-storey building is subdivided into garden allotments under the control of the tenants.

A similar example from Sweden is the Lövkojan colony settlement (Bergquist and Jarlöv, 1988). This development of colony lots close to a multi-family housing area on the outskirts of Gothenburg illustrates the appropriateness of an ecological approach in a typical suburban context. The establishment of an area for leisure-time gardening—and for the enjoyment of common activities among the colony

FIGURE 25: A SELF-BUILT HOUSE IN THE COLONY AREA.

FIGURE 26: EVEN BICYCLES PRESENT PARKING PROBLEMS.

neighbours— was the result of a woman researcher's findings on how people's creative ability in the framework of multi-family housing is usually frustrated. She noticed the enthusiasm of Swedish people—and particularly of the men—for building and growing activities in their vacation houses. The colony area is now filled with a variety of self-built mini-houses and small gardens, developed over a short period of time (Figure 25).

An urban ecological approach must consider cars!

One of the very important issues of urban ecology concerns the disaster caused by cars in cities. Our everyday life today, and the future of city life, depend on how we can reduce private transportation by car. The new trend in urban design towards a more continuous and dense city form, apparent in new Swedish schemes, stresses the already urgent need to find radical transportation solutions.

A Danish woman politician told our students in Lund about her view of future transportation: trains are perfect, medium distances can be covered by cars, but for normal commuting we must bike! And we did—at least in the city of Malmö until the sixties. Records show that at that time the amount of bicycle traffic was equal to automobile traffic (Figure 26).

This utopian method of transport is already practised not only in my small city of Lund but also in bigger cities in Sweden, in Denmark and in the Netherlands, for instance. The implications for a city planning based on bikes, however, are huge, and I am not prepared to draw wider conclusions on this here. The idea might turn a great deal of our conventional thinking upside down; it might also coincide with some of the other ideas of decentralization and strengthening of local power that I have highlighted.

Conclusions

To increase livability in our urban environment by planning is not a simple question of design (although of course it is a question of an appropriate design). The important point is that social considerations must be incorporated into the design (Figure 27). Both the physical design and the social organization must work in concert to support a decent everyday life and the emancipation of people's own abilities.

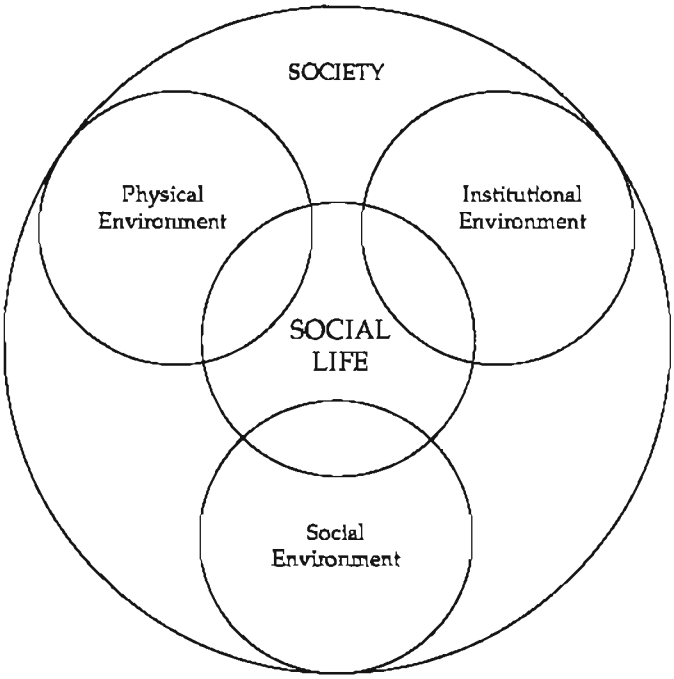


FIGURE 27: SCHEMATIC ILLUSTRATION OF THE RELATIONSHIP BETWEEN THE PHYSICAL, INSTITUTIONAL AND SOCIAL DIMENSIONS OF THE URBAN ENVIRONMENT.

The strategic question is how to provide a framework that supports us in this way, whoever we are and whatever resources we have. My review has emphasized the concept of community and how community can be created through cooperation. I have focussed on the importance of participation and ecological concern. Both practice and research indicate that these approaches to increasing livability hold promise for the future. They are part of a women's perspective, but also represent directions for a humane planning approach in general. From my Swedish point of view, another strategic issue is the creation of a positive interface between the public sector and the informal or local level.

I started by describing my own housing block in Lund, and the good qualities that characterize it in comparison with average housing production in Sweden. Many of the other examples and experiments described, one could easily argue, are biased by utopian thinking. But in any case, they exist as reasonable indications of what can be done.

Let me conclude by returning to the sphere of the 'utopian' collective housing, and quote a resident of Prästgårdshagen:

> What I appreciate most of all is not all these fantastic things we have in this house, it is the people one meets everywhere; in the elevator, in the dining room, in the laundry . . . it is such a wonderful feeling to know everybody in this house . . . but even so it is still the children who enjoy it most!

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