HIGH-RISE HOUSING - an Attempt at De-mystification

by

Irene Nicoll

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Department of Town
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University of Glasgow.

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Synopsis

CHAPTER 1 discusses the build-up of the tradition of multi-storey housing as a public sector housing form. It examines the tradition of flat living, comparing the Scottish experience to England and Wales. The main focus is a concern with the culmination of events, their relative importance and interaction, leading up to the widespread acceptance of high-rise housing during the 1960's. This is discussed at both a national and local level, distinguishing between experience in the Clyde Valley, Scotland as a whole and England and Wales. Some attempt is made to analyse the rapid contraction of high-rise construction, and the legacy which remains.

CHAPTER 2 draws together some spatial comparisons of this housing form at both the international and national (Scottish) levels. Policy implications from foreign experience which may be applicable at a local level are considered. Some attempt is made to lay the foundations for an inventory of public sector high-rise dwellings at a Scottish level. Comparisons of the nature of the stock and policy directions are drawn between Glasgow, Dundee and Aberdeen.

CHAPTER 3 reviews the literature available to date concerning the problems associated with multi-storey housing. To structure the discussion, the comment is considered in three general subject areas - economic, physical and social aspects - although their interaction and interdependence is stressed throughout. Economic aspects are concerned with the comparable construction costs of high-rise in relation to other dwelling forms, and the implications of multi-storey housing for land, labour and other capital and current resource expenditure. For convenience, physical aspects were separated to the scales of the individual dwelling, the block and the estate. Social aspects are concerned with the suitability of high-rise for different household types and the effects of household mix in fostering social relationships. The impact of high-rise on health is also discussed. The implications of child-density and vandalism on high-rise estates are considered.

CHAPTER 4 is concerned with devising an alternative approach to measuring the popularity of multi-storey estates in Glasgow. The limitations of past research - its predominant concern with attitude surveys and studies of a small scale and independent nature - are considered. The local authority housing process - the mechanism of access, allocation and control - sets the framework for an analysis of "indicators of popularity" - vacancy, turnover rates and transfer requests - on multi-storey estates. Glasgow District Council "Housing Preference Study" provides a useful starting point, although its limitations are substantial. The multi-storey sample is compared to the total population of estates in the city in terms of the "indicators of popularity", while the latent characteristics of the sample according to a range of physical and locational criteria are explored. A preliminary attempt is made, using regression analysis, to explain the variation in turnover and vacancy rates within the multi-storey sample itself. Several suggestions are proposed for a potential refinement of the model and directions for future research.

CHAPTER 5 is concerned explicitly with the problem of "difficult-to-let" high-rise estates and the range of alternative strategies currently being considered and implemented in the U.K. to tackle the issue. As policy direction is felt to be related to the nature of the problem definition, given the inadequate research by the local authorities concerned, the discussion is structured to a consideration of physical, social and housing management "solutions". These range from conventional, ameliorative measures e.g. physical improvement, social infrastructure provision, and restrictive allocation to the radical e.g. demolition, sale, tenant control. While still concentrating on Glasgow, examples are cited from a wide range of British cities.

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I have a Vision of the Future, chum,

The workers' flats in fields of soya beans

Tower up like silver pencils, score on score;

And Surging Millions bear the Challenge come

From microphones in communal canteens

"No Right! No Wrong! All's perfect, evermore"

(John Betjeman)

Introduction

"Each generation of house builders bequeaths a legacy for succeeding generations to enjoy or to tolerate, to prize or to decry" (Gittus, 1974)

The 1960's, for all theirproliferation of buildings, will certainly be remembered by many as the era of the high-rise block, as more professional and public controversy appears to have been generated by it, than by any previous building form. Given the overwhelming predominance of the public sector in Scottish housing (54.4%, (Scottish Housing Statistics 1978), compared to a national public sector average of approximately 33%), the large proportion of difficult-to-let stock, theoretical housing surpluses coincident with sustained long waiting lists, especially in the major urban areas, the concern has lain with the public sector high-rise stock. The high flat has been defined in different ways. That used here follows an official definition given in 1949 - "high blocks of flats or maisonettes, with lifts, of five or more storeys" ("Housing Manual" para. 133).

A concern for the reputation of the multi-storey arose from the recent mal-treatment of this housing form in journalistic, academic and professional circles alike. Especially in this case, architectural form has been the target of constant criticism, attributing a wide range of social, psychological, medical problems and expressions of tenant discontent with housing management to the building itself. The, somewhat controversial, thesis presented here is that there is nothing inherently wrong with high-rise housing per se, - evidence from the successful British private sector developments and foreign experience should suffice to support this claim, - but that it is an easy option for society at large to blame the buildings, rather than

to search wider for the underlying causes of their failure.

It is contended that the role of the mass media has been critical in the defamation of the high-rise block. For reasons of commercial viability, "News is what newspapermen make it" (Geiber, 1974 quoted in Richardson, 1975) Glasgow University Media Group (1976) illustrated the element of sensationalism in the press regarding industrial disputes - the same is true of high-rise flats. (Ref: Appendix A for range of examples). In illuminating the seriousness of the perceived "problem", the statistics presented in the media are not only selective but often distorted to emphasise the more dramatic aspects. For the majority, it makes for interesting reading and television viewing. But, in this way, public awareness of the severity of the problem transmits a stereotyped image of the typical high-rise block - a hub of vandalism, crime, suicide, neuroses etc.

Academics are similarly selective in their treatment of multi-storeys. Numerous case studies focus on the notorious estates, elucidating the plight of the high-rise occupant. The concern has lain with the problems faced by particular groups of occupants, especially families with young children. However, the wider validity of these investigations can be questioned as no serious attempt to adequately define the problems or to analyse the causes of differential decline has been made. Therefore, professionals, especially architects, planners and housing managers, have reacted accordingly - architects have ceased to design them, planners are looking for ways to get rid of them (demolition, sale and the like) as housing managers face the allocation, management and maintenance headache caused by the more

difficult high-rise estates. A panic reaction against high-rise has emerged on all fronts.

But, the underlying nature of the problem is not, it is suggested, concerned with the nature of the architecture itself, but is more a function of the way it has been manipulated. In 1950, Walter Gropius (one of the innovators) claimed, "The single home with a garden is more suitable for families with children in higher-income brackets who are settled.....while the rented dwelling in an apartment block is better adapted to the needs of the more mobile working-class" (quoted in Hellman, 1973). Summarising very crudely, the failure of mass housing, particularly of high-rise, can be understood in terms of the monopoly power of a small number of construction companies, within the public housing apparatus, and the powerlessness of council tenants excluded from any form of control over their housing. "The whole of social development is directed towards an increase in the personal rights of man. How can this democratic process tally with a method of housing more akin to totalitarianism in its actions and forms?" (Habraken, 1972). However, "local authority housing is not an outpost of socialism..... it exists within a capitalist system.....But it makes possible a rational and democratic system in which the allocation of housing services and housing costs is taken out of the market. At present, the system is not yet democratic or rational.....The struggle to advance beyond the first step must continue. Perhaps, more important though, this first step must be defined against the forces which seek to undermine it, ideologically, politically and economically" (Ginsburg and Clarke (1975), quoted in C.D.P., 1976b). Therefore, the solutions do not lie in architectural form alone,

but in recognising the necessity of individual involvement and control over the whole public sector housing process.

Using the example of high-rise housing, the initial aim was therefore, to clarify a few of the misconceptions which surround this housing form. But, as the limitations of past research became more blatantly obvious, the need for a comprehensive approach to analysing the differential decline of public sector housing emerged. Therefore, an initial, though somewhat crude attempt, (given the time limitations) was made to search for some causal explanations of the differential popularity of multi-storey housing estates. For the purpose of this study, Glasgow was selected because of the high percentage of high-rise stock and, of course, the availability of the data, at the level required. Proposed policies for the future of high-rise were then critically evaluated, against a range of criteria - impact on perceived problem, economic efficiency etc. Policy responses, so far, have been simplistic in the extreme because of the insufficient explication of the problem definition and analysis. Perhaps the fear is that these would merely reiterate the second-class citizen status of the council tenant and so challenge the power structure of society.

CHAPTER 1: THE DEVELOPMENT OF THE TRADITION OF MULTI-STOREY HOUSING

In attempting to evaluate the unique contribution of high-rise housing to the stock of dwellings, it is necessary to explore the different social, economic, political and technical variables interacting over time to produce the multi-storey of to-day. With this in mind, an outline of the historical development of the flat, and the tradition of high living will be sketched. The history of public sector housing policy relevant to the development of multi-storey flats, in particular the rise and decline of the 1960's will be considered.

1.1 Development of the Tradition of Multi-Storey Living

It is possible to trace the origins of high living from the first recorded beginnings in republican Rome, through its revival in early modern Europe, its generalisation as a form of mass housing in the nineteenth century to its recent apotheosis in the ubiquitous tower block. But, throughout its past, the essential characteristics of the flat as a dwelling unit have remained consistent.

A 'flat' is generally accepted as a structurally distinct dwelling, whose habitable areas occupy one floor, or part of one floor, in a building containing two or more floors. Disadvantages include increased danger of fire and collapse, hazards of falling objects associated with height, the inconvenience of noise, stairs and lifts and the imposition of restricted behaviour. These must be traded off against the compensatory advantages of ease of running, warmth, freedom from external noise, internal dwelling units on the level and neighbours nearby and, of course, the magnificent views from upper storeys.

Undoubtedly, however, the major attraction of a flat has lain, not in

its quality as accommodation, but in its locational attributes, usually close to a wide range of central activities. It is with the explanation of its spatial distribution that some clue to unravelling the web of complex variables so influential in its development lies.

Its chequered history is characterised by several boom periods which, although unique with respect to particular local and temporal circumstances, do share several common characteristics. In situations of restricted land supply, whether natural, for example by physical barriers, or artificial, for example conservationist or defensive mechanisms of containment, the major virtue of the high flat, that, in theory, of allowing more dwellings to be erected on a given area of land, can be exploited. Population pressure, resulting from socio-economic differentiation, may force certain groups to compete for restricted areas of land while more fortunate groups enjoy a generous allotment of space. These two types of pressure on land are to a large degree mutually exclusive.

The first type is exemplified by the towns of pre-industrial Europe, where the rich usually concentrated in the centre, forcing the poor to the outskirts. (Sjoberg, 1965) However, as such towns rarely grew large enough to stop the poor walking to work, this residential differentiation alone could not have produced flat-generating pressure on residential land. The second type,however, is germane to the city in industrial society, where the rich live on the outskirts and the poor inhabit restricted inner areas, where much land is taken up by the institutions which give them employment.

But, although industrial urban growth certainly often produces high

inner area densities, it will not necessarily produce flat living. Consider, for example, the small terraced cottage which typified working-class accommodation in the nineteenth century industrial towns of England. With expansion, where size began to produce difficulties in walking to work, intra-urban transport innovations facilitated movement. Spatial socio-economic differentation, with the middle classes choosing to reside in certain segments of the periphery, allowed the working class inner areas to expand. Furthermore, the change from living in houses to flats required such radical modification of organisation and attitudes among occupants, builders, investors and administrators, that it was generally regarded as a last resort, with non-flat solutions to pressure on land being exploited to the utmost.

This argument tends to suggest that the origins of the flat cannot be sought in the process of industrial urbanisation alone, its multiplication throughout the urban areas of most of nineteenth century Europe representing the extension of a pre-existing flat tradition. Multi-occupation of large town houses and purpose-built flats were common in pre-industrial Europe, beginning for example in Paris and Edinburgh as early as the sixteenth century. So, compared with continental Europe, flats are something of an enigma in England and Wales, accounting for only 10% of the dwelling stock. (Sutcliffe, 1974) Any movement towards flatted developments was discouraged, firstly by the legal system, tailored for individual houses, and secondly, by the leasehold tenure system, whereby landlords, maintaining an interest in the site value over the period of the lease, opted for the more popular villa-type developments.

In Scotland, however, with the operation of the feu system, the landlord had no further control over development, therefore, to maximise profit, usually sold out to the highest bidder. The Scottish legal system, whereby ownership of an individual floor of a house was permitted, tended to reinforce the movement to flatted living, mainly in rented tenements. Purpose-built flats were, therefore, more common and widely acceptable in Scotland, establishing a trend more akin to Continental than English tradition.

So, with industrialisation came immigration to the major urban centres. Randall (1979) notes the sustained nineteenth century population growth in Glasgow, from 77,000 in 1801 to more than half a million by 1891, a seven-fold increase. High-density housing for the working-class immigrants took the form of four-storey tenemental developments in Scotland, paralleling the proliferation of terraced by-laws and back-to-back courts in England. Health hazards, due to apalling insanitary conditions and overcrowding brought the subsequent outlawing of these house types.

But, the role of the architectural profession in the design of tenemental developments for the poor was minimal, due to social and economic constraints. After 1919, housing subsidies enabled architects to play a more active role in flat design for the public sector, although many local authorities continued to use engineers to design estates. The earliest inter-war blocks were safe derivatives of pre-war styles, with traditional construction techniques keeping heights to five or six storeys.

But, the 1930's saw a large scale swing towards flats, accompanied by an enhanced interest in their architectural potential, the notion

that they could make some monumental contribution to urban design. The "Modern Movement" architectural lobby, under Le Corbusier, was internationally influential at this time, advocating that good modern housing would be in tall blocks. C.I.A.M. (Congres internationaux d'architecture moderne) conferences throughout the 1920's and 30's investigated the theme of mass housing, assuming that apartment blocks were the most appropriate building form to utilise modern engineering techniques, while offering the most civilised way of life to the working classes and the most visually satisfying environments. But, although internationally acclaimed, the architecture of the "Modern Movement" entered British housing in a very small, sporadic fashion, through the medium of individual private clients or enterprising housing associations who opted for blocks of flats. Its uncompromisingly modern white concrete, flat-roofed designs not only encountered the opposition of planning authorities, but often hostile public demonstrations. Nevertheless, a new style for blocks of flats, modernistic rather than modern, appeared in London, Manchester, Leeds and some other cities, inspired from Viennese style, in the middle 1930's e.g. Quarry Hill.

By the 1940's, scholars of the "Modern Movement" flooded into the public offices of the larger urban councils. The potential for change, afforded by the need for large-scale rebuilding post-war, presented opportunities which replaced the widespread inertia towards technical innovation amongst the design professions during the inter-war period. By now, the ideals of Le Corbusier etc, were becoming a practical reality with the construction of the 17 storey "Unite d'Habitation" at Marseilles (1948). Inspired by this example, as well as parallel developments incorporating a scientific approach to modern building

methods and materials in Scandinavia, Britain decided to apply the latest advances in building technology to housing.

Several practical and ideological arguments influenced the movement towards high flats at that time. Ravetz (1974) provides a useful categorisation of the rationales which pervaded planning and housing practice at that time. Due to the high values of central sites, it was perceived uneconomical to build at low densities, blocks of flats presenting an economical means of achieving the densities required. The social exigency argument stressed the necessity of the working-class masses to live within walking distance of work. Establishment and acceptance of technical innovations in building promoted the widespread belief that unit building costs ought to be lower than for similarly sized houses. From the social idealist viewpoint, improved housing standards opened the gateway to good health, education, domestic life etc. - a means of translating a culture of poverty to one of affluence. Continental influence prevailed with the universal admiration of foreign experience transported by official delegations.

Architecturally, the conception of a tall building standing in a park, the "vertical garden city", attractively complemented the reaction at that time against the inter-war urban sprawl. By increasing the heights of blocks, boundless opportunities were presented to maximise the recreational potential of open space. To complete this scenario, it is necessary to slot these varied influences into the time spectrum of related developments in housing policy at both national and local levels.

1.2. History of Housing Policy

The development of high-rise housing estates in the public sector is but one manifestation of a long tradition of varying ideological and political influences on central and local government housing policy. For this reason, it is important to trace the chronology of events, explicitly distinguishing between the implications of national policy and the nuances of local circumstances. As a comprehensive historical review of housing policy is unnecessary, the discussion will be restricted to a consideration of relevant events in the build-up, acceptance and decline of high-rise in the public sector. A summarised guide to the relevant legislation is provided in Tables 1a and 1b.

a. National Level

Although some prestigous middle-class flatted developments were a feature of 19th century housing, an unfavourable image of flats persisted through to the early 20th century, with the Tudor Walters report (1918) on housing design insisting that,"modified types of such buildings might be a necessity in the centre of areas already partly developed with this class of dwelling or to meet special conditions".

Therefore, the two-storey "Garden City" suburban ideal was perceived as the housing goal of the majority when a massive programme of good quality council housing was launched to meet general needs by the Labour Government of 1924. In the private sector, however, the cheap central area flat tradition persisted due to a continued shortage of low-rent housing, low earnings and unemployment, high public transport costs, slowness of industry to decentralise and the endurance of a working-class slum culture. (Ravetz, 1974)

Table 1a: - History of Housing Policy in Relation to the Development of Multi-Storeys (1920 - 1950)

Date	Housing Document	Financial Provision	Policy Direction	Scottish Housing	Planning Document	Glasgow
1924	Wheatley Act	general subsidy for new dwellings (flat-rate)	Expansion of municipal housing			
1930	Greenwood's Housing Act	subsidy per no. of persons displaced	national slum clearance campaign			
1933		end general subsidy				
1935	Housing Act	subsidy per type of dwelling	step-up of flat building	over-crowding survey		
1944	Dudley	subsidy for high density schemes + expensive sites	against flats as family dwellings	S.H.A.C. report. (6-10 storeys possible)		
1946	Housing Act		mix of low-rise/ tall blocks		New Towns Act	Clyde Valley Plan
1947					Town & Country Planning Act	East Kilbride
1949	"Housing manual" Housing Act		flats above 10 storeys. greater variety stressed			

It was the Housing Act of 1930 which finally coerced the major urban housing authorities into large scale-flat building. Financial provision became related to the number of persons displaced by slum clearance, rather than a flat-rate subsidy per new dwelling provided (Wheatley 1924). An additional payment was provided for rehousing on expensive sites at more than three storeys high. However, while the general needs subsidy remained (till 1933), this legislation alone could not tempt local authorities into flat experimentation. The termination of the general subsidy in 1933 and later notification of the replacement of the Greenwood's provision by less generous allowances motivated some innovatory urban local authorities to opt for giant flatted estates. Housing subsidies enabled most public sector flats to become invariably self-contained dwellings, a standard even now unparallaled in the private sector. The 1936 Act even gave housing departments the power to equip their estates with community halls. But a venture of high risk, given the persistence of the "Garden City" ideal and the birth of public sector housing, diffusion of the innovation was spatially restricted as some housing authorities, for example Manchester, chose to disregard policy directives.

Naturally, the conversion to large-scale flat building had to await the slum clearance campaign of the 1950's. Post-war, due to the combined effect of the virtual cessation of house building during the war, bomb damage and destruction, a population growth of half a million and the depletion of the construction industry, housing provision became a major and pressing social problem. The first objective of the 1945 "White Paper on Housing" was the provision of a separate dwelling for every family which desired one. This

"Homes fit for Heroes" campaign was to be launched within the frame work of "planning", as intimated in the reports of the Barlow Commission and Scott and Uthwatt Committees. The spirit of socialism, welfare and reconstruction, prevalent at the time, can be gauged from the Interim Report of the New Towns Committee. Planners were to do more than avoid the mistakes and omissions of the past:

"Our responsibility is rather to conduct an essay in civilisation by seizing an opportunity to design, solve and carry into execution for the benefit of coming generations the means of a happy and gracious way of life"

The 1947 Town and Country Planning Act vested complete control over all development activity in the local authorities. It did not, however, immediately result in a home for everyone in a ten-storey block. Flats had still not achieved acceptability, with the Dudley Report (1944) firmly advising against the use of flats as family dwellings. Although this was reinforced in the Housing Manual (1949), it was admitted that in high-density areas, the housing of children in flats could not be avoided. Two-storey cottage type development was incompatible with the need for high-density redevelopment of inner city areas, where considerations of high land costs and a large existing population to be rehoused were paramount. The 1946 Housing Act sought to resolve this dilemma by recommending a mixture of houses and tall blocks for any new development, supported by financial provision for houses included in high-density schemes. Another important current of the time was the explicit acceptance of the wider role of local housing authorities. Until 1949, local authorities had been legally restricted to providing

Table 1b: - History of Housing Policy in Relation to the Development of Multi-Storeys (1950 - 1970)

Date	Housing Document	Financial Provision	Policy Direction	Scottish Housing	Planning Document	Glasgow
1952	"Density of Residential Areas"		Manual for high density layouts		Town Devt. Act	
1953	"Houses-The Next Step"		High density as solution to slum clearance/ urban containment			Survey C.D.A.'s
1956	Housing Subsidies Act	related to height of block:- up to 3 - £22.1s 4-£32: 5-£38 6+-£50 + £1.15s for each floor above 6th.	to concentrate on medium elevation			Cumbernauld
1957	"Flats & Houses"		rationale of mixed devt.			
1962				Housing Act multi-subsidy fixed at £40 per flat p.a.		
1964	NBA estd.		advice on improved construc/ tion methods	White Paper 'Housing Programme 1965 - 70'		
1967	Housing Subsidies Act	provision for dwellings of 4+ storeys:- 4-£18: 5-£14: 6-£26. removal of 6+provision	incentive to adopt medium height range	Housing (Financial Provisions) Scotland Act. multi subsidy reduced to £30		
1968	"Old Houses into New Homes"					

housing for "the working classes", but the Housing Act of that year expanded their powers, making them responsible for fulfilling the housing needs of all social classes.

The 1953 White Paper heralded high-density as a panacea for the dual problems of slum clearance and urban containment. Harold McMillan, then Minister of Housing and Local Government comments on the current thoughts on design, in his introduction to "Design in Town and Village". Advocating compactness, he states,
"But one lesson we can all take to heart is that good design is not costly - it is not achieved by extravagant use of land, wide and draughty streets or lavish expenditure - indeed the reverse. More compact building leads to better and more attractive grouping as well as saving land and reducing cost".

During the early fifties, much discussion regarding high flats took place. Amongst others, the Town and Country Planning Association was virulently opposed to them, exemplified by Sir Frederick Osborn's statement that "it was economic madness to ladle out £1,000, in extra public subsidies, to encourage the building of types of building that cost more than £1,000 more than the types 90-95% of people strongly prefer". But the debate in the professional journals was exceedingly one-sided, with the advantages heavily outweighing the disadvantages. The architectural movement which glorified city life, as a reaction against suburbia, gained momentum, joining force with the sociological evidence of the considerable expense of journey to work and the disturbing effects of displacing people and rehousing them away from their old kinship groups. In 1955, Evelyn Sharp, secretary of the Ministry of Housing and Local

Government, stated at the opening of the Royal Institute of British Architects' Symposium on high flats, "high buildings interspersed with low and middle-sized dwellings are a thing of beauty", reinforced by Frederick Gibberd's claim that "the building of tall flats gives more pleasure to more people".

Financial incentive to offset the additional cost of building high was encompassed in the 1956 Housing Subsidies Act (Ref. Table 1b for precise figures), although it is important to note that the greatest increase in scale occurs between the fourth and sixth storeys, considerable inducement to concentrate on medium elevation. Culmination of the concept of mixed development, incorporating both high and low-rise housing, was the emphasis of a 1958 government publication, "Flats and Houses", although in the foreword the Minister emphasised, "I certainly do not mean it to encourage the use of higher densities or multi-storeyed buildings where they are not really necessary".

At the same time, the comparative failure of the Government's New Towns policy to relieve the pressure on the waiting lists to the extent originally anticipated, and the difficulty of decanting "overspill" populations led to increased reliance on high-density accomodation in urban centres. Furthermore, the Minister himself favoured high blocks, stating the need to break down the blind opposition to high flats that seemed to exist in some towns, and adding that they were not the "housing hell" some of their opponents seemed to think.

The late fifties marked the beginning of the widespread diffusion of high flats. McCutcheon (1975) quotes the number of tenders in

dwellings in high flats in London as rising from 14% in 1955 to 60% in 1960, compared to a national figure at that time of only 20.5%. The example set by London County Council was later repeated by the large urban authorities.

Increasingly detailed technical advice was forthcoming in the early 1960's, with a 1962 government publication "Residential Areas - Higher Densities" relating the nature of any new development specifically to density thresholds. Where building was to be carried out at high densities, above ninety persons per acre, it was recognised that tall blocks of flats would become necessary, but need not predominate until densities of at least 140 persons per acre were reached.

But, high density became synonymous with high-rise at that time, because of the directions of technological advance in industrialised building methods and lift installation, architectural obsession and revulsion against urban sprawl. As yet, the relative expense of high flats was not viewed as a deterrent. It was widely believed, from foreign example, that flats were actually cheaper to build than houses, the expense in Britain explicable by lack of experience. The house-to-flat comparison of the high cost lobby was held to be a red-herring - the average cost per unit of the higher block was no more than if five to six storeys were used throughout, while the development costs for low-rise housing estates in the New Towns were considered to be far higher than for flatted estates. Research at the Building Research Station showed that above five storeys the price did not increase so markedly, the expectation being that costs would soon be lowered by the use of a scientific approach to the organisation of building work, the increased use of mechanisation

and standardisation of components and design, taking advantage of the repetitive nature of high flat construction.

But, the general level of cost consciousness in local authorities during the fifties manifested itself in the low provision and standard of communal amenities, the type of dwelling provided and the quality and style of work produced. The provision of personal services in high flats (pipes, cables, gas, electricity and telephones) was costly, proving substantially cheaper to construct large flats in high blocks than smaller ones. This became a primary factor in the housing of families with children above the ground.

However, the Ministry's advice during the fifties by means of design manuals, planning bulletins, circulars, speeches and informal consultation was not meant to encourage the indiscriminate resort to multi-storey housing which resulted. (Cooney, 1974)

b. Local Level

It is important to examine the subtle differences in timing and phasing of Scottish planning and housing legislation, in relation to the local situation in Glasgow. At the beginning of the twentieth century, reaction against traditional tenemental housing took a variety of forms. Although no outright condemnation of the tenement per se was forthcoming, suggested guidelines for improving conditions by adopting well-defined space standards were proposed. Under a series of Housing Acts post - 1919, Glasgow Corporation showed determination to improve housing conditions by building estates on a considerable scale, both at the periphery of the built-up area e.g. Knightswood, Mosspark and on inner city redevelopment sites e.g. Blackhill. But, practical implementation of this housing goal met

severe obstacles in terms of land supply alone. Hence, boundary extensions were legitimised in 1926, 1931, 1938 Quinquennial Review of Development Plan, 1960), resulting in the city almost doubling its areal extent to accommodate its population.

The 1930's, following national trends, saw a movement in municipal house building from meeting general housing needs to dealing specifically with the relief of those living in overcrowded conditions. Therefore, flat building occupied a greater proportion of new build, as it was considered desirable to rehouse in flats at high density to reduce the need for large-scale decantation measures. Furthermore, as slum clearance concentrated on the poorer sectors of society, it was thought prudent to provide them with the cheaper form of flatted dwelling. (Smith, 1974)

However, the question that was arising at that time was whether Glasgow should build upwards or outwards in the future. Design advice in Scotland largely followed national directions, with the S.H.A.C. report "Planning our New Homes" (1944) advising,
"if lifts are provided, the number of storeys clearly depends on the conditions of the locality, and we do not altogether exclude the possibility that, in some districts, particularly in the large cities, blocks of flats of six to ten storeys may be appropriate, provided that the overall density of development is not excessive, and ample provision is made for open space, recreational facilities etc."

Further, pertinent recommendations to emerge then were, firstly, the paramount importance of site layout, suggesting,"Future schemes of flats should be designed as independent 'residential units', with the blocks located, for example, in parallel and the space between the

blocks tastefully planted"; secondly, the abhorrence of large scale application, stating "flats should not be planned on such a scale that they became 'garrisons' or 'colonies'.....a single scheme should not comprise more than 400 - 450 flats"; and thirdly, hinting at higher density standards, "the application of rigid density formulae to schemes of flats is unreliable and misleading. Schemes properly planned to higher densities are often more satisfactory than schemes badly planned to orthodox density".

It is noteworthy that the minority notes of reservation were expressly concerned with the move to high-rise. Drawing on data from the Barlow report, well-publicised psycho-medical inferences of crowding, and an extensive attitude survey towards high living, they concluded that the recommendations of S.H.A.C.,
"had been arrived at without full regard to the need for decentralisation as would result from a balanced planning policy for the whole of Scotland which we regard as essential if highly overcrowded areas are to be properly dealt with by other means than a simple re-shuffle of their population into multi-storey flats".

This dilemma over design had similar repercussions in planning circles. Dispute over the ideal spatial configuration of the Clyde valley settlement pattern was rife, culminating in the "Clyde Valley Plan" (1946). In this, Abercrombie recommended a Green Belt, encroaching into the built-up area, and the planned displacement of 500,000:- 250,000 to be rehoused within the city, 250,000 to be dispersed to four new towns and expanded towns in the region. Glasgow Corporation, on the other hand, rejected the need for overspill, insisting that the population could be accommodated by strictly regulating densities within the boundary limits set. This conflict

was to have a profound effect on the decision to build high in Glasgow. Although the recommendations of the "Clyde Valley Plan" were supported by central government, Glasgow agreed to overspill only reluctantly. The decision to build upwards on such a large scale must be viewed as a reaction to this.

However, after the designation of East Kilbride, under the 1946 Act, further provision for new towns was removed in the early 1950's, politically motivated, although ostensibly on grounds of economy. Expansion arrangements under the 1952 Town Development Act did not apply to Scotland. Thus, Glasgow faced the dilemma of unsatisfactory overspill arrangements, and an acute shortage of building land within the city for new housing, exacerbated by the need to leave extensive areas of flat ground to accommodate the new industrial estates. High density, peripheral flatted estates, predominately three and four storey tenements, were the immediate response to this crisis situation, although still insufficient to satisfy housing need e.g. Drumchapel, Castlemilk,Easterhouse.

A survey of areas requiring comprehensive redevelopment was undertaken in 1953, with powers to pursue this course of action granted in 1957. But the scale of this policy merely exacerbated the perception of an acute shortage of land within the city, as the gross densities of the CDA's meant rebuilding would displace vast proportions of the original population. Necessary overspill provision was forthcoming in the form of the Town Development (Scotland) Act (1957), whereby Glasgow was granted permission to make arrangements for its excess population to be settled in other local authorities with land surplus to their own requirements. 1956 also saw the first exploration of the

practical feasibility of high-rise in Glasgow, the concern of a joint working party of Glasgow and Scottish Office officials.

Also embodied in the 1957 Act was the necessary financial provision encouraging the building of multi-storey blocks. By supplementing the normal subsidy with two-thirds of the additional costs of building high, a conscious decision was taken by the Scottish Office to push Glasgow towards high-rise. In many respects this appears to have been a panic reaction to a pressing problem, caused by the failure to implement a workable and substantial overspill policy for Glasgow during the late 1940's and early 1950's (Smith, 1974)

Therefore, although Glasgow had lagged behind the innovatory English urban authorities, due to financial difficulties of comparatively high capital and maintenance costs which were then realised, attractive subsidy incentives and central government directives promoted the cause, although many were still sceptical about both the need for, and the consequences of higher and higher densities. The early CDA's embodied this "modern"approach, planning to incorporate increasing proportions of their populations in various types of multi-storey development. (Ref: table 1c)

Table 1c Multi-Storey Dwellings in Comprehensive Development Areas

C.D.A.	Date of Written Report	Total Dwellings Planned	% in towers/ slabs
Hutchesontown/Gorbals	1956	3,154	57.1
Pollockshaws	1957	2,222	56.9
Anderston Cross	1959	1,165	70.3
Townhead	1962	2,000	100

Source: adapted from Corporation of City of Glasgow, C.D.A. Written Reports 1956 - 1969.

But, although unsatisfactory overspill arrangements may have triggered the initial enthusiasm towards high-rise, some other issues were relevant in sustaining the drive. The early high-rise, comparatively prestigous developments, gained widespread architectural acclaim which may have aroused both public and professional acceptance alike. A post-war shortage of traditional building materials necessitated alternative housing forms, manifested in the early temporary prefabs, although high-rise may have been an inevitable outcome of this movement. Moreover, the severe shortage of skilled labour for the construction industry, identified by S.H.A.C. (1944), meant factory-produced units were becoming increasingly acceptable.

On social grounds, the tradition of life in the Glasgow tenement was perceived as an invaluable forerunner to the acceptance of a high flat existence (Jephcott, 1971b). Furthermore, the relative rapidity of construction was especially attractive in the Glasgow case, faced with the moral obligation to ease intolerable conditions. At that time, Glasgow's earlier attempts at housing provision, especially the peripheral estates, faced severe criticism, therefore, by the decision to swing towards a totally new building form, they had nothing to lose.

1.3. The 1960's"Bandwagon"

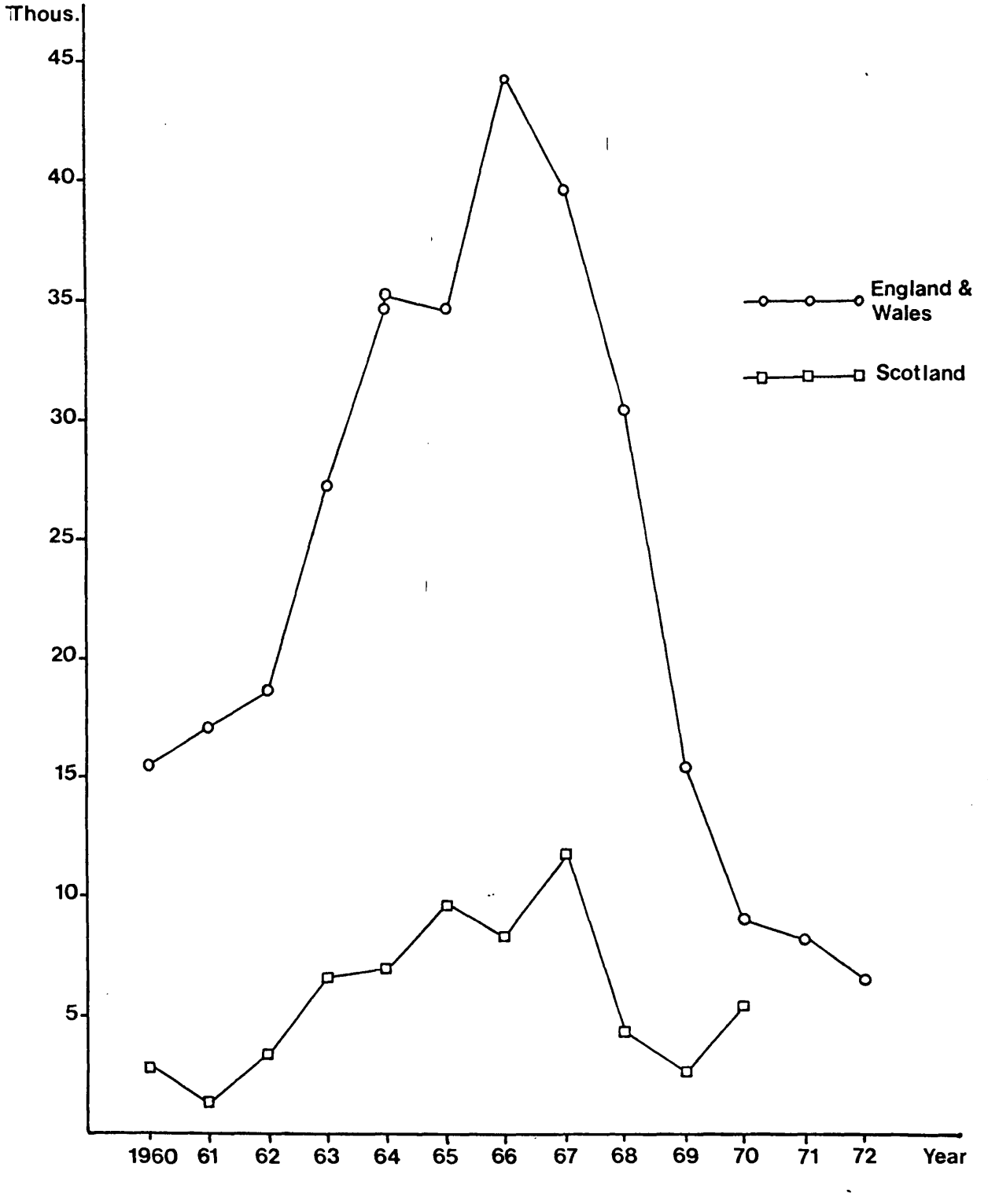
The 1960's is generally accepted as the decade of the high-rise block. The construction of high flats increased dramatically during the early 1960's. The number of approved tenders for dwellings in flats over five storeys tall rose from 17,160 in 1961 to 44,174 in 1966 in England and Wales, while in Scotland comparative figures were 1,405 in 1961 to 11,279 in 1967: increases of over 250% and 800%

respectively. (Ref: Fig. 1) The basic problem is not simply to identify probable causes for the upsurge, but to establish their sequence, comparative importance and interaction. It seems appropriate to consider this at a national level, although divergences from the norm in the Glasgow case will be made explicit.

Cooney (1974) suggested that at no time did the government make explicit the need for local authorities to build larger amounts of multi-storey housing,rather a sequence of decisions on a variety of policy concerns generated increasingly strong central government commitment to it. The role of the Ministry of Housing in definitive policy formulation was very weak. Although it did encourage effort in particular directions, the non-obligatory nature meant many housing authorities were free to choose particular policy directions as a response to local needs. Uncertainty of central government direction is exemplified in the Glasgow case, where the Scottish Office initially encouraged high-rise as a solution to the housing crisis, subsequently withdrawing their promotion as Glasgow Corporation adopted the policy on a scale not envisaged.

Certainly, financial provision of the late 1950's made the proposition increasingly attractive (Ref: Table 1b). Perhaps the fixing of a flat-rate subsidy under the 1962 Act in Scotland facilitated the adoption of a large-scale high-rise policy, in comparison to the differential ratings in England and Wales. For administrative and technical convenience, the National Building Agency was established in 1964 to advise on improved methods, both in traditional and industrialised construction, and to offer its services to all concerned with building. In effect, it signified a new form of relationship between the

FIG.1: NUMBER OF FLATS OF 5 STOREYS AND OVER APPROVED FOR LOCAL AUTHORITIES AND NEW TOWNS.



SOURCES: England & Wales - DOE Housing Statistics (Feb.1973)
Scotland - MHLG No.22 (Aug.1971) Housing Statistics Gt.Britain.

Government and the house building sector of the construction industry. Although its role had no particular commitment to high building per se, it functioned as a catalyst, spreading knowledge of systems building and industrialised methods, so appropriate in the erechon of multi-storeys. Although multi-storeys were not specifically promoted by the government, the Ministry's attitude in 1965 may be gauged by Richard Crossman's warning to local authorities that "the amount of encouragement they get will depend very largely on their readiness to adopt modern techniques of system building" (quoted in McCutcheon, 1975).

Furthermore, the larger operators in the construction industry were keen to utilise central government subsidies to move into council housing in a big way. Attractive "package deals",encompassing architectural, engineering, construction and related services, provided the smaller, ill-equipped local authorities with a system which allowed them to solve their housing problems, at the same time giving them complete freedom from the complexities of the new building process themselves. The industry's enthusiasm may be gauged from the fact that, by 1964, there were over 400 systems on the market. Originally an architectural ideal, control of the innovation increasingly lay more with other interests and institutions, such as building contractors and government, becoming in the process increasingly remote from its utopian origins.

A number of political overtones supersede the financial, administrative and technical explanations of the acceptance of high-rise. Post 1964, the role of council housing had changed, and with it had gone the acceptance of the socialist goal of a decent house as a right for all.

In fact, the 1964 White Paper almost apologised for the necessity of building council houses at all, viewing owner-occupation as very much the norm of the future, the public sector relegated to a temporary, though necessary, provision to meet the exceptional needs faced by massive slum clearance. By the same token, the target for public sector building was rapidly stepped up to "solve" the problem quickly. High-rise presented the vehicle for achieving this goal. So, the quantity, not the quality argument of the 1950's was accepted with even stronger justification.

The necessity of maintaining an urban population concentration can also be viewed as politically motivated. Dispersal implied a declining source from which to extract the rate base element, necessitating increased reliance on the central government quota for public expenditure. Furthermore, political expediency, in particular the necessity of maintaining a large working-class contingent as some guarantee of sustained political control, must have concerned the Labour-dominated metropolitan authorities.

Therefore, it can be seen that policies of planning and housing, evolved within the political ideology of the time, increasingly opened the way to a serious case for high-rise housing, that administration reinforced this, particularly the attractive subsidies, and that sophisticated technical advice enhanced the feasibility of the idea.

1.4. Contraction

Between 1966 and 1967, the number of tenders for flats above five storeys had fallen in England and Wales by 12%, while in Scotland, for that year an increase of 142% was recorded. (Ref: Fig. 1)

The graph indicates the rapid decline in England and Wales between 1966 - 1970, from 44,174 to 9,709, a fall of 78.1%. In Scotland although the scale of the contraction was comparable (75.5% between 1967 - 1969), this rapid pace was concentrated into a shorter time-span. Between 1969 - 1970, high-rise fortunes changed in Scotland, with a substantial upturn of 184%, a drive unparalleled in England and Wales at that time.

It is interesting to speculate on the reasons for this differential rate of decline. Firstly, the time-lag effect, noted in the timing of the decision to build high in Scotland and England, may also have been operational in the decision to cut-back. Secondly, differences in the financial arrangements for multi-storeys at that time may be important. Under the 1967 Housing Subsidies Acts, the additional provision for dwellings above four storeys was drastically reduced in England and Wales, while the comparable reduction in Scotland was not nearly so severe. (Ref: Table 1b)

Nevertheless, the figures indicate a significant volte - face in policy directions. The crisis state of the economy in 1967, with the devaluation of the £ meant severe cut-backs in public expenditure (£100 million's worth of building work was cut). This, together with the recognition of the sustained high capital costs incurred in building multi-storeys, instigated a substantial reduction in central government subsidies. In addition, with the realisation of the high financial outlay on housing subsidies, the cost yardstick system was introduced in 1967, a measure designed to promote economy in public sector house design. The ungenerous nature of the strict yardstick costings meant expensive high-rise schemes suffered an initial

disadvantage with respect to loan sanction.

It has also been suggested (C.D.P., 1976a) that the construction industry, having exploited central government subsidies in the developmental stages of industrialised building, were then ready to transfer their technological advances into more profitable ventures, particularly office building.

Corner-cutting in the construction of the early high-rise received widespread publicity in 1968, with the collapse of Canning Town's Ronan Point. Additional safety measures were enforced thereafter, a further burden on costs. Furthermore, Parker Morris standards required the satisfaction of expensive internal design criteria, alien to the earlier notion of high flats as a speedy, cheap solution.

Government housing policy switched in 1968 from a focus on construction to rehabilitation. In the White Paper "Old Houses into New Homes" the Labour government stated that as a result of "a very large increase in house-building in the last few years, it is possible to plan for a shift in the emphasis of the housing effort".

The late 1960's also saw increasing concern over the disconcerting social effects of living high. In 1967 the Ministry of Housing and Local Government began its survey on the "Estate Outside the Dwelling", one of the objectives being to investigate the effects of high buildings on tenant satisfaction. At the same time, S.H.A.C., was pressing for study to be undertaken as soon as possible because they regarded that sociological research since 1952 had only "touched upon the problems that can arise through the widespread growth of

multi-storey flats as a form of urban housing" (quoted in McCutcheon, 1975). Widely publicised as unsuitable for families, the main thrust of the public sector market at that time, they were perceived as "storing systems" for immense, though unpredictable, psychological and social problems in the future.

On aesthetic grounds, architectural revolt against the application of their utopian dream resounded. Taylor (1967) describes the "towers and slabs which stick up proudly in an exurban waste of spoil heaps.....the heat of the technological revolution in a concrete walled flat tending to congeal into grey dampness of fungus-blotched walls." In architectural circles, high-density low-rise was in vogue.

Any analysis of the decline is complicated by the simultaneous interaction of a spectrum of events - the effects of social concern, the removal of subsidy, the recession, the introduction of a new housing policy, the change of emphasis in design, Ronan Point, and the time-lag in the planning and construction of high blocks. At a general level, the cumulative effect of the factors against high flats tipped the decision against their continued construction, while at an economic level, the anticipated economies had failed to materialise.

The statistics show that the building of high flats in Britain has virtually come to a halt. Yet, despite the demise of the high flat, due to the slow rate of change in the public sector stock, this form of accommodation will remain a significant contributor to housing requirements in the immediate future. However, it seems that most of the blocks built in Britain have failed to embody fully

the original concepts: the quality and quantity of technological and community facilities provided have often been more of an insult by their presence than their absence. Ironically, criticism of these buildings may always be countered by the argument that the implementation of the concept was faulty, not the concept itself. It remains, therefore, to evaluate the current situation, with respect to high-rise, with a view towards proposing policy directives to maximise the potential of the legacy of the 1960's.

CHAPTER 2: MULTI-STOREY HOUSING - SOME SPATIAL CONSIDERATIONS

Due to the widespread significance of multi-storey housing, it is important to consider some local, national and international comparisons. In the present study, the aim is not to provide a comprehensive analysis, but merely to place some perspectives on the local situation into a wider context. It is hoped that by drawing on examples of experience elsewhere, some contributions may be made to policy formulation at the local level.

2.1. International Context

In almost any part of the globe, multi-storey housing has now become a common feature of the urban scene. As concern over population increases and the shortage of land accessible to core urban areas continues, multi-storey solutions to a variety of housing problems will remain popular. Where building land is physically restricted and population pressure severe, exacerbated by rapid rates of household formation, high-rise housing forms predominate e.g. Hong Kong, Japan, Scandinavia. Elsewhere, the attraction of downtown locations, in accessibility terms has merited high-density housing solutions in an attempt to offset the expense of desirable central sites e.g. U.K., U.S.A. Also, where efficient public transport systems operate, high-density housing forms cluster round nodes in the station network. Therefore, high-rise housing forms,either in inner city locations or optimal sites in accessibility terms are an ubiquitous urban feature, with few exceptions.

Cultural differences may make a significant contribution towards some explanation of the differential success of multi-storey developments as a mass housing form, in the "developed" world

between East and West, and between 'developed' and Third World societies. The key to this lies in the different roles of housing in different types of society, influencing the housing needs, aspirations and expectations of the population.

Rural-urban differentials, on the whole, tend to be more extreme in 'underdeveloped' societies, instigating high levels of migration, especially to the largest cities. Furthermore, natural rates of population increase within the major cities, especially among immigrants, exacerbate the social polarisation of population sub-groups into distinctly contrasting residential areas of luxury and squalor. High-rise housing forms generally tend to accommodate the more affluent, with high-density 'shanty' developments for the immigrant sector, with few examples of any large public sector programmes (exceptions in Latin America are the new cities of Brasilia and Cuidad Guyana, although the emphasis is on provision for low paid groups in regular employment). High-rise, in these situations, follows the general trend of successful private sector developments, in that owner-occupiers have a financial stake in the value of their property, while absent landlords maintain "desirable" tenants by fixing high rent levels.

However, large public sector programmes do not necessarily imply unsuccessful high-rise developments as can be seen from any example of urban centres within the Eastern bloc. Certainly, the necessity of communal facilities within high-rise lends itself to the practical implementation of socialist ideology. Jephcott (1971 b) cites the case of Moscow, where experimental 16 storey "housing of new living" even incorporates communal kitchens and shared domestic

equipment. In this case, the key to success would seem to lie not in the exploitation of housing as a capital gain, but in the notion of housing as a "community commodity".

Western parallels to this can be found in the case of multi-storey cooperative housing ventures in Scandinavia. Success is obviously related to the achievement of an efficient,acceptable trade-off, from the tenants' viewpoint, of costs (in terms of time, finance) and benefits (in terms of control and savings on management and maintenance). However, as this delicate balance is difficult to achieve without experience, the degree of central and local government commitment to the application of the concept in the public sector is crucial. The pro's and con's of employing cooperative housing in British high-rise will be considered in greater depth later. Suffice it to say, meantime, that it should not be viewed as a panacea for high-rise problem estates without caution.

Exploration of more subtle tenure differentials, however, may provide some solution to the high-rise problem estates of the public sector. The Canadian example is a useful working model to be considered. Examples exist of public and private sector housing integrated within the same estate, with local authorities either buying off or guaranteeing rent for a couple of blocks, built to the same design by a private developer. Stigmatisation is avoided, in this way, as the outsider is unsure which housing is public or private.

Alternatively, experiments in flexible design may permit housing arrangements to match the needs of the household. Donnison (1967),

for example, cites the case of Denmark, where blocks of flats built for housing associations incorporate a design which permits each floor to be divided in eight different ways, offering multiple permutations of residential arrangement. However, little progress in this field has been made in Britain as local authorities were firstly, unwilling to outlay any additional expenditure, and secondly, did not see the need for flexibility of design with opportunities for high levels of mobility afforded by a large public sector stock. But, they failed to realise that although large, their stock was relatively homogeneous in nature compared to accommodation offered in the private sector, and in addition, that high rates of mobility may not be desirable, from the point of view of establishing "stable communities", nor administratively practicable.

Therefore, by considering a few international comparisons, some impression is gained of the large scale of adoption of high-rise housing forms at a global level. Not only is it interesting to speculate on socio-cultural and political factors which may explain the differential success of multi-storey developments, but also to gain some insight into possible alternative policy options from the breadth of foreign experience, which may be applicable at a local level.

2.2. National Level

For the purpose of this study a full-scale analysis of multi-storey housing at a national level seemed unnecessary. Regional variations in multi-storey building for England and Wales have already been well-documented(2) However, as information at a Scottish level is relatively sparse(3) compilation of the available data seemed

worthwhile for comparative purposes.

Latest figures available (Planning Bulletin March, 1979) quote some 500,000 out of a total local authority housing stock of 6,500,000 i.e. 7.69%, in the U.K. to be in buildings of more than five storeys high. Dunleavy (1977) quotes a figure of 1.8 million people living in 450,000 high-rise flats in Britain, 92% of which were in large towns and cities, 80% in conurbations and at least 40% in London alone. Disaggregated figures for Scotland were unobtainable to date, although during the decade 1960 - 1970, 62,049 flats in buildings over five storeys high had been approved for local authority and new town building, 6.7% of the total Scottish public sector stock at 1970. It would appear, therefore, that at least 12.4% (without accounting for new-build post 1970) of the total U.K. multi-storey housing stock has been built in Scotland. Allowing for completions post 1970, this proportion would appear to be in line with the representation of Scottish public sector stock to the U.K. as a whole, a figure of 16.26% in 1978 (Scottish Housing Statistics).

Although definitional variations as to what constitutes a multi-storey dwelling occur between local authorities, accepting Housing Management Department definitions, some 39,550 multi-storey dwellings have been built in the four major Scottish cities i.e. 7.9% of the U.K. total. Data on the remaining multi-storey dwellings (at least 22,499) in Scotland was not available, although it seems fair to assume that the majority of these would be concentrated in the Clyde Valley especially the new towns. Dickson (1970) quotes a figure of 1,600 dwellings in high-rise housing blocks over ten

storeys high in Motherwell and Wishaw, while Smith (1974) gives a total of 1,068 high-rise dwellings in East Kilbride in 1971. A policy of provision of luxury flats in multi-storey blocks for childless couples was a feature of Development Corporation Housing in both East Kilbride and Cumbernauld. But, local divergences in policy regarding high-rise housing can be gauged by comparing Cumbernauld (Smith (1974) quotes 35% of all dwellings (1966 census) to be in shared blocks) with Irvine, the Household Survey (1975) indicating that only 1.75% of all housing was in high flat form. The pursuit of a high-density housing plan in Cumbernauld (designated 1957) was a reaction to the sprawling low-density first wave new towns, while Irvine (designated 1967) epitomises the beginning of the anti-high-rise era.

But, what of the distribution of multi-storey buildings between the four major Scottish cities? From table 2a, the marked concentration within Glasgow itself, accounting for 69% of the total is apparent.

Table 2a

Multi-Storey Dwellings in the Major Cities of Scotland (1979)

(Local authority, excluding S.S.H.A.)

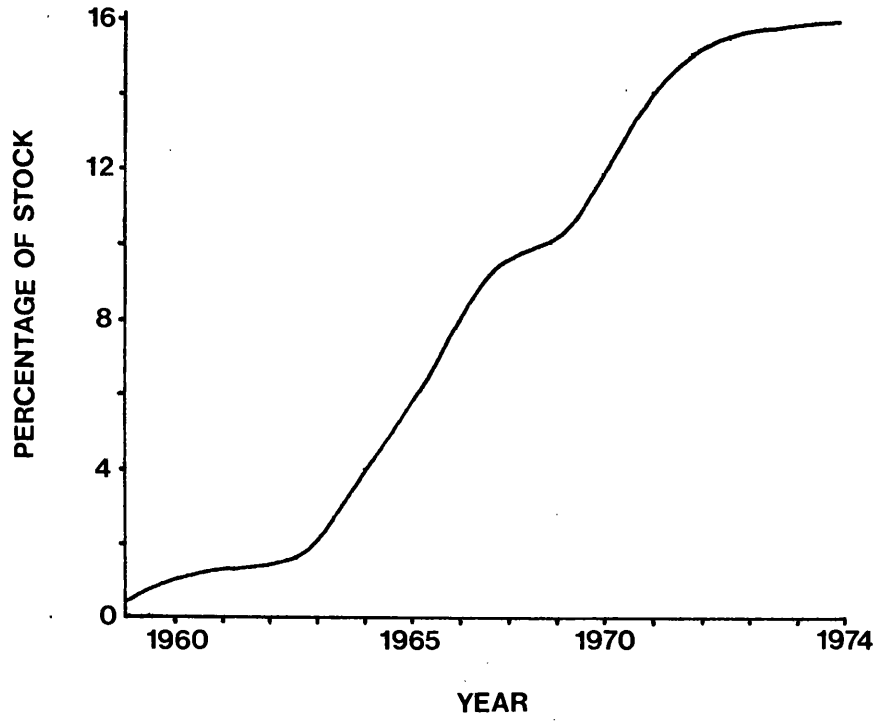
	Total No. of dwellings	% of public sector stock	per capita(1) ratio
Glasgow	27,132	15.7	0.03
Aberdeen	4,233	10.8	0.02
Edinburgh	3,865	12.9	0.02
Dundee	6,079	10.9	0.013
	39,550		

1. population estimates from Scottish Housing Statistics (1978)

Source: Glasgow - Housing Management Report (1977): Edinburgh and Dundee - Scottish Development Department: Aberdeen - Housing Management Department.

In addition, the Glasgow figure represents the largest proportional representation of total public sector stock, with multi-storey dwellings comprising 16% of the total, followed by a figure of 13% for Dundee. Figure 2 illustrates the rapid 1960's build-up to this peak level.

Figure 2. Multi-storey Dwellings as a percentage of all Glasgow Corporation House Stock



Source: "Farewell to the Single End" (1975)

Not only does Glasgow have the highest multi-storey dwellings per capita ratio within Scotland, but apparently it holds the U.K. record for the largest number of towers per head of population. (B.B.C: February, 1979).

Although generalisations that the majority of high-rise blocks were constructed during the 1960's are frequently stated, some significant

differences in construction dates are apparent within the major Scottish cities (Table 2b). It may be that the earlier high-rise, as innovations in design, construction allocation and management, are the least popular, and therefore more difficult-to-let.

Table 2b: Percentage of Blocks Constructed During Different Time Phases

	Date of Construction		
	pre - 1964	1965 - 1969	post - 1970
Aberdeen[1]	9	38	53
Glasgow	19	67	14
Dundee	10	52	38

1 refers to date first let.

Source: Cities of Aberdeen, Glasgow & Dundee District Council Housing Management Departments (1979).

Comparing the proportions in the above table, it would appear that Aberdeen is anomalous in that the majority of its high-rise blocks were constructed post - 1970. By far the majority of blocks in Glasgow and Dundee, 86% and 62% respectively, were completed pre - 1970. Although part of the Aberdeen enigma may be explained by the fact that dates given refer to actual letting as opposed to construction dates, policy changes to concentrate on construction of multi-storey blocks as sheltered and special-purpose housing, and to discontinue high-rise for standard family accommodation may account for the differential. While Aberdeen is still constructing multi-storey sheltered housing, Glasgow's last high-rise developments were completed in 1976, with a policy for all new-build now commited to low-rise housing, for all household types. This is expressed in the 2nd Housing Plan, asserting that Glasgow District Council will,

"provide all accommodation for more than four persons in the form of houses with gardens; for three or four persons in the form of houses or flats with gardens; for one and two persons in the form of flats, but with a maximum of 3 storeys". (Appendix 2, p.128)

With regard to the discontinued provision of high-rise family accommodation in Aberdeen and Glasgow, and the stated commitment of Glasgow District Council to permit families to transfer out of high-rise or to a lower-floor (below 8th) if requested (Housing Management Report (1977) p.89 (e)), it is interesting to compare the apartment-size distribution of the multi-storey stock. Using apartment-size as an indicator of household type assumes the letting policy to be one of matching exactly the household to the most suitable size of dwelling. Although this was perceived desirable and therefore, operationalised in the past, policies of under letting the "difficult-to-let" dwellings appear to be increasingly popular to maximise utilisation of the stock.

Table 2c: Apartment-Size Distribution of Multi-Storey Dwellings

	Apartment Size				
	% 1	% 2	% 3	% 4	% 5
Glasgow[1]	3.6	35.9	56.0	4.5	0
Aberdeen	1.0	31.0	68.0	0	0
Dundee	0	26.0	74.0	0	0
All Scottish[2] public sector housing	14.6		51.5	30.8	5.1

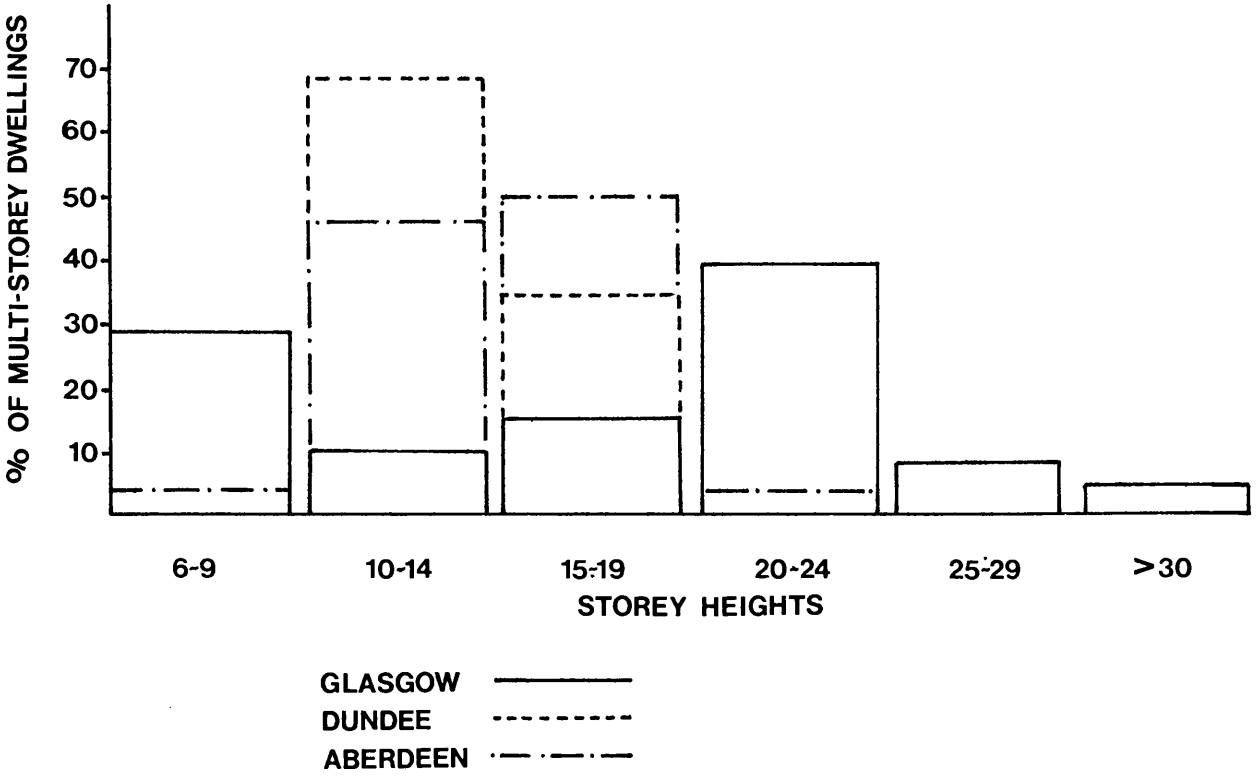
1. Excluding deck-access multi-storeys.

2. Scottish Housing Statistics (1978)

The outstanding feature of the statistics presented in table 2c is the concentration on provision of 3 apartment dwellings in multi-storey blocks common to all three cities. Compared to the public sector average of 51.5% for Scotland as a whole, the multi-storey range of 56% - 74% is significantly high. This is somewhat surprising, given the reservations regarding the suitability of high-rise for family accommodation voiced by the minority S.H.A.C. report (1944) (Ref: Ch.1), and the traditional allocation of 3 apartments to young couples with 1 or 2 children. The figures also illuminate the more widely ranging provision of different apartment sizes in multi-storey blocks in Glasgow, (although still concentrated between 2 and 3 apartments) compared to Dundee and Aberdeen.

This wide ranging theme recurs when comparing storey heights of multi-storey blocks between the three cities. (Ref: Fig.3)

Figure 3: Storey Heights as a Percentage of Total Multi-Storey Stock



From the histogram, it is apparent that Glasgow can boast both the highest and most varied height range of multi-storey blocks. In fact, Jephcott (1971b) asserts Glasgow's multi-storey housing to be the highest in Europe. Dundee's blocks are wholly concentrated into the moderate 10 - 20 storey height range, as are 94% of those in Aberdeen, while in Glasgow this category accounts for a mere 24% of the total. Regarding location, Smith (1974) noted that the Comprehensive Development Areas contained a substantially higher proportion of blocks with twenty and more storeys than the rest of Glasgow, but perhaps unexpectedly, a lower proportion of blocks with thirty or more storeys. Therefore, considering storey-height, Glasgow's high-rise are somewhat extreme in comparison to Dundee and Aberdeen, with 47% of the stock in blocks above twenty storeys high. On questions of scale however it is measured, Glasgow's high-rise are therefore on extremity.

The notion of Glasgow's public sector stock having reached "saturation point" regarding multi-storey blocks is often used as justification for the official policy of discontinued construction. Regarding policy, a comparison of the Scottish cities, although accounting for only a small proportion of the U.K. multi-storey stock, can be viewed as a microcosm of British policy, given the diversity of present directions. As already stated, Glasgow has decided to discontinue multi-storey construction, as have East Kilbride and Cumbernauld (Smith, 1974). Regarding its "problem" high-rise estates, while demolition and sale have been considered, at present the notion of a joint student-tenant cooperative is receiving favourable acclaim. (Housing Plan 2, (1978) p.129 - policy note 14). Dundee also has experience of multi-storey blocks of low-letting demand, proposing

a programme of "coordinated inter-agency action" to identify the problems of such areas and hasten the process of improvement (Housing Plan 1979 - 84). In particular resource investment for multi-storey blocks is to take the form of the installation of community/play lounges. Aberdeen, on the other hand, has experienced few problems in letting high-rise, as the system appears to cope with the stated preferences of applicants on the waiting and transfer list in relation to the type of housing sought. Perhaps some of the success can be attributed to the standard consultation process between intending residents and housing management officials, with a view to spelling out the advantages and disadvantages of this type of accommodation, prior to acceptance of tenancy. Recognition of the ignorance of prospective tenants in relation to a completely new housing experience and education before the decision is taken, may make a significant contribution to the continued desirability of multi-storey residence within the city.

The diversity of policies on high-rise living implies a lack of attention to leadership from S.D.D./D.O.E., where opinion clearly changed as long ago as the mid - 1960's. The last statement of official policy - "The Social Effects of Living off the Ground" (1974) took the form of an occasional paper, without the necessary driving force of a circular. It would appear from the comparison of the three Scottish cities that policy responses must be geared to local situations, with any form of standard policy statement which could be offered by central government of little practical utility. However, the need for some central advisory body to draw together and evaluate local and foreign experiences, with a view to making recommendations and posing suitable alternatives to meet local needs, seems imperative. Perhaps, this function could be performed by the Housing Services Advisory Unit.

NOTES:

1. See McGee, T.G. in Emrys-Jones (1975) for an explanation of this process in S.E. Asia : Gilbert (1974) re Latin America.

2. For example, see Gittus (1976) pp 175 - 176 : Cooney, E.W. in Sutcliffe (1974).

3. Smith, R in Sutcliffe (1974) considers multi-dwelling building in Scotland from 1750 - 1900, although makes little attempt to distinguish between multi-storey housing and multi-dwelling building in drawing urban comparisons.

CHAPTER 3: PROBLEMS ASSOCIATED WITH MULTI-STOREY HOUSING - A REVIEW OF THE LITERATURE

Recent adverse publicity in the press and media has illuminated the apparent dissatisfaction of residents with the 1960's public sector developments, stressing in particular the plight of the high-rise occupant. While only the most newsworthy items hit the national press, housing management departments are only too aware of the difficulty of letting flats which fall vacant. Over 5% of all high flats (i.e. 20,000 dwellings) have reached such a poor condition that they are officially described as "difficult to let" even though most blocks are barely ten years old (Hillman, 1976).

An extensive literature has built up over the years, reporting the results of individual and comparative case studies of various types of high-rise development. With regard to the provision of public housing during the past decade, there are many dimensions to consider. They include trends in architectural style, the economics of building and construction, the financial policies of central and local government, the varying demographic structure and hence, differing housing needs of population sub-groups, the articulated preferences of tenants and the whole decision-making process whereby these priorities are reconciled. Although the tone of the literature is concerned very much with attitude surveys, this is supplemented by professional opinion-social workers, doctors, educationalists etc - who are very much concerned with the housing situation of their clients.

To structure the discussion, this comment is collated and considered in three general subject areas - economic, physical and social aspects - although, as will be seen, they interact together in a complicated

fashion and their individual effects are cumulative and interdependent. A theme of costs against both anticipated and realised benefits will be continued throughout.

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3.1. Economic Aspects

Financial aspects of alternative forms of high-rise development have been consistently to the fore. The evidence is difficult to summarise accurately, since the bases of the various estimates are not strictly comparable. But the general impression, from the sources quoted, is of a pattern of differential costs between high and low-rise schemes that has remained remarkably consistent.

a. Construction Costs

Anticipated economies of high-rise were a major factor in their initial acceptance (Ref: Chapter 1), although the relative expense of high-flat construction was recognised in the mid 1950's. Self (1957) reckoned the cost of an average four person flat, in a block of six or more storeys, to be more than twice that of an "ordinary" council house. As construction costs per dwelling, however, were thought to increase more slowly as storey height increased, the additional payments above the sixth storey did encourage really tall buildings.

But with experience, the anticipated economies did not materialise as expected. The same size of flat was estimated by the Parker Morris Committee (1961) to cost £2,500 in a block of eleven storeys, compared with £1,800 for two storeys, a differential of 28%. In addition, Parker Morris recommended,

"for homes in flats or maisonettes, special attention should be given to lifts, balconies, sound insulation, refuse disposal, safety and to the design and management of play space, on the general principle that such accommodation should provide, for their occupants, an environment as workable and as satisfactory as for people who lived in houses".

These specific design-related standards, unique to high-rise, meant

additional costs would be incurred, although it is impossible to estimate the level, as local authorities were selective in their adoption of the recommendations.

In 1963, the Housing Yardstick Manual quoted building costs for four storey and higher blocks of flats at between 25 - 30%, and as much as 75% more than similar accommodation in houses. Stone (1964) maintained, in London, construction costs of dwellings, built to Parker Morris standards, were 44% greater for 15 storey blocks, while for the same size of flat in low-rise, the increment was only 20%. In the provinces however, the differentials were wider, in the region of 70% and 40% respectively, due to the uniformity of multi-storey costs by systems building, compared to the regional disparities in traditional house building materials.

In reality, this was a far cry from the original estimation of an average 7 - 9% increase maintained by Parker Morris initially. This anticipated increment was justified by the sentiment, "Good homes are worth paying for, even at the sacrifice of some other things; and compared with expenditure on many luxuries, they offer outstandingly good value for money".

The Civil Appropriation Account (1966 - 7) maintained that high-rise was, on average, 30% more costly than low-rise. Realisation of the economic inefficiency of a high-rise policy, M.H.L.G. circular 36/37 asked local authorities, "to reappraise their policies for housing densities and layouts, where there appeared to demand a high percentage of high-rise dwellings".

Where the cost differential between low-rise flats and houses has reamined relatively consistent (Gittus, 1974), that between high-rise

and houses has been more variable, seemingly increasing in scale through time. High-rise costs were found to be 50% more per dwelling, and 80% more per square foot of dwelling space than two-storey houses (D.O.E., 1971). As assessment by the Building Research Station (Stevens and How, 1972) calculated the cost of a high-rise flat at £5,800 while a comparable house (with more than 30% more floor space) would cost £4,400. Osborne (1975) maintains that comparable costs of multi-storey flats may be up to 75% greater.

b. Cost Constituents

As average construction costs comprise several components of capital expenditure, it seems appropriate to attempt to analyse the financial implications of these elements individually. Land, labour, capital resource expenditure, and the implications of high-rise for current expenditure, in terms of repairs,management and maintenance will be considered.

b. (i) Land

As housing is by far the largest user of urban land, and something like one fifth of total local authority house production costs go on land acquisition alone (C.D.P., 1976a),it seems imperative to briefly consider the role of the land market in high-rise housing. As the total amount of land within an urban area is essentially fixed, apart from boundary extensions, the structure of land values have profound implications for the spatial distribution of public sector housing and vice versa.

Initially, land acquisition costs for high-rise developments were anticipated as representing a means of achieving considerable economies in construction. Firstly, it was in the interests of

private capital to minimise the areal extent of public sector housing freeing highly valued sites, either central or access-related, for more profitable ventures e.g. office development, commercial or industrial use. But, in relation to the consumption of urban goods and services and the availability of large local labour pools, the proximity of large population concentrations were desirable assets. Therefore, a high-rise policy solved this dilemma in the interests of private capital, although as a corollary it implied a certain sacrifice of working-class interests. Secondly, rural preservationists were keen to employ the space-saving properties of high-rise, high-density developments, as a check on urban sprawl. The opportunities of increasing open space by increasing the height of blocks were demonstrated by Gropius in 1930, although the practical difficulties of making use of such space were not appreciated. L.C.C. Town Planning Committee in 1956 used, as one of their justifications for a high-rise policy, the fact that they "made possible green open space and the maximum public use of the ground" (McCutcheon, 1975). However, social benefits realised have proved insignificant, in that, in practice, the communal land freed by building high has had little intrinsic value for the estate or community at large. Community costs incurred in terms of expenditure on maintenance and high levels of vandalism and crime were unforeseen at that time. Thirdly, real economies in land purchase have been thwarted by the application of mandatory open space standards. Benefits of land purchase saving could only be achieved where central area redevelopment, arguably where public recreation facilities were already ample, made it impossible to adhere to the rigid criteria set.

Regarding intra-urban location, central to any consideration of the urban land market is the well-established inverse relationship between price and distance from the city centre. This distance decay function tends to have the effect of amplifying the significance of the relationship between land utilisation and density of development, especially in attractive central locations. According to Stone (1970) new public authority houses in low-rise developments (2 - 4 storeys) ranged between 70 - 120 persons per acre, while high-rise densities extended from 140 persons per acre at 5 storeys to around 200 when blocks of 20 storeys were employed. However, as Sharp (1968) had previously indicated, buildings can achieve the accepted maximum density of 70 rooms per acre without rising above three storeys. On the evidence, therefore, density-related arguments used in the push towards high-rise, proved to be unfounded.

But on social welfare grounds, high-rise housing presented an in situ direct attack on the abject housing conditions of the poor inner city residents while simultaneously minimising the diversion of land resources from rural to urban use, and without any equalisation of housing standards across urban areas, in particular the building of working-class housing in middle-class areas. Due to severe rigidities in the land market, the low-rate of turnover, a function of the historic tradition of spatial allocation and the traditional diseconomies associated with locational transfer, high density high-rise redevelopment entailed the minimum necessary change of the status quo. Above all, it avoided the reorganisation of local government which a redistribution of land for housing the inner city population would have necessitated. Thus in land terms alone, although no real economies in land purchase were made, economies

were achieved in the resource allocation of the management of the slum problem via high-rise solutions.

b (ii) Labour

Industrialised building techniques, utilised in high-rise construction, differ from traditional building in their use of new materials, large factory-made components, new methods of delivering materials to the building site and the mechanisation and reorganisation of on-site processes. Although conflicting theories as to which was the best method of industrialised building were debated, the pervasive feeling of the time was that ultimately housing would be produced in factory type conditions, if not completely in a factory. This had several implications for labour.

In terms of productivity, the rapid rate of construction possible meant more efficient utilisation of the scarce labour available. However, in the long term, this very rapidity may be one reason behind the recent step-up of resource input on structural repairs. Furthermore, in the expansion of the labour pool to meet demand, the less-skilled could respond rapidly sufficiently adaptable to the systematic mechanical process. In terms of labour costs, all-weather continuous production and the rapidity of the process were relatively attractive in comparison to traditional methods.

b (iii) Additional Resource Inputs

Once the major technological hurdles inherent in building high had been surpassed, it has been argued that savings could be made on design. Usually, once one or two basic floors had been prepared, the amalgamation into a unit and subsequent block layout required little effort. However, intra-block communal facilities e.g. lifts, refuse chutes, laundries etc add to the expensive operational costs.

Basic material costs are generally regarded as higher than traditional local materials due to the necessity of standardisation compared with regional disparities in local materials. Although standardisation usually implies economies of scale, this is hindered by higher transport costs due to longer distances and frequent trips of bulky goods from factory to site.

High rise usually imposes additional weighty engineering and labour costs in terms of site modification prior to construction, Gittus (1974), for example, outlines the case of Cruddas Park, Newcastle where costly foundation work was a significant element. Regarding infrastructure, she argues that capital savings on roads, sewerage etc appeared dramatic by building high. However, Brugman (1971) stresses the costliness of high-rise in San Francisco in terms of the additional strain on public services e.g. police, fire and especially transportation. It seems, therefore, that, although capital outlay on infrastructure can be relatively low, especially in serviced locations, implications for revenue expenditure may be paramount.

The economies of communal facilities on the estate were recognised by M.H.L.G. (1967) "The Needs of New Communities". It expressed an absolute conviction that,

"to build houses without parallel provision of community facilities and amenities will result in the unnecessary creation of social problems.....this short term saving in local authority expenditure may well turn out to be a false economy. What is saved and more may have to be spent by the personal social services in the rescue of families in distress".

In addition, high-rise seem prone to immense unforeseen capital outlay.

The collapse of Ronan Point imposed altered safety standards, with the government ordering local authorities to check and alter designs where necessary, a provision estimated to be ten times more expensive than strengthening the components at the manufacturing stage (Dunleavy 1977). The burden of physical improvement e.g. recladding at Red Road, Glasgow compares favourably with demolition costs, where construction debt is still outstanding. Economic implications of alternative courses of action will be considered later.

b (iv) Current Costs

In terms of current expenditure from the Housing Revenue Account, the balance seems tipped definitively against high-rise. McGinty (1974) asserts that, in terms of maintenance costs, they may be two to seven times more expensive than two-storey houses. Jephcott (1971b) found in Glasgow (1969 - 70) that the annual maintenance cost per high-rise dwelling was £21.75 compared with an average cost of £8.39. This cost differential is not, however, due to any additional dwelling maintenance, but to the complex service engineering required in tall buildings - lifts, heating etc - which are expensive in both pure cost and energy terms. Management costs must be high due to the additional personnel required for supervision e.g. caretakers.

In conclusion, high-rise dwellings are economically inefficient as a public sector housing form. Of the total cost of high-rise construction of £1,000 - £1,500 million, approximately 40% was due to the increased costs of high building (Dunleavy 1977). Extra costs of high-rise were met largely by generous state subsidies, but the high maintenance costs fall on the public sector tenant, through the system of 'rent-pooling'. Therefore, the burden has fallen on the council

tenant to face the expense imposed on local authorities by succumbing to the wishes of speculative land dealers, private developers and innovators in the construction industry.

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3.2. Physical Aspects

The physical attributes of estates and dwellings influence resident satisfaction in a number of ways. It is useful to consider this at three levels - that of the dwelling, the block and the estate itself. Attitude surveys dominate the literature, because as Mannheim (1936) points out

"a human situation is characterisable only when one has taken into account those conceptions that the participants have of it, how they experience the tensions and how they react to the tensions so conceived".

a. Dwelling

Divergent views abound in the literature as to the relative levels of tenant satisfaction with high flat life. But this is not merely a function of the dwelling itself, but of the past housing experience and aspirations of the occupant. Osborn (1975) asserts that, even in the 1930's "everyone knew multi-storey flats would be unpopular", illustrating this by drawing on inter and post-war opinion polls which showed preference for a house at 85 - 90% as against a flat. Reynolds and Nicholson (1967), from a study of six mixed density estates, found tenants to be more satisfied with the dwelling than with the estate outside. Jephcott (1971b) found a generally high level of satisfaction (90%) with the physical character of the flats "dismissing the chronic grumblers", although this is hardly surprising when one compares the relatively high amenity standards offered to the physical criteria experienced in the traditional tenement.

In the continuing debate of the comparative qualities of flats versus houses, tenant satisfaction levels are highly researched, although case study data is inconclusive with support for both factions, largely

dependent on household type. Preference of high-rise occupants for a house (71%) was stressed by the DOE (1970) from a study of estates in Leeds, Liverpool and London. Based on applications for transfer, this strong desire for a house could not be independently asserted as due to a dissatisfaction with the high flat itself, as complementary factors e.g. desire for suburban rather than central city locations weighed heavily.

General satisfaction levels are, however, unsatisfactory indicators in that they conceal a range of aspects of the physical design of the high flat dwelling. By conventional standards, high flats provide good accommodation in that they are structurally sound, possess the full range of basic amenities and have mostly been built to Parker Morris space standards. However satisfactory the dwelling appears on paper, several problems continue to recur.

Regarding space standards, Best (1966) emphasises the restrictiveness of high flat life with the increase in personal income promoting a general desire for greater living space both in and around the home. M.H.L.G. (1970) reinforces this, instancing complaints about sizes of kitchens, bedrooms, and especially, the distinct lack of storage space and accommodation for the traditional male hobbies. In relation to space, balcony facilities often cause dissatisfaction in their underutilisation due to bad design and danger for children.

Condensation in high-rise flats has recently attracted the attention of the media, especially so in the Glasgow case.(1) Severe dampness, however, is not inherent in multi-storey flats, but is a function of the ventilation and heating systems supplied. Hillman (1976) cites the case of Oak & Eldon Gardens, Birkenhead, where underfloor electric

heating was installed, demanding a relatively low capital outlay. High running costs and the inability of tenants to meet them were never really considered a potential problem. Adamance of various local authorities concerned that the dampness fault is not structurally caused has meant the blame is firmly and unfairly levelled at the failure of the individual tenant.

Tenant satisfaction with the dwelling itself must, therefore, be a trade-off between the various costs and benefits of a high flat existence, specific to the conditions on a particular estate at a particular time. However as Langdon (1966) states,
"we need to study the social environment so that we can create surroundings which make it easier for people to do what they want to do and have to do, to live the way they want: and make it unnecessary for them to do what they do not want and would not otherwise have to do"

b. Block

It is important to examine tenant satisfaction levels with heights of dwelling, within particular types of block, with the range of intra-block communal facilities and communal space.

It may be expected that people respond differently to different heights above the ground. Willis (L.C.C. 1955) found most families to be well satisfied with their position within the block of flats. Perhaps a significant element in this is the initial mode of allocation of flat, the degree of choice given to the tenant at that time and opportunities for mobility. Jephcott (1971a) sees the 10th floor as a critical threshold level, with existence below that level remarkably less strained, due to fewer physical difficulties, than above. In dwellings at very

high levels, lifts and play supervision problems are exacerbated. M.H.L.G. (1970) cites that more than 20% of all households living off the ground had applied for transfers to live at ground level.

However, a study in Stockholm found that 37% of tenants preferred a flat no more than four storeys high and 17% wanted to live in a block over nine storeys high, most of these preferring the top-most storeys. Not explicable by cultural differences a G.L.C. height preference survey (1968) displayed similar results.(2)However, on medical grounds, H.D.D. (1974) conclude,
"There is thus evidence that living in high flats precipitates an increase in certain types of illness and that height of the dwelling above the ground may be significant".

On height, the evidence suggests a preference for extremes. The lowest floors are popular because of nearness to the ground, convenience for children (Maisels 1961) and lack of dependence on lifts, while the top floors are favoured for quietness and privacy. Since it appears that the middle floors are less popular, generally the taller a block, the larger will be the number of dissatisfied tenants.

Concerning block type, D.O.E. (1972) found no significant correlation between satisfaction levels and the nature of the block (i.e. balcony access, tower, slab etc). However, the visual characteristics of the blocks were found to have a strong influence on attitudes, with a general appreciation of a variety of building forms as opposed to a predominance of slabs and very high points which were felt to be too massive and institutionalised. In addition, within high-rise schemes, they found the overall density of the estate to have little bearing on

general levels of tenant satisfaction. However, in facilitating social contact the nature of the block may be important. For example, the access balcony type has proved successful in assisting the formation of social relationships (Cooney 1961: Harrington 1964). Best, (1966) emotionally stresses the disastrous effects which could result from the inflexibility of intra-block layout, a common feature in all block types.

Communal facilities intra-block, e.g. lifts, rubbish chutes, laundries etc cause endless problems in a high flat existence. D.O.E. (1970) advocate the installation of internal drying cupboards in high flats because of the difficulties with communal laundries due to carrying distance, problems of supervision, rotas etc, although evidence from Stevenson et al (1967) suggests a high degree of satisfaction with similar arrangements. Residents in the Melbourne study were also content with the rubbish chute facility, although a problem expressed was the inadequacy to cope with the additional load at weekends.

Lifts, the life-line of the high flat tenant, are generally a bone of contention, due either to inadequate provision (e.g. Red Road Glasgow, where 2 x 8 person lifts serve blocks of approx. 500 people), frequent breakdowns due to poor maintenance provision, exacerbated by vandalism. Additional lift provision has been suggested to ameliorate the deficiency (e.g. at Red Road) in addition to the installation of emergency generators (G.D.C. policy) to ensure maximum regularity of service. Stevenson (1967) suggests the provision of a 'goods' lift with capacity to accommodate bulky items to ease the problem.

Most case studies express concern over the problem of excess intra-block noise generation. Usually inferior sound insulation within

the flat itself and the continuous operation of communal mechanical devices amplifies noise. With high density living, greater noise disturbance from neighbours is traded off against decreased noise levels from outside. Deprivation of 'immediate' visual stimuli (Burch, 1969) in high flats may exacerbate the effects of noise levels. M.H.L.G. (1970) found noises within the block itself to be four times greater than those outside. Children's play and people using communal facilities were the largest contributors to this. Sensitivity to noise obviously varies between individuals, although more than 50% of respondents felt they had to attempt to be quiet to minimise disturbance of neighbours. Medically, noise disturbance may be of some concern as one third of all households interviewed contained someone whose sleep was disturbed by noise.

Communal areas within blocks are often hostile, alien areas e.g. corridors, halls. A variety of proposals e.g. notice boards, decoration, planting have been made in an attempt to "personalise" these areas, installing some sort of identity feature. However, too often these proposals are regarded as a waste of money due to the opportunities presented for vandalism. (Alternative approaches to vandalism will be explored more fully in the section on social aspects). In conclusion, the nature and type of block seems to have little direct influence on tenant satisfaction within high-rise, although intra-block issues of concern for the residents could be ameliorated by sensitive investigation of user requirements, with design and management adaptation in response.

C. Estate

Several studies have concentrated on the estate level, noting the importance of appearance, relationship of blocks to each other, and

to open space and the importance of facilities on the estate.

On appearance, the major conclusion from H.D.D. (1974) was the importance of the physical attractiveness of an estate in influencing resident satisfaction. Appearance referred to the bulk, the nature of the blocks and the spaces created. Detailed design and maintenance of the blocks and estate were found to be more important than purely building form (D.O.E., 1967).

Concerning the relationship of blocks, D.O.E. (1967) found an explicit residential preference for estates to have an "open" appearance. Building layout should be designed to avoid outlook onto blank walls, areas devoid of vegetation and activity and above all, buildings should not overshadow each other (D.O.E. 1970). Newman (1973), heavily criticised for his 'architectural determinism' approach (e.g. McKean, 1973: Hillier, 1973) emphasises the paramount importance of building layout on high-rise estates in the creation of 'defensible space' - a mechanism perceived to increase the conception of territoriality and public surveillance to assist in the prevention of vandalism and crime. In the belief that architecture has contributed to the breakdown of law and order in society, he sees the solution "by grouping dwellings in a particular way, by delimiting paths of movement, by defining areas of activity and their juxtaposition with other areas and by providing for visual surveillance, one can create - in inhabitants and strangers - a clear understanding of the function of space and its intended users. This will be found to have led to the adoption by residents, regardless of income levels, of very potent territorial attitudes and self-policing measures".

Newman's notions are interesting in that he explores the possibility

of using space to stabilise social order. However, Baldwin (1975), from a study of crime rates in Sheffield, found no evidence that high-rise developments with a lot of 'common areas' have higher recorded offense rates than other developments with more enclosed space. Vandalism, as an aspect of the estate's appearance, will be considered directly as a social problem.

Regarding open space on estates, high-rise seem to suffer disproportionately from damage to the environment (H.D.D. 1974). Newman (1973), critical of the notion of abstract communal public areas, feels the fact that they are public decreases any territorial feeling people may have, therefore they do not defend them. Initially policy favoured a certain degree of private open space, although this seems to have been ignored when the "community" notion was in vogue. S.H.A.C. (1944) suggested "schemes of flats should include provision on a limited scale, of allotments for those tenants who want them". Although M.H.L.G. (1963) commented specifically on the importance of landscaping and design in promoting "happiness" on high-density estates, design criteria seem to have focussed more on the creation of "hard architecture" to minimise the incidence of vandalism.

Many high-rise estates, especially in peripheral areas, consist almost entirely of housing as if they were planned on the assumption that the life styles of their residents could be compartmentalised with home, work, shopping, education, leisure etc all spatially dispersed. But few life styles are like this, and there is a long history of literature which points out that this kind of separation causes many of the problems and discontent on these estates.

Community facilities on high-density estates were considered in

M.H.L.G. (1963) report, "Plans to house families at high-density should provide some measures to compensate for the adverse features of the environment..... The higher the densities, the more complete the communal amenities should be". Regarding timing and phasing, M.H.L.G. (1967) emphasised the need for community services and facilities to be provided at an early stage in the occupancy of an estate.

As the requirement for these facilities has been recognised and authoritatively stated for so many years, one wonders why the reasons for their underprovision have never been fully explored. For example, despite a thriving tenants' association the Sandyhills (High Flats) Association in Glasgow, after ten years of request, still have no provision for a communal meeting hall. Furthermore, the provision of public transport to the distant neighbourhood shops - the lifeline of the elderly population - is still awaited. Pickett and Boulton (1974) feel "as is usual with municipal estates, the development of non-housing construction is left until later". But why should this be the case? Allegations of cost cutting in community provision and unkept promises instil disenchantment with housing management and housing satisfaction in general provoking tenant complaint, conflict and general unrest. Satisfactory community provision should be a right. Even in 1918, Tudor Walters recognised this,
"it is not enough merely to cover the ground with streets and houses. The site should be considered as the future location of a community the larger the scheme, the more varied will be the requirements". Even so these strong sentiments appear to have been ignored.

Regarding the physical aspects, contrary to popular belief, from the

literature it seems more important to the tenant to have dwellings well designed, constructed, maintained and managed, in a pleasant environment, serviced by ample community facilities than to opt for a particular type of building form. Several policy implications follow from this conclusion and will be considered later.

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3.3. Social Aspects

Much of the concern and speculation over the use of high flats, especially in the press and media, focuses on a wide range of social issues. A large volume of literature has recently emerged, dealing with the suitability of high-rise for different types of household, especially the concern for families with children, the nature of household and social mix, the formation of social relationships on estates and the physical manifestations of social problems, especially crime and vandalism. The studies reported here, however, do not offer many consistent and interrelated findings and the need for different directions of research, improved design, especially in the explication of hypotheses and the careful monitoring of policy changes is apparent. An attempt will be made to explicitly divorce the social issues, for practical discussion purposes, although their interrelationships with the physical and economic aspects already considered cannot be over-stressed.

High-rise living poses a variety of problems to residents and therefore different people are affected in different ways. But the success or failure of tall buildings is largely determined by the type of household living in them (H.D.D., 1974). Therefore the stage in the family cycle will be a recurrent theme in the following discussion.

a. The Household

Stage in the family cycle has been identified as a major variable related to satisfaction with high flat living. D.O.E., (1972) explored the feelings of different household types towards living high (Table 3)

Table 3: Attitude to Living High by Household Type

Households Living Off the Ground	% unhappy
households with all children under 5	39
households with some under 5, some over	31
households with all children over 5	14
adult households	12
elderly households	10

Source: D.O.E. 1/75 "The Social Effects of Living Off the Ground"

a) (i) Families with Children

All research clearly indicates that families with young children living off the ground experience severe problems, closely related to the age of children. Children in flats are seen to suffer from lack of social contacts, with potential effects on health and future educational development. Concern over child safety in play can be the source of psychological strain on mothers, triggering off a chain reaction to other members of the household.

To summarise the extensive research on children in flats, play provision appears to lie at the crux of every debate. H.D.D. (1974) conclude "At very high densities (where most schemes are high-rise) as many as 87% of families with children have considered facilities for children's play to be unsatisfactory".

Relating indoor play to design criteria, Maizels (1961) found anxiety about safety a major concern. With 50% of mothers complaining of low barriers on balconies, 25% of danger due to lifts, 18% from staircases, restrictions were often imposed on any unsupervised movement of the child. Outdoor play, stressing the importance of adult supervision,

especially of pre-school age children, has also been related to physical factors. Most studies (Morville, 1969: Downing and Calway, 1963) found that the percentage of children who played outside decreased the higher the family lived, with serious implications for the social network and experience of the child. To extend this, children from low-rise houses have been found to play out alone at an earlier age and for longer periods than those from high-rise buildings. But to suggest, as some reports do, that children in high flats will necessarily by shy, withdrawn with retarded learning ability is to indulge in a degree of environmental determinism that is neither theoretically acceptable nor logically justified from the evidence.

While high flats are continually the target of media attack, other building forms may present similarly acute, though different, problems for child's play. Stevenson (1967), noting the play difficulties presented by 4 storey walk-up accommodation, suggests that families with children may, in future, be better housed in high-rise blocks, an interesting contrast to present British policy directions. H.D.D. (1974) conclude "wherever possible families with young children should be allocated houses. If density or other design factors make this impossible, only the dwellings on the ground or at worst the first floor of a multi-storey building should be considered". Commendable in theory, practical implementation of this model appears more difficult, given the high percentage of "family accommodation" on multi-storey estates. For example, although Glasgow's policy is to allow families with children a transfer out of multi-storeys or to a lower floor, the threshold level is still set at seven storeys. Amelioration of play problems given a transfer from the sixteenth

to the sixth floor must surely be negligible.

In relation to the nature and range of play facilities, most studies stress the importance of a variety of play provision accommodating all different age groups as more essential than any given extent of play space. As with other community facilities, there appears a need for tenant participation in the choice and design of projects, rather than the present practice of imposition of "standard" amenities.

a (ii) Adult Households

For adult households, it seems the advantages of a high flat existence are maximised. D.O.E. found 39% of childless adult households preferred flatted accommodation, indicating a trend towards higher than average blocks. (Those households with school children explicitly desired even higher floors still). Advantage of ease of running, coupled with large disposable incomes to spend on leisure time makes the appeal of a high flat to this category of local authority tenant parallel its attraction for middle-classes in the private sector. Note (Table 3) that only 12% expressed unhappiness with living off the ground.

Single people of working age indicated an overwhelming preference for a flat of their own (D.O.E., 1971). A policy of housing them off the ground would free land for housing families with children at ground level. Communal facilities offered and social relationships in a high-flat are particularly appealing to this group. High-rise dwellings could help satisfy this widespread unmet need for self-contained flats for single people, although this policy direction is hampered at present by the determination of priorities for allocation, tenancy legislation and not least by the design to suit "family" needs.

a (iii) Handicapped and Elderly

For handicapped people, high-rise dwellings present many unexploited attractions. Neighbours are usually accessible under cover, alarm systems may alert residential caretakers in case of emergency and communal facilities may be of special benefit to the disabled in comparison to traditional independent housing forms.

Research findings on the elderly living off the ground appear to be somewhat contradictory. While the views, quiet and security may attract this age range (only 10% felt unhappy living high), the fears of loneliness and isolation are strong disincentives. Regarding the ideal level above the ground, as results differ, it is difficult to generalise. Suffice it to say that, on balance, dwellings a few floors from the ground with lift access would avoid the disadvantages of ground floor life (insecurity, noise etc) and present less extreme problems of isolation compared with higher elevations.

The limited medical evidence available on high flat life concerns all household types. On physical conditions, evidence from Hird (1967) and Fanning (1967), concluded that people in flats, especially children, young women and the over 40's, were more likely to suffer from respiratory infections, bronchitis and pneumonia than similar house dwellers. Fanning suggests this is due to the difficulty of access to the open air, not to overcrowding, supported by his correlation between a steady increase in incidence of disorder with height of the flat above the ground.

On psychoneurotic disorders and emotional disturbance, the same studies suggest their incidence to be twice as frequent in flats as in houses, especially marked in women aged 20 - 29, over 40 and

the elderly. Hird suggests the isolation of old people in flats leads to disorientation, sometimes precipitating psychiatric illness. Fanning concludes "the pattern of social withdrawal and confinement to the dwelling of young mothers and children is one which invites chronic ill health and is against all the tenets of good hygiene". Blake (1978) cites the case of Hulme, Manchester whose occupants are seven times more likely than average to commit suicide, while half complain of suffering from "nervous troubles". On medical grounds, the evidence so far appears consistent, seeming to indicate the detrimental effect of a high flat existence to general well being.

In conclusion, for some groups, especially families with small children, all the evidence points out the unsuitability of high flat accommodation, while for others, especially single working people, adult households, the elderly and handicapped, high living is attractive, although each for different reasons. It remains for the future, given the low public sector construction rate and theoretical housing surplus, to rectify this mismatch between housing preference and stock by radical reform of allocation and transfer mechanisms to optimise the potential of the high rise legacy.

b Household Mix

Several studies have examined household mix on high-rise estates focussing specifically on the formation of social relationships, child density levels and the incidence of vandalism.

b (i) Social Relationships

A number of small studies have examined the effects of layout on social relations in high buildings (e.g. Pfeil, 1968: Sheppard, 1960: Cooney 1961: Reynolds & Nicholson 1972: Bryant & Knowles 1974). It

has often been suggested that physical surroundings determine friendship patterns, the general conclusion being that balcony access arrangements provide greater opportunities for contact with neighbours. Usually the greater number of families on one floor, the greater is the chance of friendships being initiated. However, while the physical distance between neighbours seems to affect the chances of a friendship beginning, the development of this depends largely on social and personal factors. Bryant and Knowles (1974) in their discussion of Hyde Park, Sheffield, a development aimed to stimulate social contact by incorporating design features geared specifically to this end, conclude, from the low levels of contact observed, that the scheme was unsuccessful in mitigating the natural tendency of most people to keep 'themselves to themselves' where physical proximity is not complemented by kinship ties and functional interdependence. The main physical inhibition on friendship formation in multi-storey blocks is that there are no neutral areas (semi public/private) where people can stand without violating each other's privacy. Also, the role of children, through play, in initiating contact between mothers has been stressed by Fanning (1967). If these are absent, it seems that privacy, which is generally valued, can become isolation and loneliness.

The social factors which bear on neighbour relations include age, occupation, stage in family cycle, background and experience, values, attitudes and aspirations as well as personality factors (Darke & Darke, 1970). They conclude that homogoneity in these factors although unable to identify which dimensions are most important, generally tends to favour more cohesive social relations. However, in contrast Jephcott (1971 a) asserts that when the age structure of

the population is markedly unbalanced i.e. with a homogeneous household type, the problem of loneliness is aggravated. Most studies stress the importance of the time factor in the development of social networks on estates, with high rates of mobility and turnover perceived as detrimental to relationship formation. Most commentators feel that new social networks will build up over time on estates, although they may be, in nature, more tenuous and fragile than those that grew up over a long period of years in the inner areas. Concerning background, Jephcott (1971 a) relates low levels of neighbourliness to the fear of not sustaining standards of social behavour akin to the perceived multi-storey life style as new codes of social behavour, attitudes and moral values were expected to accompany the movement from the tenement.

Social mix, within the local authority sector, may be an important consideration in social networks. Weinberger (1973), for example, finds that good tenants complain of the wrong sort moving in, fearing stigmatisation and the concentration of problems associated with the ghettoisation of "problem families". Social mix, used in its more traditional sense of class integration, may be becoming increasingly relevant to public sector high-rise accommodation with present policies of student housing and cooperative ventures. Sarkissian (1976) poses a few pertinent questions which should be considered, asking if people (as opposed to planners) view diversity in their area as a positive element in their standard of living. Do mixed populations engage in common cultural and social pursuits, and are they regarded as preferable to the traditional communal life of homogeneous areas?. At what scale is social mix desirable?

To conclude, while most studies have sought to link physical factors

with social behaviour, Baldwin (1974) asserts that the physical environment is relatively unimportant in influencing social behaviour. Wise (1975), contemplating the occurrence of successful high-rise and disastrous low-rise developments feels "the problem is nothing to do with architecture, but is to do with social mix, housing administration and community facilities in the area".

b (ii) Child Density and Vandalism

The media have often noted that high-rise estates suffer disproportionately from damage to the environment and their inhabitants are more vulnerable to crime attack. (3) The literature on vandalism almost always relates its incidence in some way to very high densities of children (e.g. Payne & Smith,1975; Pickett & Boulton, 1974; Weinberger, 1973) Pickett and Boulton feel that vandalism may be due simply to the "concentration of children at their most destructive age", while Wilson and Sturman (1976) found child density to be the single most important factor correlated with vandalism rates, although it is generally agreed that the incidence of the problem suggests more complex roots.

This correlation with child density would suggest that the provision of facilities for children may ease the situation (supported by Bengtsson, 1974; Architectural Research Unit, 1975). However, Baldwin (1974) found vandalism occurred despite the provision of play facilities. In fact, Wilson and Sturman (1976) feel that in an environment with a dearth of amenities, the vandalism problem may be exacerbated by the provision of facilities and the attraction they hold for children from a wide-ranging field.

It should not be imagined, however, that high rates of vandalism and

crime are caused by high-rise housing - its causes go much deeper. (4) However, planners must beware of reverting to the syndrome of applying physical solutions e.g. "hard architecture" as the key to social problems. It is beginning to be realised by commentators (Burbridge, 1973: N.A.C.R.O., 1974) that the right approach lies not in a direct frontal attack, nor an increase in measures of control, but in the tapping of community potential, although authorities concerned e.g. police, housing management seem loathe to experiment with this approach on the ground. Traditional "community consultation" approaches are not, however, adequate. What is needed is a genuine desire to enlist the interest, potential and commitment of the people in devising,designing and operating schemes to occupy their free time. Investing in people may achieve a measurable (in both expenditure terms and offense rates) amelioration of the situation. Wyndham Thomas asks,

"Where is the one architect or planner who admits his ignorance of the inner fabric of the lives of his prospective tenants, who respects their dignity and regards them as his equal and who then approaches his task with genuine humility?"

The efficiency of the 'community involvement' approach will be discussed more fully in developing a rationale for tenant control in housing.

From the literature reviewed, it is evident that further research into all aspects of living in high flats needs to be guided by a thorough knowledge of past work, towards the goal of formulating some integrating theory. Too many small-scale independent studies, including D.O.E. research, have concentrated on physical aspects alone

sometimes without even defining explicit hypotheses to test or cataloguing all the relevant variables adding diminishing amounts to the small fund of knowledge. What is needed for the future is to sensitize those who provide and manage the residential environment to the preferences and needs of those who live there. Only the social scientist, in collaboration with architects, planners, housing managers, community workers etc will be able to provide, from empirical studies of human needs and preferences, a more reliable basis for house design, allocation and management.

NOTES:

1. For a full discussion of the anti-dampness campaign in Laureston Gorbals, the extent of the problem (Glasgow City Architects maintain only 30% of the flats suffer) and the struggle of the tenants to achieve an official response and action, see Community Action No. 39: Clydeside Action No. 5.

2. Given a free choice of floor in a 24 storey block, over 30% would have chosen ground to 2nd; 15% 3rd - 4th and over 20% the 21st to 23rd floors.

3. For recent examples, see "Sunday Times" October 29, 1978 (Peter Norman on Brandon 111): "Sunday Mail" January 28, 1979 (Martello Court - "Terror Tower" -, Muirhouse, Edinburgh: B.B.C. 1 Nationwide feature 6 November 1978 (Hyson Green, Nottingham). Blake (1978) cites the case of Hulme, Manchester whose inhabitants are 31 times more likely to be victims of crime and 41 times more likely to be murdered than the average British citizen.

4. See Colin Ward (1973) for a resume of different perspectives on the vandalism problem.

CHAPTER 4: MEASURING THE "POPULARITY" OF MULTI-STOREY ESTATES - AN ALTERNATIVE APPROACH

Previous research concerning the "popularity" of multi-storey housing forms has provided few conclusive results to guide policy directives. The only significant finding of extensive attitude surveys has proved to be the apparent unsuitability of housing families with young children in high flats. Local housing authorities have, therefore, modified their allocation and transfer priorities (Appendix B), in the belief that therein lies at least part of the solution to the multi-storey "difficult-to-let" estates. Although this shift in allocation policy is desirable, there have been few attempts, at the policy or research levels, to face up to the complexity of the problem, limitations inherent in the type of research produced are seldom explicitly stated, and the need for an alternative approach is not reflected in action.

4.1. Limitations of Past Research

A brief consideration of the previous modes of analysis conveys an immediate impression of the limited scope of past approaches. Concerning research design, the dominance of attitude surveys in the literature has already been mentioned, although their notorious unreliability is well-documented. Dealing with consumer reactions to a housing situation is a complex issue, with questionnaire design a consideration deserving special attention. Household sampling techniques are, also, fraught with difficulties, in that the chances of sample bias, reflecting the views of specific population sub-groups are relatively high. In analysing housing preferences, initial considerations of the past housing experience of occupants, their housing aspirations and expectations are both

dynamic and difficult to quantify. McLennan (1977a) suggests that taste is a function of an individual's intrinsic characteristics and past experience, while past experience in consumption reflects both the interaction of past taste and past constraints. A useful distinction is drawn between "preferences", which relate to the concept of underlying tastes and exist independently of constraints, and choices which are the outcome of the interaction of tastes and constraints.

Furthermore, past research has been severely limited in scale, while independent studies guarantee the impossibility of synthesising both intra-and inter-urban comparisons. D.O.E. work (1970) has made some attempt to overcome this by standardising research across a number of different types of estate, although the difficulty of drawing conclusions for wider policy application were not resolved. An important consideration for wider housing policy, given the diversity of local housing situations, is whether comparability of research is either desirable or of practical utility in a local decision-making context.

4.2. Access, Allocation and Mobility in Local Authority Housing

Most of the multi-storey analyses have utilised consumer attitudes to housing situations as a vehicle for measuring preferences. Although presently forming the basis of policy decisions, this approach can at best, only be partial and at worst, could be totally inaccurate. While attitude surveys present one method of measuring tenants' perceptions of their housing situations, by their very nature, they are artificial, indirect expressions of residents' views.

In a market situation (i.e. private sector) housing preferences are

estimated from demand studies (Ref: McLennan 1977b), but as local authority housing does not operate in a market context, non-price signals i.e. vacancies, transfers and turnover are useful indicators of satisfaction with housing, although choices are constrained by the local authority housing mechanism. Given that hierarchies of estate and house type popularity exist in the public sector, it seems pointless to attempt to gauge tenant preferences by attitude surveys, when, in reality, the avenues open to them are restricted. Rather, some "objective" assessment of a household's requirements (in terms of apartment size), their priority rating with respect to others, some subjective grading of their acceptability as a "council tenant"[1], and the available housing stock at a particular point in time determine the alternatives open to the individual tenant, whether for initial allocation or transfer. The Cullingworth Report (1969) recognised that public sector dwellings are allocated to tenants in a manner that is "more determined by what the authority thinks the tenant needs and deserves in relation to the stock of dwellings available than by what the tenant states he desires".

Therefore, in measuring reactions to a housing situation, and given the fact that prices (i.e. rents) do not, at present, perform any allocative role, it seems imperative to adopt a more comprehensive approach to assessing the relative "popularity" of sub-groups (types of houses, estates or areas) in the local authority stock, by supplementing attitude surveys with more direct expressions of housing preferences. Housing management departments record the occasions when preferences are formally stated, while tenants can indicate preferences through a network of both formal and informal channels.

An initial prospective applicant for entry into the public sector will be vetoed on acceptability criteria (age, residence etc), ranked on a priority classification, assessed in terms of space required and thereafter placed on a waiting list to be matched to suitable accommodation falling vacant or newly constructed. At this stage, some broad indication of preferences can be gauged from the stated house type and area specified, the strength of the desire measured by the length of time an applicant is prepared to wait for his stated choice. Glasgow District Council/Strathclyde Region joint preference study are utilising this as one of six indicators[2] in their current study. However, its use in this way tends to give more weight to the preferences of those applicants who can afford to wait for their choice to be met, whereas in situations of great housing need, "serving time" on the waiting list is a luxury which cannot be enjoyed by the majority of applicants. Similar considerations must be taken into account in any utilisation of refusals of offer as an index of popularity. Once the hurdle of acceptance onto the waiting list has been overcome, rights of tenants to refuse offers are usually limited. Because of this, tenants may be discouraged from refusing an offer which does not exactly suit their needs or preferences, in the fear that any future offers will be even less acceptable. In reality, the mechanism does not allow a choice from a range of possible alternatives, due to the time-lag effect in processing one offer before any further offers may be proposed.

Once an acceptable offer has been made, and the tenant has entered into an official contract with the local housing authority, dissatisfaction with the house, scheme or estate may be expressed in a number of ways.

Informally, individual tenants may channel complaints regarding management, maintenance and repairs, neighbours etc. via tenant associations, community councils, or they may directly approach area housing officials. In situations of collective dissatisfaction, community action in the form of rent strikes, petitions, demonstrations etc. may instigate an official response to any crisis. More formally, extreme dissatisfaction may be expressed in terms of the decision to terminate the tenancy agreement and move out of the public sector completely, although obviously this depends very much on the availability of alternatives in the private sector, whether for rental or owner-occupation. Decline within the private-rented sector and fierce competition for the accommodation available exacerbates the role of financial considerations in any decision to withdraw. Rent levels still tend to be higher on aggregate, usually for sub-standard (on physical and space criteria) housing, while even the cheapest purchase prices still require substantial capital sums for deposits.

Therefore, on grounds of finance and administrative ease, it is simpler for discontent public sector tenants to either apply officially for transfer to more desirable areas or types of house, or to attempt to arrange a mutual exchange. Exchanges are dependent on the ability of the individual tenant (although ultimately requiring Housing Management permission) to find a household suitable for a mutual removal. While exchanges are difficult to arrange (thus accounting for a small proportion of total moves) due to the administrative difficulty of achieving a double coincidence of wants at a given point in time, tenants in dwellings of inferior quality, unpopular type or stigmatised areas suffer further disadvantages with this system. For example, the problems of

multi-storey tenants in securing an exchange to a different house type are exacerbated by adverse publicity, severely limiting the number of tenants who would willingly move into this form of dwelling.

As a guide to preference, transfer requests of tenants should, in theory, provide a significant index of "popularity". However, it is important to note that these may reflect changes in the family cycle e.g. additional children more often than any dissatisfaction with the house or area. Without any analysis of the reasons for requesting a move, it is difficult to separate these forces out. Requests for movement should be more indicative of the satisfaction spectrum than actual transfers recorded due to the constraints of low mobility inherent in the local authority stock. Transfers differ from exchanges in that they are administered by the local housing authority, usually on points according to a pre-defined scale of priorities, generally with medical, over- and under-occupation and redevelopment cases given priority. Glasgow's multi-storey estates, however, face the dilemma of reconciling conflicting priority levels between families with young children (Ref: Appendix B) and their stated commitment to rehouse the "difficult" Red Road blocks and Gorbals "dampness" cases. Ultimately, the identification of a priority hierarchy, in units of waiting list times or previous tenancy (whichever is longer), giving increasing credence to the analogy of the "prison sentence", knowledge of a tenant's relative priority standing and therefore his ability to be successful in achieving a transfer will obviously influence the placement of a request. Reconciliation of the volume of "priority cases" is, at present, a matter for individual case treatment, along broad

guidelines, although the current switch to a points system is hoped to increase public awareness and acceptance of the decision-making process. But, without any real rationalisation of priorities at policy level, a points system alone will not ameliorate the confused, competitive situation which exists at present.

Therefore, in a situation of housing allocation, it seems superficial to base policy decisions on attitude surveys on household preferences, supplemented by intuitive guesswork. Alternatively, a more realistic approach to the problem lies in an analysis of the management of a scarce, essential resource and the socio-spatial outcomes of such management activity in an urban area. However, the factors which may ultimately emerge as most critical in this type of approach e.g. relationships of tenants with housing management, may, in fact be those which are unquantifiable and therefore analytically intangible. But, to arrive at this conclusion, it seems imperative to exhaust the possibilities of the more tangible, quantifiable factors in any assessment of the relative popularity of the public sector stock.

4.3. Limitations of the "Housing Preference Study"

Housing Plan 2 outlines the stated aim of the "Housing Preference Study -" to show the relative popularity of each housing management scheme in the city (Appendix 7 p142).....It is important to define the popular and unpopular areas as they presently exist and to introduce policies aimed at increasing the attractiveness of the unpopular areas, whilst sustaining the popularity of others (par 2.5.5.1 p64).....Further study of preferences will be necessary to monitor the effects of policies and to give more insight into the particular requirements and attitudes underlying housing preferences". (par 2.5.5.7 p64)

As a descriptive framework of reference the housing preference study should provide some useful results, in that ultimately the housing management schemes will be ranked according to the indicators identified[2]. It will then be possible to identify those schemes which are becoming increasingly unpopular to direct resource investment to ameliorate the situation. Although several basic limitations of the data have been recognised and outlined (Ref: HP2, Appendix 7), a number of more important drawbacks are apparent in the methodology adopted. Firstly, housing management estates, for which data is available, range somewhat in scale and nature from schemes of 50 - 100 house units to redevelopment areas of 2 - 3,000 dwellings. On aggregate, therefore, the indicators for the very large schemes may conceal subtle local divergences in popularity rates which will not emerge in the analysis.

More basically, however, no amount of cross-matching of the indices will reveal the range of processes operating to create the spiral of decline in some of the public sector stock. To tap these, it seems necessary to evaluate the schemes against a wide range of critical factors[3] to isolate those most influential in establishing levels of transfer, turnover etc. for a particular estate. Without examining the processes operating, attempts to ameliorate the situation may prove abortive, in that policy decisions will still be based on intuitive guesswork rather than any comprehension of the causes of relative levels of popularity within the public sector stock.

4.4. Multi-Storey Popularity - A Preliminary Analysis

On the whole, multi-storey estates in Glasgow are not perceived as a problem for the housing management department. Contrary to popular

belief, difficulty of letting and, therefore, high levels of vacancy, turnover and transfer requests, is a comparatively rare occurence on multi-storey estates (with a few major exceptions) compared with some of the public sector stock in the city, notably the peripheral estates. Transfer requests from high flats were found to be significantly (at the 95% level) lower than their representation in the public sector stock (Ref: Table 4).

Table 4: Transfer Requests by House Type (1977)

	% of Transfer Requests	% of Housing Stock
Tenement	66.9	51.0
Multi-Storey Flat	9.2	16.6
Terrace, 4 in block, semi	23.8	29.3

Source: Strathclyde Region (1978) - results of a 10% sample.

This aggregate trend, however, conceals significant differences in popularity within the multi-storey stock. Given that these variances do exist, it may be possible to view the multi-storey population as a microcosm of the total public sector popularity spectrum. To test this initial hypothesis, data on turnover and vacancy rates[4] for the multi-storey sample[5] was compared with the total population of housing management estates within Glasgow.

Considering Turnover[6], not only was the average of the distribution in the 100% multi-storey sample found to be significantly (at the 95% level) lower than the average for schemes in the city as a whole, but in addition the spread of values was found to cover a significantly narrower range. Comparing average vacancy rates of the samples with the total population of schemes, the difference was found to be attributable to chance at the 95% level, but significant differences

were also recorded in the spread of the distributions. On the whole, therefore, the findings tend to suggest that the initial hypothesis, that rates of turnover and vacancy on multi-storey estates represent a microcosm of those within the city as a whole, be rejected. From the evidence, these indices of unpopularity are significantly lower and cover a narrower range of values than the total schemes within the city. Multi-storey estates are, therefore, more popular than average local authority stock within Glasgow.

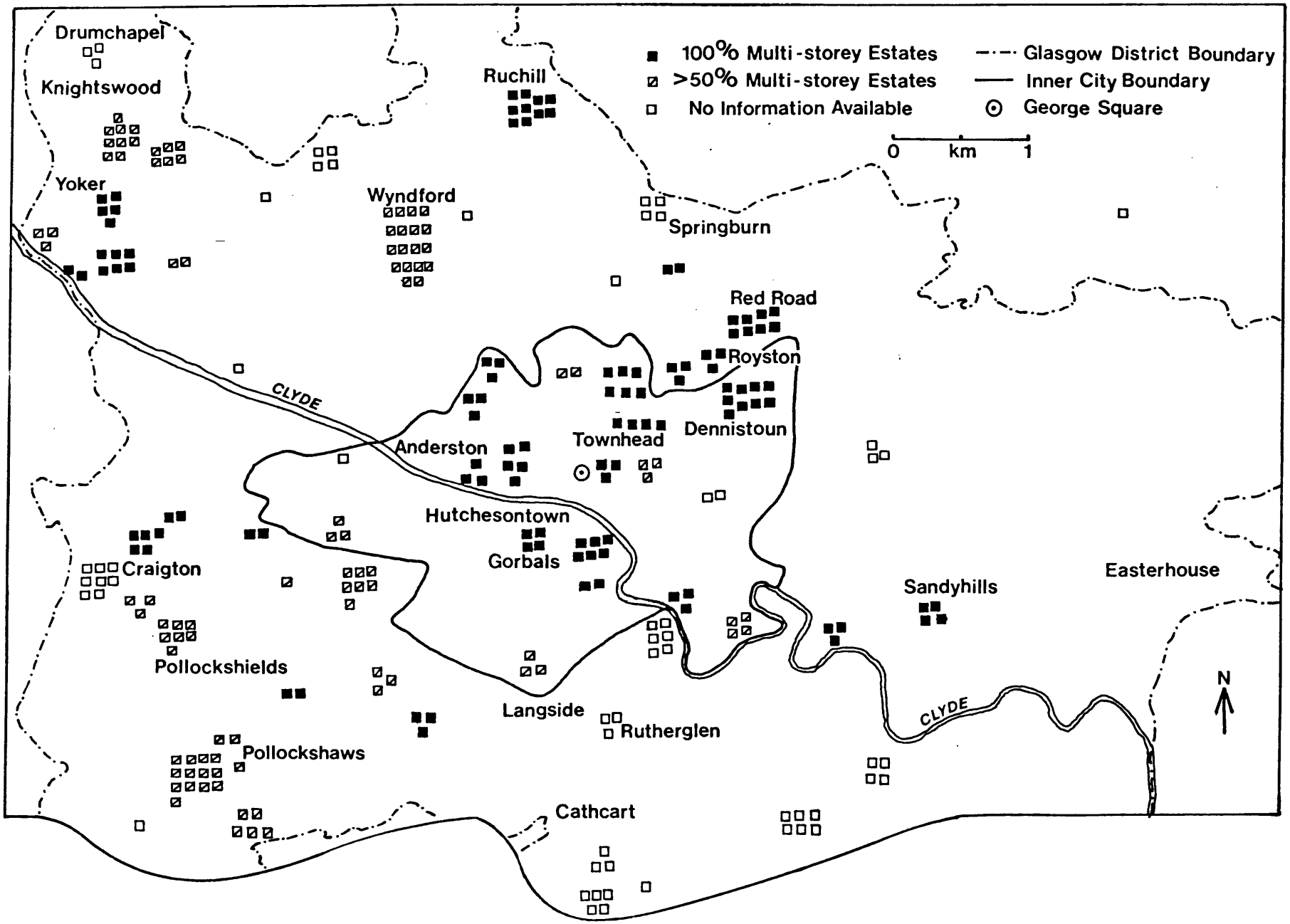
But, given that significant differences in popularity measurements occur within the multi-storey sample[7], it seems worthwhile to explore the nature of these divergences and to make some attempt at explaining the causes of their occurence. Fig 4 indicates the spatial distribution of the multi-storey blocks in Glasgow, illustrating their concentration within the Inner City[8]. Outwith the inner area, pockets of multi-storeys concentrate in the North/North East; extreme North West and South West of the city.

4.5. Characteristics of the Multi-Storey Sample

Broadly, the descriptive characteristics of the multi-storey sample can be sub-divided into environmental, physical and locational aspects, although due to the derivation of the data there tends to be a great deal of overlap between these divisions.

Strathclyde Regional Report (1976) identified 114 areas for priority treatment (A.P.T.) within the region on a range of environmental and social indicators, with a view to concentrating resources in the worst areas. By definition, these areas were chosen as representative of severe symptoms of decline e.g. high levels of vandalism and overcrowding, while unemployment and poverty were recognised as root

FIG.4: MULTI-STOREY BLOCKS IN GLASGOW (1979).



causes. Considering the multi-storey sample, 57% of the schemes were found to lie in APTs. Given that the derivation of APT's was partially related to environmental indices, a relationship would be expected between priority areas and the Amenity Group classification of the housing schemes, accepting that the amenity ranking is related, although in some subjective fashion, to the environmental quality of the area. For the multi-storey sample, this relationship, although weak (a correlation coefficient of 0.37), was found to hold, suggesting that blocks in the lower amenity groups are in areas for priority treatment. Significantly, also, a positive relationship ($r = 0.38$) was found between APT and Inner City locations, suggesting that multi-storey blocks in the inner area were more likely to be areas of priority. A relationship with the date of the development also seemed to hold, suggesting those multi-storey blocks built at an earlier date were priority areas for treatment.

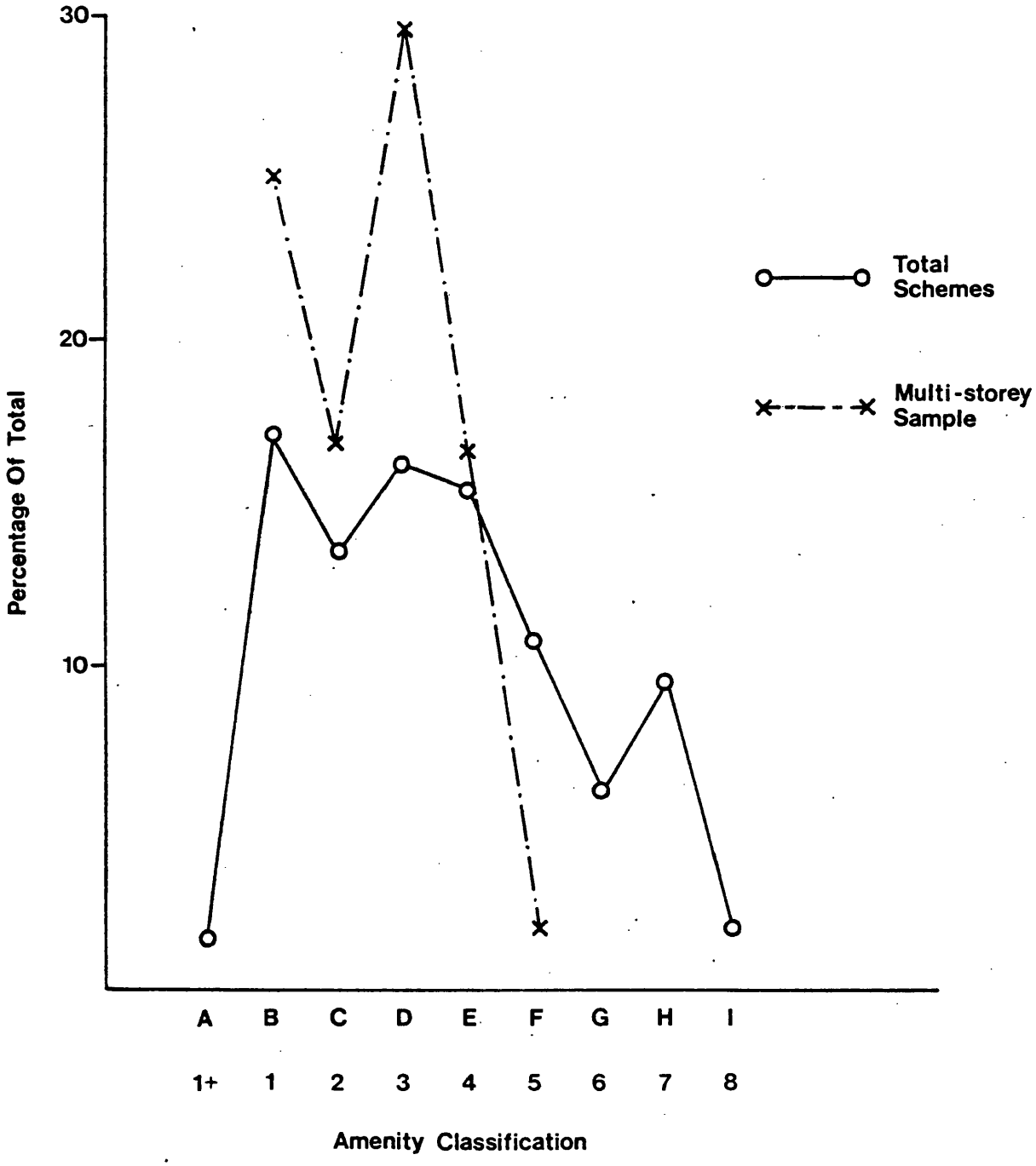
The Amenity Group classification, based historically on the date and nature of the scheme e.g. whether "ordinary", "rehousing" or "intermediate", plus some subjective assessment of environmental quality, fixes rental levels within the public sector. Initially a threefold classification for each of the "Ordinary", "Intermediate" and "Rehousing" classes was adopted, but in 1969 the Property Management Committee recommended that Corporation schemes should be re-categorised into standard Groups 1 - 8 for rental purposes. Although the derivation of the amenity group rating is not clear, it appears that any new build automatically adopts the highest amenity group rating and, therefore, highest rental levels, progressing down the scale with age and relative deterioration of the stock. Generally, rental levels in the public sector are comparatively uniform and do not,

therefore, reflect the desirability of different types of housing or schemes within the public sector. However, policies to widen the differentials between rents, with a view to increasing mobility, especially the turnover of the most desirable schemes, have been suggested.

Fig 5 compares the proportion of houses in different Amenity Group rankings of the multi-storey sample with the total population of estates. As would be expected, given the definition of Amenity Group, the multi-storey schemes tend to reflect the higher ratings, concentrated in classes 1 - 5 on the nine-point scale. Within this narrow range, the distribution tends to follow the city-wide pattern in that higher proportions are found in amenity groups 1 and 3, compared to 2 and 4, perhaps a reflection of the derivation of the classes.

Within the multi-storey sample, a number of factors would be expected to correlate with the amenity group ranking especially the housing act under which the scheme was built and the actual date of construction. The nature of the relationships found were those which would be expected viz. estates built under the later acts were ranked higher on amenity level, although the strength of the relationship was not significantly high (a correlation coefficient of - 0.41). This tends to suggest that the "subjective" assessment of environmental quality plays a significant role in amenity group derivation, at least for the multi-storey estates. Regarding location, a slight negative relationship was found between distance from the centre[9] and amenity group, indicating that those estates furthest from the centre were also those in the highest amenity groups. It appears

FIG.5 PROPORTION OF DWELLING STOCK BY AMENITY GROUP CLASSIFICATION.



therefore, that accessibility to services offered by the central area did not figure highly in the derivation of the amenity group ranking. More likely, the diseconomies in terms of environmental quality, open space standards and the social costs of high density (e.g. the level of service provision) seem to have had an influence, justifying the lower amenity group rating in central locations. A weak positive relationship (a correlation value of 0.22) was found to exist between amenity group and turnover, suggesting that rates of turnover were higher for the lower amenity groups and vice versa. For the multi-storey sample, the amenity group ranking was also found to be related to the proportion of 3 - apartment dwellings on an estate, with schemes containing higher proportions being classed in the lower amenity groups. In turn, this may be a function of age as the concentration of 3 - apartment "family" dwellings was a feature of the earliest multi-storey developments.

Concerning the physical nature of multi-storey estates, factors considered included the scale of the estate, in terms of the total number of dwellings, the average storey-height of the blocks and the apartment-size distribution of the blocks. Multi-storey estates were found to range significantly in scale from less than 50 houses to more than 2,500, with an average size of 552 houses. It is interesting to compare this with the maximum of 400 - 450 houses, recommended by S.H.A.C. (1944), when warning of the dangers of large scale. (Ref: Chapter 1).

As would be expected, the scale of the estate, in terms of the total number of dwellings, was found to be related to the average storey height, although the weakness of the relationship (a correlation coefficient of 0.37) tends to suggest that those estates with the

significantly higher than average blocks were not necessarily the largest estates, in terms of dwelling totals. While it seemed plausible to hypothesise that the earlier estates e.g. CDA redevelopment would also be those of largest scale, surprisingly the number of dwellings was not found to be significantly related to the date of construction.

While storey height has already been considered in a comparative study, comparing Glasgow to Dundee and Aberdeen (Ref: Chapter 2), a few further points have emerged. Comparing average storey height with date of development, as would be expected the more recent multi-storey estates have comprised designs incorporating lower blocks. Surprisingly, though, the strength of the relationship was very weak (a coefficient of - 0.16), perhaps a function of the time-lag between design and construction, with policy recommendations to decrease storey height not apparent. Also, while multi-storey developments were being constructed in Glasgow to 1976/7, the data was limited in that the later multi-storeys (post - 1973) were excluded. Perhaps the strength of the relationship would be increased when these were included. Comparing average storey height with distance, the expected relationship of higher blocks being found nearer to the centre of the city seems to hold, although again the correlation was very weak. This could be a function of the enigma identified by Smith (1974) (Ref: Chapter 2) that the CDA's contain a higher proportion of more than 20 storey high blocks, but a lower proportion of the 30 storey high blocks than the rest of Glasgow.

In an analysis of the apartment-size distribution of multi-storey dwellings, it was hypothesised that those estates with the higher

proportions of three and four apartment sizes i.e. more families with children should score highly on indicators of unpopularity. Surprisingly, however, regarding turnover rates, the only significant relationship to emerge was a correlation (0.33) between the proportion of one-apartment dwellings and turnover. Balance of apartment-size distribution[10] was found to be negatively related to amenity group (-0.24) suggesting that the schemes with the highest rent levels were those where apartment-sizes were more concentrated than average i.e. more homogeneous household mixes. For example, rents for Sandyhills estate are among the highest for multi-storey blocks within the city, while the apartment-size distribution displays a predominance of two-apartment dwellings.

Given the spatial distributionof multi-storey blocks within the city, several locational indicators were devised to test relationships between location and the characteristics of multi-storey estates.

Using the SDD definition of inner city[8] (Ref: Fig.4 for the boundary delimitation), of the multi-storey sample, 55.3% were found to be located outwith the boundary, while the remaining 44.7% occupied sites within the inner area. Although it was initially hypothesised that indices of popularity would relate in some way to locational factors, (e.g. that inner city sites may be more popular due to ease of access to employment, services etc. or unpopular due to the residential diseconomies of a downtown site), no significant relationships emerged between inner city location and turnover or vacancy rates. This may, however, be a function of the boundary definition suggesting it may be worthwhile to explore alternative, preferably tenants' perception surfaces of their relative location in urban space, to verify or refute this initial finding.

As it seemed feasible to expect that areas with an "overconcentration" of multi-storey estates, for example in the North East of the city, may display higher levels of instability, the city was sub-divided into sectors[11]. Results of the correlations between the sectoral subdivisions and the indices of popularity, however, proved to be inconclusive, suggesting either that the tentative hypothesis was incorrect, or that the areal subdivision required some refinement for this mechanism to emerge. Also, the distance[12] of multi-storey estates from the city centre may be expected to be significantly related to levels of popularity. From the correlations of distance with turnover and vacancy, weak negative relationships were found, indicating that those estates nearer the city centre displayed higher levels of turnover and vacancy, although initially the converse of the relationship was hypothesised. Refinements of this test should include the consideration of the time and cost distance measurements (by public and private transport, walking distance) which may significantly alter the results.

4.6. Towards a Further Analysis of Popularity

Using the variables discussed above, a preliminary attempt was made, using regression analysis, to explain the variance in turnover and vacancy rates. By definition, high levels of turnover should coincide with high vacancy rates. However, these may merely reflect frictional vacancies due to lags in movement in and out of the scheme, and will not necessarily suggest a high permanent vacancy rate as an inevitable consequence.

Multiple step regression analysis using ten variables[13] produced a 25.12% explanation of the variance in turnover rates. Although a large

number of variables were included, the degree of explanation achieved was shown to be attributable primarily to the influence of distance (an F value for the inner city location variable of 5.584 was found to be significant at the 5% level, while the log-distance variable also produced a relatively high value), and laterally to the amenity group and area for priority treatment classification. Overall, the F value of 1.21 was not found to be significant at the 5% level with (1,36) degrees of freedom. It appears, therefore, that the degree of explanation of the variance in turnover rates has been explained in terms of symptoms e.g. APT rather than causes. Attempts to tap any causal relationships, for example in terms of the effect of child density and the degree of population homogeneity have so far proved unsuccessful, although definitional re-specification may improve the results.

Attempts to explain the deviation in vacancy rates proved even less successful with a six variable[15] multiple regression achieving an explanation level of only 1.5%. This may be partly due to the method of derivation of the vacancy rate used and to the need for further refinement of the variables included. Similar tests using transfer request levels may clarify the significant variables, while further exploration of the precise nature of the relationships between transfer requests, turnover and vacancy rates may help to improve the degree of explanation.

In conclusion, this preliminary analysis has revealed the over-simplistic specification of the problem so far and the need for further refinement of the model to tap the processes creating variances in indicators of popularity between multi-storey estates. Further relevant considerations

should include locational specifications of accessibility e.g. employment, public transport, service provision, community facilities etc and perhaps some analysis of tenant origins, housing experience and their expectations regarding housing requirements. It may prove fruitful to devise a "package" of variables specifically to attempt to isolate the operation of one mechanism. For example, in exploring the influence of the allocation process on relative popularity levels, a preliminary list of factors should include the proportions of transfer and homeless allocations, child-density index and tenant origin measurements.

The implications of this type of approach of measuring popularity for policy decisions could be profound. Instead of panic reactions against high-rise developments influencing policy decisions, as at present (Glasgow being no exception), this approach would ultimately hope to pinpoint the causes of decline and unpopularity of some public sector estates. Policy recommendations could, therefore, be based on a basic comprehension of the processes perpetuating this decline. With this enlightened awareness, any ameliorative measures proposed requiring additional resource inputs should have greater impact, achieving the desired results. Politically, this approach should prove acceptable in that it should achieve greater value for money on resource expenditure, although it may, in the process, require some radical rationalisation of the allocation, transfer and management mechanism. But, rationalisation within housing management is currently underway, the vital difference lying in the ability to make decisions based on an informed analysis, rather than intuition alone.

NOTES:

1. Ref: Damer. S (1974) for an explanation of this process in Glasgow.

2. Appendix 7, Housing Plan 2 (pp 142 - 145) describes the "Indicators of Preference" study. The six indicators defined are a) Vacancy Rates b) Turnover c) Transfer Requests d) Waiting Lists e) Refusal of Offers f) Reasons for Move.

Appendix 7 para 3 "None of these indicators represents a direct measure of popularity, but schemes which are shown to be unpopular on the basis of several indicators may be regarded as such with some confidence".

3. A preliminary list of critical factors may include (1) the physical structure of schemes e.g. house types: presence of community facilities (2) indicators of environmental quality - degree of vandalism, physical dereliction of estate and area (3) household mix of the population - child density: proportion of dependent population i.e. handicapped, elderly (4) locational criteria - access to central area, services, retail, employment and public transport provision, recreation. This is not exhaustive, and it is acknowledged that crucial variables may vary significantly both between schemes and between areas within schemes.

4. Annual turnover rate (as percentage) was calculated proportional to the total number of houses in a scheme. Vacancy rate was expressed as 1+ actual vacancies (as a monthly rate).

5. The sample of multi-storey estates was derived from a comparison of housing management specification and their estate list. Those defined as 100% multi-storey estates signify all multi-storey blocks within the scheme (Ref: Fig. 4 for location), whereas more than 50% multi-storey estates represent those defined as predominantly multi-storey, within a mixed high/low-rise scheme. No information was available for some multi-storeys for a number of reasons - a) because they were predominantly low-rise schemes with a few high blocks b) they were smaller than 50 houses e.g. 1 block c) they were deck-access which were classified separately d) they were in Cambuslang or other unspecified reasons.

6. Population

			100% sample			Total sample (100% + more than 50% combined)		
VACANCY μ	σ	n	$\bar{x}_1$	s_1	n	$\bar{x}_2$	s_2	n
0.36	0.674	338	0.378	0.856	30	0.367	0.715	47
TURNOVER								
5.785	4.964	338	3.285	2.345	30	3.96	3.088	47

a) Considering Turnover, the difference between the means of Sample 1 and the total population was found to be significantly different at the 95% confidence level, while the divergence between means of sample 2 and the population could be attributed to chance. Using Snedecor's variance ratio test, the divergence between the variances, in both cases, was found to be significant at the 5% level.

b) On Vacancy Rates, the difference between the means in both cases tended to suggest that the divergence was significantly small to be due to chance, while the difference between the variances was found to be significant at the 5% level.

7. Hereafter, the multi-storey sample refers to sample 2 above.

8. The boundary of the Inner City was defined according to a recommendation made by S.D.D. and used previously in the Glasgow Housing Market Study. (see D. MacLennan).

9. The centre of the city was taken as George Square.

10. Balance was defined as a proportional representation of apartment sizes in line with the total for the multi-storey stock as a whole i.e. %1 - 3.6% : %2 - 35.9% : %3 - 56.0% : %4 - 4.5% (Ref: Table 2c).

11. The sectoral subdivision was based on a N/S axis through the city centre, and using the River Clyde as the E/W boundary definition. Using this division, 26% estates were in NW; 36% - NE; 12% - SE; 25% - SW.

12. Distance calculated referred to straight-line distance from the city centre.

13. Variables included were a) area for priority treatment b) amenity group c) number of dwellings on estate d) vacancy rate e) average storey heights f) balance (Ref: Note 10) g) child density index (using the proportion of 3 and 4 apartment dwellings as a surrogate) h) complete i.e. 100% multi-storey estate i) inner city location j) logarithm of distance from the centre.

14.

	P	A	N	V	S
	-1.37 (1.113)	0.55 (2.401)	-0.0006 (0.464)	-0.163 (0.062)	-0.064 (0.636)
DEPENDENT	B	C	Co	I	Ld
VARIABLE	-0.0001 (0.145)	-0.021 (0.493)	-0.86 (0.700)	3.932 (5.584)	1.228 (1.139)
TURNOVER		K	R^2	F	
		1.74	0.25	1.21	

Ordinary least squares regression was utilised, with unstandardised B values for the equation indicated in the above table. F values are given in brackets below, where independent variables were as follows:- P = Area for Priority Treatment: A = Amenity Group: N = Total number of dwellings: V = Vacancy Rate: S = Average storey height: B = Balance: C = Child-density: Co = Complete Multi-storey sample: I = Inner city location: Ld = Log of distance from city centre: K = Constant.

15. Variables included were a) turnover rate b) APT c) average storey height d) child density e) complete estates f) logarithm of distance from the centre.

CHAPTER 5 Policies for High-Rise - A Critical Evaluation

Currently, a wide range of alternative strategies are being processed by various local housing authorities to tackle the problems of multi-storey estates, with the growing awareness, in housing, that some of the most critical problems relate to the nature of relatively new housing stock. Given the infancy of tower blocks (most barely 10 - 15 years old), and their conception as a panacea for many housing ills, the disregard of the future of high-rise is understandable. But, as difficulty-of-letting (according to Wilson and Burbridge (1978), two-thirds of the difficult-to-let post-war housing is in flats and maisonettes), extreme physical decay and vandalism, tenant protest and community action cause havoc in the housing management system, attention is increasingly focussed on policies devised to ameliorate the situation.

It is interesting to speculate as to the reasons for the emergence of this issue now. Perhaps, the attention recently devoted in the press and media has played a significant role, by its concern for the scale and severity of the problem, embarassing local authorities into some positive action. Alternatively, the present concern could be viewed, by sceptics, as a pacification measure, in that by responding to the crisis, large scale tenant discontent and community action against housing management could be avoided or delayed. Local housing authorities can then claim that the problem is receiving attention, whether or not the desired results, from the tenants' point of view will be achieved or even considered in the process. Foreign example, especially in the U.S.A. in problem definition and policy formulation may also be a significant contributor, especially the concern with the escalation of urban

crime rates on high-density public authority estates.

Perhaps, the emerging public sector housing surplus in the major metropolitan authorities (an envisaged 29,800 in Glasgow alone by 1982 - Housing Plan 1) has provoked a concern for rationalisation of the existing stock as house-building programmes are restricted by resources. Financial stringency must also be an important consideration, with gradual expenditure on the more recent schemes economically more attractive in decreasing the need for any major expenditure in the longer term. This may be a function of the recent decentralisation of control over housing finance with the current Housing Investment Programmes (England and Wales) and Housing Plans (Scotland) permitting local authorities, in theory anyway, more leeway in resource expenditure decisions. With this move to gear local housing policies to meet local needs more directly, policy responses on high-rise have been diverse, ranging from the radical sweep e.g. sale, demolition and tenant control to the more conservative approaches e.g. allocation restriction, physical improvement and traditional housing management responses.

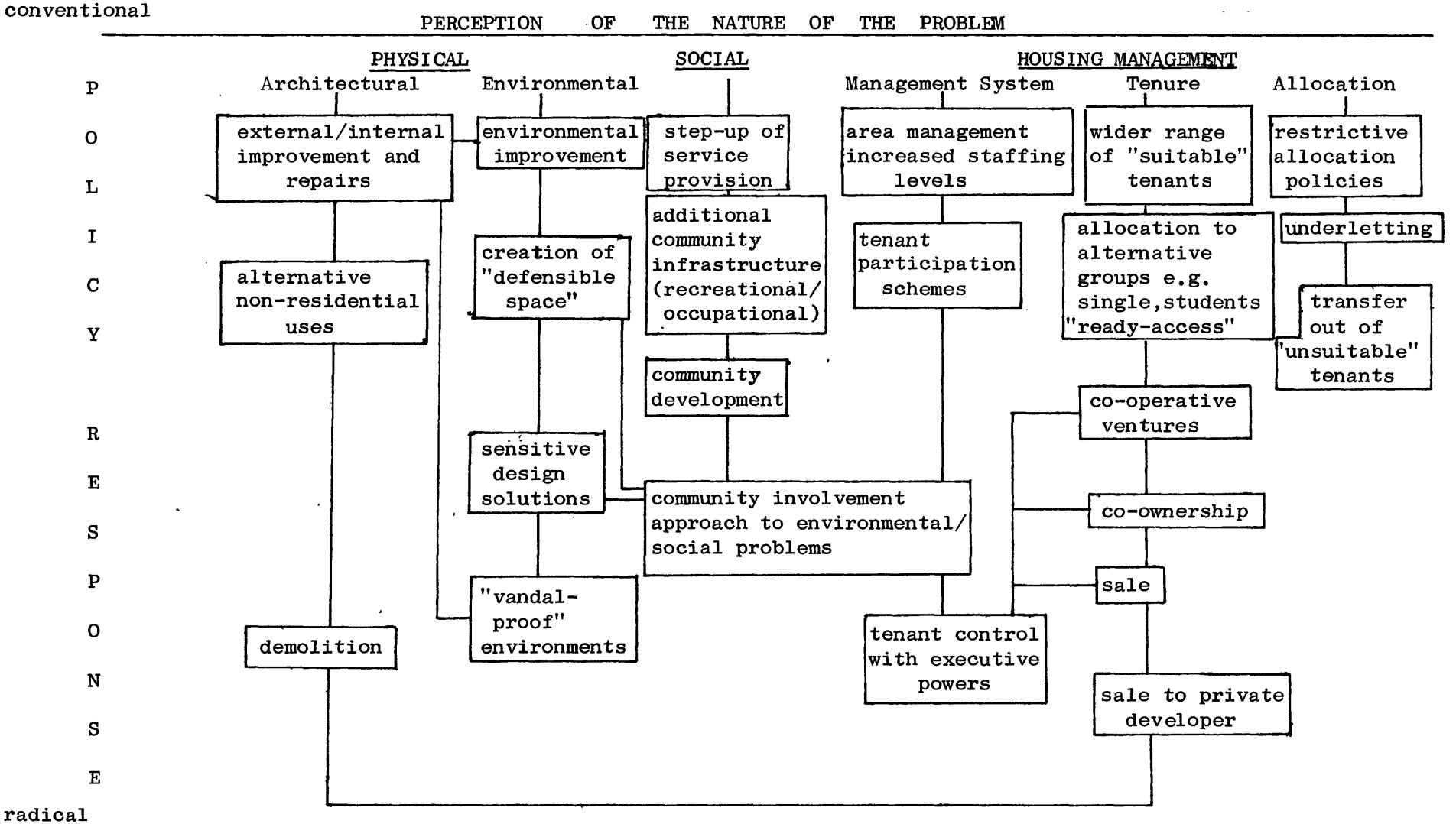
With a lack of attention to leadership from central government, the direction taken by local policy seems to be dependent on a wide range of factors. Ultimately, the political structure will constrain the potential range of acceptable alternative strategies, for example in the recent hot debate over the selling of council houses. At a political level, the issue of major party alignment towards a particular policy is further complicated by internal subdivision, the varied alliances and local representation of minority groups and the diversity of local housing situations.

However, within the constraints of economic and political feasibility, policy responses depend on the local authority's perception of the nature of the "problem" (i.e. root causes), its severity and their ability to respond to the problem so conceived.

Therefore, depending on whether the "problem" is perceived as physical i.e. the architect's responsibility in designing the dwelling, environmental i.e. the housing is unattractive because of the poor physical environment, social i.e. due to the lack of community provision or a housing management failure i.e. due to the allocation mechanism or management system itself, policy responses have so far been tailored to suit any or a combination of these notions. Fig. 6 presents one of many possible conceptions of the problem.

Many policy responses have been short-run reactions to perceived crisis situations because the relative popularity of sectors within the public housing stock (either areas or house types) has so far lacked any comprehensive analysis to identify the real causes underlying its existence. (Ref: Chapter 4). Given that any movement in this direction is a remote possibility in the immediate future, and that the implementation of these proposed "solutions" is currently underway, it remains to evaluate these alternative strategies in terms of their potential impact, over the short and long term, on the current public sector housing crisis. It appears that alternative strategies for high-rise can be classified either according to the problem definition or the nature of the policy response. This may in turn be related to the perception of the severity of the local situation and the ability of housing management to cope via traditional methods. Panic reactions adopting radical approaches e.g. demolition, sale can

Fig.6 HIGH RISE - POLICY RESPONSES BY PROBLEM DEFINITION



be recognised as an admission of the failure of the local housing authority to cope with the crisis, accepting that any traditional solution will have insufficient force to have an effect. Ameliorative measures on the other hand, assume that the "problem" has been adequately recognised, defined and that it can be solved or alleviated. It seems imperative, therefore, to examine some of the issues raised by each of these proposals.

5.1. Physical Solutions

Since their inception, public sector high-rise have been criticised for their inferior architecture. Newman (1973), for example, feels that society contributes to the victimisation of tenants by "stigmatising them with ugliness - saying with every status symbol available in the architectural language of our culture that living here is falling short of the human state". Therefore, the physical improvement of dwellings, blocks and estates reflects a concern that many of the "problems" experienced stem from the nature of the architecture or environment.

Whether or not their present condition reflects under-investment in the past is often a sore point with local authority officials. Evidence of financial stringency in initial design and construction has already been illuminated (Ref: Chapter 1), but this trend appears to have been continued throughout the years with cutbacks especially on repairs and maintenance and social infrastructure provision. Often, however, it has been suggested that this is not merely a function of cuts at central government level, but of underspending on the part of local authorities. For example, Liverpool City Council Housing Committee were estimated to have underspent by a

sum of £3.5 million in 1978 (Planning Bulletin, 19 January 1979). By the nature of the calculation of the public expenditure budget, with marginal increments based on the previous year's spending pattern, underspending evidently perpetuates the cycle of decreasing target levels being set.

Physical improvements proposed for high-rise blocks in Glasgow range from the installation of phone-entry systems and emergency generators[1], to the provision of additional lifts, access stairs and recladding of the block exteriors[2]. It will be interesting to see how far such physical improvements can go to turn the tide especially among the most unpopular estates, notwithstanding their high costs. Physical improvement programmes have been claimed as cosmetic image-building although they may have a beneficial effect in raising tenant morale. But, if reputation and stigma are the major causes of unpopularity, these will not easily be eradicated by physical solutions. If building type is at the crux of the problem, physical improvement, by nature, will have only limited effect. By design, flats and maisonettes cannot be radically altered. Therefore, physical improvements alone may do little to alter the pattern of consumer preferences in the public sector, contrary to the stated aims of most local authorities[3]. But in their favour, physical improvements are desirable to ensure decent minimum standards in the public sector, and they do increase the supply of acceptable housing rather than seeking to redistribute a continually diminishing scarce resource.

Environmental improvement programmes traditionally have taken the form of landscaping schemes, play spaces etc. However, with the widespread

diffusion and acceptance of Newman's "defensible space" concept, increasing attempts to 'privatise' previously communal open spaces have been implemented. Although it is difficult to gauge the success of these schemes in stimulating tenant responsibility for the immediate environment, there would appear to be severe limitations in an approach which persists in planning FOR, rather than WITH the people i.e. the continual imposition of standard solutions. While sensitive design solutions are infinitely preferable to "hard architecture" and increased policing measures to combat vandalism, there is still a paternalistic persistence that the planner obviously knows best. Nicholson (quoted in Ward (1973) feels "we are deprived of a varied, manipulable environment because of cultural elitism - we are compelled to live in environments created by the "gifted few". The planning, designing and building of any part of the environment is so difficult that only the gifted few, with degrees in planning, engineering etc. can properly solve environmental problems".

The "hard architecture" approach to environmental preservation can be criticised on similar grounds. In this, recent technological advances e.g. vandal-proof paints and finishes have been utilised, usually in the interests of economy, to design environments to be strong and resistant to human imprint. In high-rise particularly, "hard architecture" merely reinforces the institutionalisation of this mass housing form and the remoteness of the nature of the design and scale from the human level.

More generally, this type of approach tends to reinforce the we/they dichotomy between tenants and authority, stressing the traditional

notion of deserts - if you provide good architecture, they won't appreciate it anyway. The status quo of class relationships in society is not challenged, reasserting the second-class citizen status of the council tenant, because he is not receiving preferential treatment, in terms of a pleasant residential environment, at the expense of the owner-occupier. However, vandal proof environments are no guarantee that damage will be reduced as nothing is indestructible, if the will is there to destroy it. "Hard architecture", therefore, offers only a short term solution, if any at all to the problem of a poor environment. Indeed, Sommer (1974) feels it may exacerbate the problem by increasing alienation between the individual and authority.

5.2. Removal from the Local Authority Housing Stock

A number of solutions have been proposed which constitute a withdrawal of the problem high-rise from the public sector stock e.g. demolition, sale, non-residential uses. As the implications are similar, they will be considered together, however the discussion of sale in this section will be limited to the effects of sale of completed blocks, estates to private developers. Policy implications of sale to sitting tenants, cooperatives etc demand different types of consideration.

Surprisingly, alternative non-residential uses have not so far been seriously considered for high-rise problem estates, except for the conversion of flats to communal meeting halls/play rooms etc. Although, by design, inherently unsuited for certain types of industrial usage, minimal conversion would be required to suit office development, although obviously this would depend on location and demand.

The only recorded sale of high-rise blocks to a private developer so far has been that of the"Piggeries", Liverpool when in 1977 the City Council decided that the blocks could no longer make any positive contribution to the city's housing needs. The Liberal Council decided to rehouse the remaining tenants and auction the three fifteen-storey blocks by tender along with 2,000 other council homes which were described as "beyond repair". A first day bid of £4.50 was obtained, although the housing chairman announced they would be sold for as little as £1. Ironically, the developer who purchased intends to rehabilitate the maisonettes for sale. While it appears uneconomical to sell off the blocks at ridiculously low prices to a private developer who may ultimately accrue substantial profit from the deal, this must be evaluated against the present immense economic and social liability of these estates. In that they involve the admission of housing management failure and the required decant of tenants, policies of sale and demolition share certain similar implications.

Influenced by the Pruitt Igoe, St. Louis, U.S.A. destruction, many local authorities in Britain are now seriously considering the prospect of demolition of their worst high-rise estates. In Glasgow, for example, the demolition of Red Road has been suggested. As an example of the stereotyped "panic reaction" against high-rise, Baillie Derek Mason states, "If nobody wanted them for any other purpose, then they could well prove to be the <u>first</u> to come down. It is generally accepted that multi-storey living is <u>not desirable</u> in this day and age, and many other cities have already started to demolish such blocks" (The Scotsman 28/2/78) But, given the outcome of the analysis of multi-storey popularity (Chapter 4) and

the favourable position of high-rise in relation to the rest of the stock, demolition of some blocks, although proposed selective, appears somewhat irrational.

Economically, the question of demolition raises a number of pertinent issues. Due to the lack of expertise and immense practical problems envisaged, the cost of the destruction process itself is reckoned to be phenomenal. For example, the demolition of blocks in Red Road was estimated to cost more than the initial construction (£1.7 million each) (Glasgow Herald 28/2/78), while a more conservative figure for the "Piggeries", Liverpool reckoned on £1 million each (Community Action No. 38 1978). In addition, local ratepayers would still be saddled with loan debt repayments on construction for anything up to 50 years. Rationalised by the fact that these would have to be repaid anyway, economically the benefit derives from the removal of the strain on the rent-pooling system caused by low rental income, due to high turnover and vacancy rates, exacerbated by high maintenance and management costs. In theory, the public sector housing surplus should sufficiently accommodate those decanted, by disposal through sale or demolition, although, in practice, long waiting lists coexist with vast quantities of undesirable stock. For example, the envisaged public sector surplus in Glasgow of 29,000 plus coexists with a waiting list of 50,000 (Roof, March 1979). And in 1978, at the time of the "Piggeries" sale, Liverpool City Council had a waiting list of 9,000, while new-build planned to 1981 would only produce a net increase of 2,794 dwellings (Community Action no. 38), therefore, the removal of these flats from the stock merely exacerbates the real housing shortage situation.

Socially, from the tenants' point of view, although necessitating the costs and inconvenience of large-scale upheaval, the benefits derive from what can only be a positive amelioration of their housing situation. Although a drain on funds from housing management resources, the inferior accommodation offered by vandalised, decaying property does not represent good value for money for the tenant. Mandatory rehousing as priority cases, therefore,usually to the more desirable estates not only represents a physical improvement in the housing standards provided, but also a removal of the stigma often attached to an address on a notorious estate.

It seems ironical however, in this era of "community" promotion that extreme measures of demolition and sale and the concomitant fragmentation of any social networks, however fragile, which may have developed on these estates parallels the criticisms against the large-scale slum clearance and redevelopment which instigated the promotion of high-rise solutions in the first place. For similar reasons, demolition and sale are politically attractive, though radical, in the immediacy of the attack on the problem and the claim to the electorate that a positive approach has been adopted. In reality, however, they are both an admission of the failure of housing management to cope, although positive benefits may derive from the deburdening effect on the public sector as a whole, allowing the channelling of resources to more profitable ends.

Therefore, if the problem is conceived as estate-specific, demolition and sale are attractive options, offering apparently immediate solutions. However, they are severely limited in their contribution to the solution of the wider public housing crisis. Dispersal and rehousing of tenants can only achieve a limited temporary effect, in

that the same social problems of vandalism, crime etc. will surely recur elsewhere. Furthermore, no real progress is made in ameliorating the real shortage of desirable accommodation in the public sector.

5.3. Social Solutions

If the problems of high-rise estates are perceived as social, either due to inadequate welfare provision or community facilities, a number of alternative strategies are feasible. A step-up of traditional social service provision e.g. nursery facilities, health etc., particularly an increase in staffing levels per head of population has emerged as a standard response. Alternatively, attention has been persistently drawn in the literature to the underprovision of a range of facilities of both a recreational and occupational nature. In response, a variety of purpose-built premises have usually been proposed or, where these are too expensive or difficult to construct due to a lack of suitable vacant space, their accommodation in vacant dwellings has been suggested. Although, especially in high-rise blocks, particular problems of noise for immediate neighbours have been stressed, an alternative proposal has been the community utilisation of underground garage facilities. In Royston, Glasgow, due to a councillor initiative designs for community workshops in parking areas are presently being considered, while a similar innovation, along with a sports centre, is being implemented in the underutilised underground garage at Hyson Green, Nottingham (B.B.C.1 6/11/78).

Although commendable in their enhanced concern for community provision, most of the experiments proposed so far have failed to grasp that if

real amenity provision lies at the heart of the problem, the additional investment of resources in property will be wasted without a genuine commitment at the outset to involve the community, at a very basic level, in the design, selection, operation and management of facilities which THEY desire. Evidence so far from community involvement schemes[5], as a solution to associated environmental and social problems e.g. vandalism, unemployment etc., tends to suggest that success, however it is measured, is a function of the commitment on behalf of the authorities concerned to allow the public to participate meaningfully. However, for many local authorities, this demands a level of investment and confidence in the residents which they are not yet prepared to commit, to link a genuine bureaucratic concern with the aspirations of the local people. At a wider level, this links into the move to increase tenant control in local authority housing in general.

5.4. Housing Management Solutions

If the problem is perceived as partially attributable to the housing management mechanism, either in initial allocation to "unsuitable" tenants, tenure or the administration of the system itself, a range of alternative, though not mutually exclusive, strategies could be considered.

a Changes to Allocation Criteria

The current move to restrict allocation to high-rise to "suitable" tenants i.e. not families with young children has already been considered in depth (Ref: Chapters 3, 4, Appendix B). "Suitable" tenants for multi-storey dwellings are generally defined as including childless couples, single people and the elderly and

handicapped in certain circumstances. Taken to its logical conclusion, physical modifications to traditional family blocks should accompany these changes in allocation, especially where the household structure proposed is expected to be relatively homogeneous in nature, although as yet few local authorities have pursued this course of action to such an extent.

In relation to the provision for the elderly, for example, Southampton has a plan to turn one outlying block into a self-contained complex, comprising sheltered housing with a range of amenities - alarm bells and wardens, a roof-top restaurant, clinic, hairdresser, shops on site (Roof November 1977). Without this additional concern for amenity provision to suit special needs, the concentration of the elderly and handicapped into tower blocks will have severe implications for the social services, causing strain on the system of provision. In Glasgow, the potential conversion of tower blocks to meet the needs of these special groups has not so far been explored, although H.P.2 identifies a need for an additional 5,000 + places for the elderly, and a similar figure for the disabled. Given the experience of other local authorities e.g. Aberdeen, Southampton perhaps this is an avenue it would be fruitful to explore.

In relation to size-allocation rules, given the estimated shortfall of 49,000 two-apartment dwellings by 1983 (Housing Plan 2 p. 37), a policy of underletting is being considered in Glasgow. With the concentration of family-sized dwellings in high-rise, (Ref:Chapter 2) such a policy would not only make better use of the difficult-to-let stock, but also reduce child-density levels on these estates. It

appears an attractive proposition, given the ease of redefining traditional room requirements as opposed to changing the overall mix of dwelling sizes in the public sector by new-build. While the latter is an exceedingly slow process, it would also mean that new construction would be restricted to extreme dwelling sizes for many years to come. This policy is also linked to the extension of the net of council housing to a wider range of council tenants, enabling single and smaller households to enjoy a fair share of public sector accommodation.

An alternative method, as yet untested in Glasgow, is the operation of a "ready-access" scheme initiated by the G.L.C. in 1975/6 and later experimented more locally in Fintry, Dundee. Viewing the problem of "difficult-to-let" estates as a breakdown in the allocation process, rather than due to any inherent fault in the stock, the apparent solution appeared to be to offer the dwellings to families without children e.g. single, young couples with limited residential qualifications and immediate entry. In this way, the problem of difficult-to-let property becomes the solution to restoring flexibility and a wider range of household types into the public sector. Clearly the scope for this approach varies on the demand side from area to area, but the attraction of new types of council tenant, who have different preferences and, for example, are likely to find flats more acceptable, provides a useful, though modest approach to the problems of unpopular high-rise estates.

b. Widening the Choice of Tenure

Linked to these movements to widen the range of council tenants are parallel propositions to extend the spectrum of tenure choice within

the public sector. Therefore, in the last year or two there has been growing interest in attempts to let the least popular part of the stock outside conventional allocation and tenure systems. In Glasgow, for example, the latest proposal for two blocks at Red Road is a joint tenant/student cooperative. Although part of a wider initiative to increase the range of alternative tenure forms available in the city[6], the implications of such a policy are immense. Greater social mixing which it inevitably implies may diminish the attractiveness of the schemes for the majority of mainstream council tenants. Although existing tenants are presently being decanted with a view to alterations prior to reallocation, any preferential treatment for the student body will result in an unstable foundation on which to mount a cooperative venture. Possibly, once these difficulties are foreseen, selective allocation policies will be implemented e.g. as at Summerston, Glasgow to minimise difficulties. This elitist trend of careful selection of tenant cooperators inevitably further concentrates those deemed "unsuitable" applicants into ghettoes of poorer public sector properties. Criteria for unsuitability has so far been based on an assessment of social problems with direction set by the Campell Report (1975) - unsuitable applicants are "tenants with severe social problems who are not in a position to take on onerous additional responsibilities". But community involvement and direct responsibility of this nature may prove beneficial to easing the problems experienced by "unsuitable tenants" which so often are exacerbated by dissatisfaction with their home environments.

This trend appears to be a further method of restricting access to the better quality public sector stock (once improvements and alterations have been made) to those "deserving" applicants, while

those in greatest housing need are once again discriminated against. Therefore, although, on the surface, such an allocation policy appears progressive, when examined as far as those in greatest need are concerned it merely reiterates the status quo. Given the ambiguous role of council housing at present, especially in the major urban areas with large public sectors, it must be recognised that changes to the terms of access to council housing, through altered allocation priorities, tenure etc which result in more of a fixed quantity of good quality council housing going to the deprived, would cut across the interests of a large section of the working class, who look to the public sector to provide them with good quality accommodation.

In general terms, cooperative and co-ownership schemes in high-rise blocks have experienced varying degrees of success. The G.L.C., for example, experimented with various forms of cooperative venture from a very early date. Co-ownership schemes were established in 1972 on two very high-rental flatted estates - Ruskin Park, Southwark and Barrie, Bayswater, as a result of pressure arising from tenants. However, due to an awkward mix of tenants and owners at the outset, previously good relations on the estates rapidly deteriorated into a conflict of interests due to differential costs imposed on owners and tenants regarding repairs, maintenance etc. All tenants have since agreed that the form of transfer, in that not all tenants became owners, was at fault with pressure now to revert the estates to G.L.C. control. (Ref: Morton, (1975) for a detailed analysis of the reasons for failure). However, the new-build co-operative schemes, especially the Society for Cooperative Dwellings for young single groups ("the forgotten five million") e.g. Londons' Sanford estate appear to enjoy comparative success.

Although at the outset, the large amounts of communally owned areas in high-rise blocks would appear to foster cooperative principles, problems seem to be exacerbated by the necessity of shared responsibility for communal facilities e.g. lift contracts. Therefore, to implement such a policy successfully, attention must be given to the terms of the contract - the trade-off between responsibility incurred to powers acquired by tenants -, the cohesion of cooperative ideals among the participants and the will on the part of both parties to the deal for success. This appears especially important, given the major criticism of cooperative ventures as merely money-saving schemes for the authorities concerned. It is imperative to ensure that cooperation between participants does not, due to conflicting interests between ordinary tenants, cooperators and owners result in the demise of what could be a worthwhile venture for all concerned, given the degree of control, financial incentive and commitment desired.

As an extension of various forms of cooperative venture the question of sale of high-rise dwellings should be considered. Although this is no place to consider the wider political debate over the pro's and con's of selling council houses, a number of pertinent points should be raised specifically in relation to high-rise dwellings.

According to a survey of council tenants conducted in Glasgow (Strathclyde University/Glasgow District Council 1976) in comparison to a clear support for the sale of council houses in general (78.1%), the level of demand for high flats appeared relatively low. Only 14% of high flat tenants interviewed were interested in buying, compared to 26% of those in terraced houses and 36% of tenants in semi-detached.

Given that multi-storey estates have varying levels of letting demand, it seems imperative to briefly consider the implications of selling off both the most and least popular blocks. At the outset, it cannot be assumed that areas of high-letting demand will inevitably coincide with areas of demand for owner-occupation. In relation to house type, this point is illuminated by a consideration of the relatively high popularity of high-rise dwellings, but the low level of demand for owner-occupation within this group. Financially, owner-occupation of a high flat is unattractive to the majority of council tenants due to the extreme maintenance costs, and communal responsibility for the upkeep of the blocks.

Disadvantages of extending owner-occupation of council property usually focus on the erosion of desirable accommodation from the public sector letting pool. In addition, it is thought to undermine the rent-pooling system, in that the houses most likely to be sold are those where present rent levels are high in relation to current costs. However, this argument is debatable given the popularity, in Glasgow anyway, of the older council stock. At a more general level, it undermines the allocation of housing according to criteria of NEED, in that ability to pay will obviously favour the higher socio-economic groups. Economically, it is an attractive option for local authorities in that it involves the transfer of expenditure from the state to the individual owner, encompassing an increase of private investment in housing in the process.

While debate has focussed on the disadvantages of selling council houses at a general level, the question of a restrictive policy of owner-occupation for the difficult-to-let estates has remained largely unexplored. Although difficult to implement in practice,

due to the necessity of establishing criteria against which sale would be permissible, several advantages would accrue from such a policy option. Generally, housing accommodation which would otherwise be vacant would be brought into circulation. But its effects on ameliorating the position of those in greatest housing need would depend both on the financial terms of the offer and its availability to certain groups.

If positive discrimination in favour of the deprived, in terms of improvement prior to purchase on attractive financial terms, is implemented then an amelioration of their housing situation would result. However, the political and economic desirability of this direction could be questioned given that owner-occupiers will eventually accrue substantial benefit, out of proportion to their investment, with resale on the open market. Giving local authorities first option to buy on resale would present a more economically sound proposition. If offered to sitting tenants only, the argument that the housing would be taken out of circulation could be countered by the claim that, due to the low rate of turnover, it is already unavailable for letting. If council houses on the difficult to let estates were offered openly, then the claim of removing the accommodation from the usual public sector tenant would be more justified, implying, in this, that the purchasers would tend to be the younger, higher socio-economic groups who would otherwise look to the private sector.

The sale of the "difficult-to-let" council houses is often promoted as a mechanism for improving and sustaining the physical quality of these estates, assuming that the financial stake invested in the property gives owner-occupiers a degree of responsibility unmatched by the council tenant. However, there are a range of alternative strategies which

could result in similar ends e.g. cooperative, co-ownership schemes, tenant control.

c. A Case for Tenant Control

The Housing management system itself has been criticised for its detachment from the daily experience of the individual tenant. Governed by a legacy of petty restrictions, dictating the obligations of the tenant, the public sector landlord, especially where the stock is particularly large, is viewed as too remote, unresponsive to tenant's needs. Traditional methods of ameliorating this system have taken the form of area management offices and attempts to increase the public awareness of operation of the housing management mechanism. In addition, tenants' associations and neighbourhood groups have been encouraged as a two-way channel between officialdom and tenant. But the traditional view of professional expertise being the key to housing management is still widely held.

"The professionalising occupations seek to control as many aspects of their activity as possible - where the service is of a specialised and technical nature, the client is said to be unable to assess its quality or adequately perceive his needs as distinct from his preferences. Professions use this relationship between expert and layman to justify professional control of the occupation, and so create "social distance" between practitioner and clients" (Malpass, 1975).

Although dormant for generations, the notion of tenant participation in housing management is not new. As far back as 1886 Octavia Hill, regarding housing conditions, commented, "The improvement may come from training and subsequent employment of ladies like my own fellow

workers.....or it may come from cooperation of a consultative body of good tenants to assist the managers". And again,in 1948, a Political and Economic Planning Tract entitled "Councils and their Tenants" advocated that councils should assign management functions to local committees on which tenants would be directly represented.

Paternalistic attitudes towards council housing, viewing it as some kind of welfare benefit for those "in need", "at risk" or who "cannot help themselves" stifled any real moves towards tenant involvement. Strict controls on council tenant behaviour were, therefore, rigidly enforced, not only to cut repair costs and minimise social conflict, but also to bring the working classes into line with the perceived good behaviour standards of the middle-class administrators.

In a deep sense, the move towards tenant control at present is profoundly political as part of the drive from a paternalistic to a participatory society. However, efforts to involve tenants cannot be judged simply on technical criteria, but must be seen as political decisions related to specific goals set. Ann Richardson (1973) sees "tenant participation" schemes as attempting to attain a wide range of goals, which are not mutually reconcilable. Firstly, while increased tenant control is concerned with changing power relationships in society, it can also be viewed as a pacification measure to a certain extent, giving tenants an increased sense of involvement without necessarily affecting policy decisions very drastically. By giving tenants a regular voice in the implementation process, policy goals are often made more effective. Tenant involvement schemes are also seen as a means of further exercising

the democratic rights of the individual by ensuring the representation of tenants' views in council decision-making procedures.

The present movements towards tenant participation have, however, received widespread criticism as simply a means of shouldering off the seemingly insoluble burdens of management and maintenance onto the tenants, without any compensatory reward. Alternatively, criticism of tenant participation schemes as cover-ups for the decreased expenditure on management and maintenance seem justified given the direction of the D.O.E. circular 8/76 on Housing Cooperatives "in present circumstances, local authorities should go ahead only if they are satisfied that they can do so without incurring an overall addition to financial, manpower or other resource costs". Ward (1974) describes the "present fumbling attempts at tenant participation" as "token gestures which merely discredit the idea that people are capable of managing their own environment.....They are the shadow rather than the substance of tenant control and the tenants themselves, knowing that real power lies elsewhere are not footed".

In Scotland, the immediate prospect appears even more bleak given the apologetic four page consultation paper on Tenants' Rights etc, recently issued by the Scottish Office. (S.D.D. January 1979). In this, the emphasis on savings to the local authority concerned are reiterated, "In the longterm, giving more say to tenants may itself produce savings in time and expenditure". The brevity of the document is justified by the undesirability of imposing any rigid or uniform procedures. It is therefore difficult not to be

suspicious of the genuineness of the Scottish Office's intention. Instead of a firm and detailed commitment to legislation to give tenants the right to a written agreement, the Scottish Office outline the areas of need (just as they did in the Green Paper (1977) and ask in their familiar, weak-kneed way whether legislation is required.

Therefore, if the problem is perceived as a failure of the housing management system, tenant control, although radical, appears to be a viable alternative. Habraken (1972) suggests that "mass housing aroused the resistance of the users because of the denial of involvement and initiative to the inhabitant". Therefore, he concludes "there must be a return to consultation and participation on the part of the users in the most literal sense". But, for tenant control to be at all successful, the deal must be made on the tenants' terms. This is where the crucial difference lies in the present set of proposals, for cooperatives, participation schemes and tenant's charters alike.

In favour of tenant control, the more a tenant is involved in a property, the more care and interest will be shown, leading to a spin-off in the reduction of vandalism etc (the community involvement approach, previously discussed). Meaningful participation will also ease the burden on housing management by bridging the "them and us" gap between tenant and landlord, triggering a valuable two-way information flow. From the tenants' point of view, it is unreasonable for bureaucrats in their little ivory towers to make decisions about things which affect their daily lives, without themselves having some say.

Tenant control fosters identity, an interest in the environment -

"The need to give one's personal stamp is as important as the inclination to be unobtrusive. In short, it has to do with the need for a personal environment where one can do as one likes; indeed it concerns one of the strongest urges of mankind: the desire for possession.....Now possession is different from property. We may possess something which is not our property, and conversely something may be our property which we do not possess. Property is a legal term, but the idea of possession is deeply rooted in us. In the light of our subject, it is therefore important to realise that possession is inextricably connected with action. To possess something, we have to take possession. We have to make it part of ourselves, and it is therefore necessary to reach out for it. To possess something we have to take it in our hand, touch it, test it, put our stamp on it. Something becomes our possession because we make a sign on it, because we give it our name or defile it, because it shows traces of our existence". (Habraken, 1972)

In this era of 'community' promotion tenant control has a meaningful contribution to make if offered on acceptable terms. "When the stranger says, "What is the meaning of this city? Do you huddle close together because you love each other? "What will you answer? "We all dwell together to make money from each other" or "This is a COMMUNITY"? (T.S. Eliot, quoted in Hands (1975)). But, even in 1979, the idea that working people should in any way participate in the planning of the environment that is to be the setting for their lives is a new and to some people a startling one. But it is crucual - "The important thing about housing is not what it is, but what it does to people's lives" (Ward, 1974)

NOTES

1. An experimental programme of phone-entry systems is presently underway in 12 blocks within the city, while the installation of emergency generators to all multi-storeys is being phased over the next 4 years.

2. Additional access stairs to some of the blocks in Red Road are to cost £2.5 million, while a complete recladding of the exteriors was estimated at £1 million ("Scotsman", 28/2/78).

3. For example, G.L.C. justified expenditure on physical improvement as a concerted effort to get a situation where there is a waiting list for tower blocks, instead of a queue of families trying to get out.

4. See Sommer (1974) "Tight Spaces - Hard Architecture and How to Humanise it" for a full discussion of this approach.

5. For example, see D. Pullen in Ward (1973) for a discussion of the approach to vandalism adopted in Liverpool. More locally the Craigmillar estate in Edinburgh and some of the "area initiatives" in Glasgow e.g. Faifley typify this approach.

6. Housing Plan 1 - policy statement 4 - The District Council will "give encouragement to tenant cooperative schemes and consider other forms of modified public ownership which could give greater opportunities for private investment and local management": Policy statement 29 - "widen the range of tenure available in the City by encouraging private ownership at least up to the level of the Scottish average. Consideration will be given to radical new initiatives such as the possible sale of council houses".

7. The Campbell Report (1975) identifies three basic types of cooperative namely a) Management cooperatives - where tenants have collective responsibility for some or all management functions, but do not own property. b) Non-Equity cooperatives - where tenants collectively own or lease property, but with no individual stake in equity. Alternatively, the stake may be limited to a nominal share (Par-Value Cooperative) repayable on leaving at its original value. c) Co-ownership where tenants collectively own and manage the property, and share in the equity through a leasehold interest or entitlement to payments on leaving.

Conclusion

To conclude, it seems imperative to reiterate the major recommendations proposed. The need for research on high-rise housing to be guided in new directions is evident. Not only is a clearer explication of hypotheses required, but also a means of coordinating the individual pieces of research, both by academics and local authorities concerned. Attitude surveys should be supplemented, wherever possible, with alternative approaches using Housing Management Department records of transfer requests, reasons for movement, areas and house types preferred, vacancy and turnover rates and, if possible, some mechanism to explore the more intangible, though probably critical factors influencing housing popularity e.g. relationships of individual tenants and tenant associations with housing management officials. With a more comprehensive approach to the problem, it may prove possible to tap the processes operating to create differential rates of popularity and decline within the high-rise stock in particular, and the public sector in general. It also seems imperative to focus on the total spectrum of estate popularity, to search for the factors which comprise a "popular" estate, rather than a concern solely for the areas in decline.

But, as the outcomes of this type of analysis will not be available overnight, meantime some mechanism is required to coordinate and monitor policy responses, and to function as an information exchange system between local authorities, perhaps also drawing on foreign experience which prove fruitful in Britain. It has been suggested that the newly-formed Housing Services Advisory Group should perform these functions at a national level, although perhaps local derivatives could provide related policy suggestions, expressly

geared to local needs and situations.

Given the stated commitment to tenant control in local authority housing by both major political parties, and the failure of traditional housing management systems to cope with the problems, surely the time is ripe for a genuine investment of responsibility and control in the people concerned. Perhaps the crux of the problem lies in the fact that man no longer houses himself, he is housed.

"It is only in a society where we have a government working day and night on our behalf that the housing problems are insoluble".
Lord Goodman: Chairman of the Housing Corporation at the conference of the Town and Country Planning Association, December 1973 (quoted in Ward, 1974).

To end on a philosophical note, the only problem with high-rise housing is the way it has been manipulated -
"What I saw in Government housing was the sky-scraper,....ourselves invited to help the poor into it, to stay in it. I saw Government making a national institution of poverty, poverty so subsidised that impoverishment must go on paying rent, forever....."
(Frank Lloyd Wright, 1939, quoted in Hellman, 1973).

(approx 30,000 words)

APPENDIX A Media Treatment of High-Rise Housing

Both the national and local press and alternative media channels e.g. television, radio promote the 'stereotyped' view of high-rise housing. The examples below illuminate this point:-

Problem Definition

"High-rise towers have proved a disastrous experiment in urban dwelling. They give many of their occupants acute uneasiness. Some people arrange their furniture so as to avoid the view of the vertiginous plunge from their thirtieth-floor window. For mothers with small children, they present insoluble problems of play and supervision etc....." ("The Observer" quoted in Hellman (1973)).

Policy Direction

a) "Great Escape" Plan for High-Rise Families -" A plan to let families with young children escape from the pressures of high living in multi-storey blocks is being considered by Glasgow councillors. But the "great escape" will have to be very carefully planned to avoid chaos in other sectors of the city's housing stock etc....." ("Glasgow Herald" 21/3/79).

b)"Families Quit the Terror Tower" - "Every family in a 22-storey block of flats know as Terror Tower is being evacuated to a new home - at council expense. For, after spending thousands of pounds on repairs caused by vandalism, Edinburgh District Council Housing Committee have decided enough is enough. Tenants are being dispersed into other areas, while the council attempt to make Martello Court, Muirhouse vandalproof etc....." ("Sunday Mail"28/1/79).

The media can also mount excellent investigative probes from time to time into particular issues, but these tend to reach a smaller audience, and achieve less impact than the daily bulletins and souped-up scenarios:-

e.g. "Sunday Times" (29/10/78) - report on vandalism policy by Philip Norman: "Guardian" (14/1/76) - "Faulty Towers" by Judy Hillman: B.B.C.2 (19/2/79) "City of Towers" by Chris Booker in the "Where we Live Now" series.
Usually such articles by specialist writers are more factually correct, in nature, aimed at relatively well-informed audiences.

Community papers, both local e.g. "Glasgow People's Press" "Clydeside Action" and national e.g. "Community Action" also tend to approach problems from an informed, though biased stance, from a standpoint of viewing community self-help as the first step to changing national and local policies.
For example see "Community Action" No. 39 and "Clydeside Action" No. 5 reports on the Gorbals anti-dampness campaigns.

APPENDIX B

Policies relating to Storey-Height and Families with Children

Glasgow District Council "Housing Management Report" (1977) Consideration of Applications section (h) states, "Wherever practicable families with one or more children under 13 years of age will be housed in low rise housing. Where suitable low-rise houses are not available, such families may be housed in high-rise flats - on the lower floors if at all possible."

Similarly, the 'General Rules Governing Transfer' Section (e) states "With a view to making houses in multi-storey blocks available for the most suitable type of tenant, families with one or more children under 13 years of age living in multi-storey blocks who wish to be transferred, will be transferred to low-rise housing, if possible, or if that is not possible, to the lower floors of high-rise blocks. Houses falling vacant on the eighth or lower storeys of high-rise blocks will also be made available for the transfer of tenants living in flats on higher floors in the same or adjacent blocks who are elderly or have a medical or other approved reason for transferring".

There is no hard and fast definition of what is the highest "acceptable" level for a young family to live. D.O.E. (1974) "Social Effects of Living off the Ground" recommend, "It is essential to ensure.....that families with children are accommodated only on the ground or first floors" while the S.D.D. "Housing Handbook" recommends that young families should not be housed higher than the second floor. However "acceptable" levels range from ground to first floor (Southampton), through 3rd floor (Newham); 4th floor (G.L.C., Tower Hamlets); 5th floor (Lambeth, Newcastle); 6th floor (Brent, Birmingham); 7th floor (Liverpool) to 8th floor (Glasgow, Manchester) Edinburgh, Aberdeen

and Dundee appear to have no fixed policy regarding height levels although there appears to be a world of difference between defining "acceptable" height and implementing it in day-to-day policy.

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