

Traditional measures of bad housing have not paid much heed to the defects of the immediate environment. Yet outdoor space and facilities are as important as indoor facilities to some types of families or to all families at certain stages of the year. A brand-new home may have no garden and no easy access to an outside space for leisure, or it may be sited in an area affected by pollution or a long way from shops, pubs, cafés and transport facilities. A mouldering country cottage with a small shed and cesspit outside fulfilling the function of a toilet may have a large garden and orchard, with easy access to fresh supplies of milk, vegetables, fruit and chickens from local farms.

Social awareness of the importance of environmental conditions has become more acute in recent years in Britain. A general question on whether the environment was satisfactory was added to the 1967 Housing Conditions Survey.¹ A number of studies of improvement possibilities sponsored by the Ministry of Housing and Local Government in the mid and late 1960s called attention to the environment,² and in 1971 central departments were reorganized and the Department of the Environment created. Departmental research groups have begun to experiment with methods of relating different measures of environmental deficiencies, but government departments have as yet been shy both of adopting comprehensive scales and of discussing them publicly. It would be difficult at present to identify a 'social' standard of environmental conditions, except implicitly.

Independent research workers have attempted, in the past, to develop integrated measures of quality of housing, and recently to work towards some operational measure of environmental deficiency. Thus, there have been attempts to devise a

¹ 'House Conditions Survey, England and Wales, 1967', *Economic Trends*, No. 175, HMSO, London, 1968.

² For example, one study examined the following environmental factors: whether the home overlooked open space or whether there was open space within 440 yards, whether there was noisy or obnoxious industry adjacent or opposite, whether there was heavy traffic along the road, a railway line within 100 feet or a bus stop within 200 yards. See Ministry of Housing and Local Government, *The Deepish Study: Improvement Possibilities in a District of Rochdale*, HMSO, London, 1966.

comprehensive housing index covering different features of structure and amenities.¹ Efforts have also been made to add environmental deficiencies to these scales - for example, offensive smells, air pollution, noise, absence of grass and trees, presence of litter and parked vehicles.² But this work gives the impression of being an *ad hoc* process which does not put social perceptions strictly to the test by virtue of a comprehensive examination of dwellings and local environmental stock, facilities and services which impinge on family life and behaviour. 'Research into housing lacks sophistication ... [It] is partial and requires to be pieced together. A conception has yet to be developed that sees man in relation to his physical environment.'³ The value assumptions upon which experimental indices of poor environmental conditions are based are usually neither expressed explicitly nor critically discussed. As a consequence, deficiencies short of some presumed social standard are listed without any very clear attempt to specify the mean or median or to show the kind of privileges enjoyed by those living in spacious and well-appointed amenities. Standards, and therefore data about poor housing and environmental conditions, are still too detached from any moorings. They lack reference points in a period of rapidly changing conditions. What is required is a concept of 'environmental deprivation' which includes, for example, the lack of, or difficulty of access to, gardens, play-spaces, parks, water, shopping facilities, health centres and so on, and exposure to noise and dirt.

Social standards that have been implicitly applied, and objective standards, might begin to be formulated if social scientists were to examine in general terms the total effect now and in the past of loosely framed legislation, administrative control and guidance in the form of circulars, advisory pamphlets, grants and planning permission, local by-laws and regulations and local administrative practices. Control of environmental conditions has developed piecemeal. For example, different Royal Commissions and government committees have made recommendations about the heights of buildings in relation to open space, the space at the rear of the dwellings, and the powers that local authorities ought to have to control drainage and overcrowding and the replacement of dwellings.⁴ Through elected councils,

¹ See, for example, Chapman, D., *The Home and Social Status*, Routledge & Kegan Paul, London, 1955; Duncan, T. L. C., *Measuring Housing Quality: A Study of Methods*, Occasional Paper No. 20, Centre for Urban and Regional Studies, University of Birmingham, 1971, esp. pp. 38-43.

² For example, Medhurst, F., and Lewis, J. P., *Urban Decay: An Analysis and a Policy*. Macmillan, London, 1969.

³ Schorr, A. L., *Slums and Social Insecurity*, Nelson, London, 1964, p.21.

⁴ For example, the 1885 Commissioners on the Housing of the Working Classes recommended: '1. That upon the lines of existing enactments in the Acts of 1862 and 1878 rules of more general application be framed to control the height of buildings in relation to the open space which should be required to be provided in front of the buildings, either in the form of land exclusively belonging to each building and kept free from erections, or in the form of an adjoining street. 2. That in the rear of every new dwelling-house or other building to be con-

communities have sought to superimpose their conceptions of minimum environmental standards upon the different physical manifestations of their predecessors' policies. Control over developments has tended to remain more in local hands than has control over the development, for example, of education and health services, and has been influenced by the interests of property owners and local residents in general. By the 1950s, there was still remarkably little central definition of environmental standards and, indeed, the emphasis was upon physical and not social standards. For example, the Ministry of Housing and Local Government's guidelines issued to local authorities about the density of residential dwellings in the 1950s suggested that the principal factors affecting density of houses were type of house, garden size, space for daylight and sunlight, space for privacy, space for access and space for trees and small green spaces.¹ The social needs of different types of population, households, families and work-groups were not formulated. Some attempt is required to show, through analysis, what social standard of environmental facility is in practice being applied, and what alternative objective standard might be devised, in order to demonstrate inequalities between and within areas in the extent to which they satisfy the range of social needs of their inhabitants. In the pages which follow we can offer no more than a number of illustrations to demonstrate the value of making a thoroughgoing attempt to lay bare the privileges and disprivileges of the environment.

Three Measures of Environmental Deprivation

The first step in conceptualizing environmental needs is to consider the needs of the family or household in the immediate environment of the home. The size of gardens to which there may or may not be 'access is not usually documented nationally. This was our first measure of environmental deprivation. We found that 6 per cent of households had access to neither a garden nor a yard, and a further 12 per cent and 8 per cent respectively had access only to a yard and did not have sole use of a garden. Altogether 26 per cent of households, and 22 per cent of the persons in the sample, representing 12 million persons, did not have sole use of a garden. And 8 per cent of people, representing 4 million persons, had gardens which were too small for the household to sit out in the sun, or smaller than about ten feet square.

Our second measure of environmental deprivation was whether the parents of children

trolled by rules ordinarily applicable to dwelling-houses, and whether in old or in new streets, there be provided a proportionate extent of space exclusively belonging to the dwelling-house or building; that this space be free from erections from the ground level upwards, that it extend laterally throughout the entire width of the dwelling-house or building; that for the distance across the space from the building to the boundary of adjoining premises a minimum be prescribed; and that this minimum increase with the height of the dwelling-house or building.' See *The First Report on ... Housing of the Working Classes*, London, 1885, pp. 32-3.

¹ Ministry of Housing and Local Government, *The Density of Residential Areas*, HMSO, London, 1952, p. 6.

Table 14.1. Percentages of households and of people of different age and social class, with different forms of environmental deprivation.

<i>Form of environmental deprivation</i>	<i>Households</i>	<i>Males and females</i>	<i>Males</i>	<i>Females</i>
No sole use of garden	26	22	22	22
Garden or yard too small to sit in sun (smaller than 100 sq ft)	9	8	9	8
<i>Children aged 1-4</i>				
No safe place to play near home	34	34	36	32
<i>Children aged 5-10</i>				
No safe place to play near home	34	34	34	33
Air always or sometimes dirty, smoky or foul-smelling	27	27	28	26

aged 1-4 considered there was no safe place for the child to play in proximity to the home, and, for parents of children aged 5-10, whether there was no safe place near by to which the child could go unaccompanied to play. As Table 14.1 shows, a third of the children in each age group were believed to have inadequate outdoor play facilities. Parents could treat their garden as an adequate place in which to play, but we found, in fact, that a substantial proportion even of those with a garden as large as, or larger than, the size of a tennis court did not regard it as a suitable or adequate play-space.

Our third measure of environmental deprivation was air pollution. Heads of households or housewives were asked whether the air in the neighbourhood was clean or was dirty, smoky or foul-smelling. Twenty-seven per cent, representing 14½ million, said it was sometimes or always dirty, smoky or foul-smelling. According to each one of the three indices, therefore, a substantial minority of the population experienced environmental conditions which were deficient by social standards.

Multiple Deprivation

The three selected indicators of environmental deficiency were found to be highly correlated. Young children aged 1-4 living in homes without sole use of a garden were more than twice as likely as children in households with a garden, however

Age						Occupational class			
0-4	5-14	15-29	30-49	50-64	65+	Profes- sional and mana- gerial	Other non- manual	Skilled manual	Partly skilled and unskilled manual
26	19	26	20	21	25	11	17	22	31
11	6	10	8	7	8	1	6	9	14
34	-	-	-	-	-	25	27	35	44
-	34	-	-	-	-	35	32	33	34
31	26	29	27	24	26	17	22	31	34

small, to lack access to a place near the home where they could play safely (58 per cent, compared with 27 per cent). They were also three times more likely to be living in polluted surroundings (63 per cent, compared with 21 per cent). All households without sole use of a garden were more than twice as likely as households with a garden to be living in polluted surroundings (47 per cent, compared with 22 per cent).

Table 14.2 shows the extent to which households with and without young children experienced multiple deprivation. Eleven per cent of children aged 1-4, and 5 per cent aged 5-10, lived in households which experienced all three deficiencies, and a further 16 per cent and 15 per cent respectively experienced two. Only two of the three indicators applied to households without children aged 1-10, and 10 per cent of these experienced both inadequate garden space and polluted air.

Young children whose families had sole use of a large garden had a marked advantage in other respects over other children. Table 14.3 shows that the size of garden was highly correlated not only, as one might expect, with there being a safe place to play, but also with unpolluted air. Seventy per cent of those whose families had sole use of a large garden, compared with only 23 per cent of those with the use of only a small garden or yard, or no garden or yard at all, had a safe place to play and unpolluted surroundings. Only 1 per cent, compared with 37 per cent, had neither a safe place to play nor unpolluted surroundings. The same

Table 14.2. Percentages of people with none, or one, or more of three selected forms of environmental deprivation.

Number of environmental deficiencies ^a	Percentage of persons in households		
	Children aged 1-4	Children aged 5-10	No children aged 1-10
3	11	5	-
2	16	15	10
1	30	32	29
None	44	48	61
Total	100	100	100
Number	452	617	4,514

NOTE: ^aNo sole use of garden or yard ; or garden/yard too small for household to sit in sun; no safe place to play near by; air polluted sometimes or always.

Table 14.3. Percentages of children aged 1-4 living in homes with gardens of different size who did not have a safe place to play near by and with some or a lot of air pollution.

Whether safe place to play, and air sometimes or always polluted	Size of garden or yard		
	None or small No sole use of garden or yard, or too small for household to sit in sun (under 10 ft sq)	Medium Over 10 ft sq, but not as large in size as tennis court	Large Size equivalent to tennis court or larger
Neither safe to play nor unpolluted	37	14	1
Not safe to play but unpolluted	17	22	15
Safe to play but polluted	22	15	14
Both safe to play and unpolluted	23	49	70
Total	100	100	100
Number	107	224	121

trends applied to children aged 5-10 (see Table A.55, Appendix Eight, page 1034).

Finally, we compiled two indices: one for households in which there were children aged 1-10 inclusive, and the other for households without children of this age. A score was compiled as follows:

Air sometimes dirty, smoky or foul-smelling	1
Air always dirty, smoky or foul-smelling	2
Garden smaller in size than tennis court but large enough to sit in	1
Garden too small to sit in	2
No garden or yard	3
No safe place near home for child to play	2
Maximum score, households with children under 11	= 7
Maximum score, other households	5

A high proportion of people in households with young children experienced substantial deprivation - 53 per cent having a score on the environmental deprivation index of 3 or more and 12 per cent of 5 or more.

Social Characteristics of the Environmentally Deprived

Lack of adequate garden and play-space are in large measure a function of the standards adopted historically by the housing market and in public housing policies, but air pollution is a consequence of the more general interplay historic ally and at

Table 14.4. Percentages of people, in households with and without children under 11 years, according to their degree of environmental deprivation.

<i>Households</i>		
<i>Score on environment index</i>	<i>With children under 11 years of age^a</i>	<i>Without children under 11 years of age^b</i>
0	8	25
1	15	37
2	24	21
3	31	12
4	10	4
5	9	1
6	3	-
7	0	-
Total	100	100
Number	2,630	3,154

NOTES: ^aMaximum score 7.

^bMaximum score 5.

Table 14.5. *Percentages of people in different regions with different forms of environmental deprivation.*

<i>Region</i>	<i>Air always or sometimes polluted</i>	<i>No garden or yard or too small^a</i>	<i>No place for young children to play near by^b</i>	<i>Number</i>	
				<i>All persons</i>	<i>Children 1-4</i>
Northern, Yorks and Humberside	59	28	55	681	53
North-West	35	26	56	676	56
Greater London	28	31	29	800	55
Northern Ireland	26	31	(31)	283	26
South-East	26	7	29	888	55
Anglia and East Midlands	21	20	23	607	57
West Midlands	20	10	30	806	50
Scotland	15	26	31	609	61
South-West and Wales	12	15	20	637	54

NOTES: ^aToo small for household to sit in sun (10 feet square).

^bChildren aged 1-4 only.

the present time of land use and control. The distribution of deficiencies varied widely by region, as Table 14.5 shows. By far the largest proportion of population experiencing air pollution was to be found in the Northern, Yorkshire and Humberside region, as many as 27 per cent saying the air was always, and another 32 per cent saying it was sometimes, dirty, smoky or foul-smelling. This region was also among the five regions with the largest percentages of population lacking adequate garden space, and was one of the two regions with least adequate play-space near the home for young children. The North-West, Northern Ireland and Greater London ranked high on all three dimensions and Scotland and the South-East high on two dimensions. The South-West and Wales region as a whole produced the lowest or near to lowest percentages. All nine regions are, of course, extensive and each contains areas in which very high proportions of population experience environmental deficiencies.

Fewer old than middle-aged adults, and fewer young single than young married adults, had access to a garden, and more shared a garden or yard. Some old people who were council tenants had bed-sitting rooms on the ground floor of blocks of flats, and among owner-occupiers old people were more likely than others to be living in older types of terraced houses without gardens. A substantial proportion of single adults under 60 lived in privately rented furnished rooms or unfurnished flats and shared gardens with other tenants or had no access at all to a garden or yard.

Table 14.6. Percentages of households of different type with or without gardens or yards and percentages of people with sole use of garden, according to its size.

<i>Garden/yard</i>	<i>Single person 60 and over</i>	<i>Under 60</i>	<i>Man and woman</i>	<i>Man, woman and children</i>	<i>Other house- holds without children</i>	<i>Other house- holds with children</i>
Neither garden nor yard	10	15	7	6	4	2
Shared yard	5	7	4	2	3	2
Shared garden	14	32	8	5	5	3
Sole use yard	11	5	7	10	7	8
Sole use garden	59	42	74	77	81	84
Total	100	100	100	100	100	100
Number	236	122	534	480	384	261
<i>Sole use yard or garden</i>						
Too small to sit in sun	12	11	10	7	8	9
Medium size	64	58	60	61	57	53
Large	23	32	30	32	36	38
Total	100	100	100	100	100	100
Number	169	57	859	1,737	1,097	1,245

Although over three quarters of households with children had sole use of a garden, some of these (rather fewer than 1 in 10) had gardens which were too small to sit in the sun. Eighteen per cent of households consisting of man, woman and children had neither a garden nor a yard, or only sole or shared use of a yard (Table 14.6).

Environmental deprivation tends to vary sharply with class (Table 14.1). Seventeen per cent of persons of professional or managerial occupational class, compared with 34 per cent of persons of partly skilled and unskilled class, experienced some or a lot of air pollution. The corresponding figures, among those with sole use of a garden or yard, whose garden or yard was too small to sit out in the sun were 1 per cent and 14 per cent respectively; and children aged 1-4 with no safe place to play near the home, 25 per cent and 44 per cent respectively. There was one exception, as the table shows. There was no significant variation by class in the proportion of children aged 5-10 who had no safe place to play near the home.

Poverty, Class and Tenure

There tended to be some association between poverty, as judged by the state's standard, and different forms of environmental deprivation. Thus, 30 per cent of those with incomes of less than the supplementary benefit standard, compared with

Table 14.7. Percentages of people poor, marginally poor and non-poor, by the state's standard, with different forms of environmental deprivation.

<i>Form of environmental deprivation</i>	<i>Net disposable household income last year as % of supplementary benefit scales plus housing cost</i>		
	<i>Under 100</i>	<i>100-39</i>	<i>140+</i>
No sole use of garden	30	26	19
Garden or yard too small for household to sit in the sun	10	11	7
No safe place for children aged 1-4 to play near by	(47)	30	35
No safe place for children aged 5-10 to play near by	(40)	20	36
Air always or sometimes polluted	35	23	28
Number of persons	312	1,121	3,713
Number of children 1-4	32	129	253
Number of children 5-10	45	138	354

19 per cent of those with incomes distinctly above that standard, lacked sole use of a garden. In other instances, namely no safe place to play for children and air pollution, there was little or no correlation, or it was slight. It should be remembered that the quality and costs of housing are ignored in applying the supplementary benefit standard and that a wide range of incomes are included in the final column of the table. The findings reported in Table 14.7 are less clear-cut than might be expected and invite elucidation.

We have already seen that the variation in environmental deprivation by occupational class was marked. Indeed, within each of the broad income groups defined by the supplementary benefit standard, namely, the poor, the marginally poor and the non-poor, environmental deficiencies tended to be more widespread among those of lower than higher occupational class (Table A.56, Appendix Eight, page 1035).

This is largely explained both by variation in tenure and in value of assets held.

Table 14.8. *Percentages of people in different types of tenure who experienced different forms of environmental deprivation.*

<i>Form of environment deprivation</i>	<i>Owner-occupiers</i>		<i>Renting</i>			
	<i>Fully owning</i>	<i>Paying mortgage</i>	<i>Council</i>	<i>Privately (furnished)</i>	<i>Privately (unfurnished)</i>	<i>Rent free</i>
No sole use of garden or yard	7	3	15	58	24	18
Garden or yard too small for household to sit in sun	8	6	5	22	21	2
No safe place for children aged 1-4 to play near by	(47)	31	27	(42)	59	-
No safe place for children aged 5-10 to play near by	22	40	26	(39)	48	(33)
Air always or sometimes polluted	23	26	26	26	44	14
Number all persons	1,202	1,694	1,819	262	802	197
Children 1-4	30	177	158	24	55	18
Children 5-10	63	232	219	23	64	21

Table 14.8 shows that more private unfurnished tenants than people in other tenures experienced polluted surroundings and lack of a safe place for young children to play, and more of them and of private furnished tenants than others lacked exclusive access to a medium-sized or large garden. Rather more council tenants than owner-occupiers lacked sole use of a garden or yard, but in other respects the proportions of people in these two types of tenure who experienced the environmental deficiencies which we had selected for study were not widely different.

Table 14.9. *Percentages of people in households with and without children under 11 years experiencing a substantial degree of environmental deprivation.*

<i>Characteristic</i>	<i>% scoring 3 or more on environment index^a</i>		<i>Number of base</i>	
	<i>With children under 11 years</i>	<i>Without children under 11 years</i>	<i>With children under 11 years</i>	<i>Without children under 11 years</i>
<i>State poverty standard</i>				
below supplementary benefit standard	87	20	136	163
100-39 % of standard	63	16	620	471
140-99 % of standard	49	19	959	743
200+ % of standard	42	16	592	1,376
<i>Income net worth</i>				
below 50 % of mean income net worth of household type	75	25	180	321
50-89 % of household type	62	21	996	973
90-119% of household type	53	19	352	393
120-99% of household type	30	10	308	555
200+ % of household type	14	6	100	136
<i>Occupational class</i>				
Professional	18	8	183	154
Managerial	31	15	141	146
High supervisory	41	6	253	705
Low supervisory	47	12	388	434
Routine non-manual	41	18	149	319
Skilled manual	60	18	880	918
Partly skilled manual	69	20	416	529
Unskilled manual	77	21	220	349

NOTE: ^aAs defined above, page 535. Only two items apply to households without children under 11 years of age, and the maximum score is 5 compared with 7 for households with such children.

Once the value of assets held, including the value of owner-occupied property wholly or partly paid off is taken into account, however, the relationship between environmental deficiencies and social and economic factors is easier to explain. More than half the children aged 1-4 of those with net income worth of less than half the mean for households of their type, compared with only 12 per cent of those with twice or more than twice the mean, had no safe place near by in which to play. The wealthier households were able to halve their chances of living in polluted surroundings. And among the wealthiest group with twice or more than twice the mean net income worth for their household type, the lowest incidence of environmental deprivation was to be found among owner-occupiers. (See also Table A.57, Appendix Eight, page 1036.)

Table 14.9 illustrates our discussion. The table brings out the particular disadvantages of poor families with young children. For these households, the association with environmental deprivation is more marked when we examine their income net worth than when we examine their net disposable income (both being expressed as a percentage of the state's poverty standard for ease of comparison). And because manual workers have worse access than non-manual workers to wealth in general and owner-occupation in particular, their children are much more likely to experience poor environmental amenities.

Summary

This chapter extends the analysis of deprivation from housing to the immediate environment and should be read in conjunction with chapter 13. Three measures are applied: existence and size of garden adjoining the home; frequency of air pollution; and whether or not children aged 1-4 and 5-10 have a safe place to play outside. As many as 22 per cent of the population, representing 12 million, lacked sole use of a garden, and 8 per cent, representing 4 million, had gardens which were too small for the household to sit out in the sun. Twenty-seven per cent, representing 14½ million, experienced some degree of air pollution, including 8 per cent who said the air in the neighbourhood was always dirty, smoky or foul-smelling. Over a third of children aged 1-10 were said to have no safe place in which to play in the immediate environment of the home.

The three measures were highly correlated. For example, households without sole use of a garden were more than twice as likely as households with a garden to be living in polluted surroundings. As many as 11 per cent of children aged 1-4 experienced all three forms of deprivation.

By far the largest proportion of population experiencing air pollution were to be found in the Northern, Yorkshire and Humberside region. This region was also one of the five regions with the largest percentages of population lacking adequate garden space, and was one of the two regions with least adequate play-space for young children near the home.

Environmental deprivation varies sharply by occupational class. For example, 17 per cent of persons of professional or managerial status, compared with 34 per cent of persons of partly skilled and unskilled status, experienced some or a lot of air pollution. Twenty-five per cent of children aged 1-4 of the former, compared with 44 per cent of children of the latter, had no safe place to play near the home.

There was an association between poverty, as judged by the state's standard, and certain forms of environmental deprivation. But this association was not strong and tended to be masked by variation in tenure and assets held within each of the three broad groups of poor, marginal poor and non-poor. When the value of assets held, including the value of owner-occupied property wholly or partly paid off, was taken into account with income, and the distribution among the non-poor examined, wealth and environmental deprivation could be shown to be inversely correlated to a very marked extent. Thus, the chances of living in polluted surroundings were halved for the wealthiest households. More than half the children aged 1-4 of those with net income worth of less than half the mean for households of their type, compared with only 12 per cent of those with twice or more than twice the mean, had no safe place near by to play. Our data showed that over two thirds of the families of manual workers with young children had a marked degree of environmental deprivation. This is a finding which can only in part be put right by improved industrial location policies and urban planning. Young working-class families would seem to need a better share of resources and better access to homes with gardens and other environmental amenities.