Tackling Vandalism

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A HOME OFFICE
RESEARCH UNIT REPORT

HOME OFFICE RESEARCH STUDIES

'Home Office Research Studies' comprise reports on research undertaken in the Home Office to assist in the exercise of its administrative functions, and for the information of the judicature, the services for which the Home Secretary has responsibility (direct or indirect) and the general public.

On the last pages of this report are listed titles already published in this series, and in the preceding series *Studies in the causes of Delinquency and the treatment of Offenders.*

Foreword

The studies reported in this volume form part of a programme of research initiated because of increasing public concern with the problem of vandalism. This programme consisted of five studies, one of which, an investigation of bus vandalism, has already been published in *Crime as Opportunity* (Home Office Research Study No. 34) and another, concerned with vandalism of telephone kiosks, is still in preparation.

Each of the three studies reported here deals with a different aspect of the phenomenon. The first examines the problems of measuring the extent and distribution of vandalism. It concludes that comparatively little vandalism is directed against people's personal and private property (highest rates of damage are sustained by schools and other property belonging to local and public authorities, as well as shops); and that only a small proportion of incidents are reported to the police whose records, consequently, considerably under-represent the scale of the problem. The second study focuses on the prevalence of destructive behaviour among adolescent schoolboys and indicates that, although many boys engage to some extent in minor vandalism, it is only a minority who are seriously involved; the study goes on to examine the ways in which a boy's friends, parents and school can affect the likelihood of his involvement. The third study, influenced by the 'defensible space' hypothesis of Professor Oscar Newman, is concerned with the extent to which vandalism is affected by building design and layout; results from a survey of London municipal housing estates provide limited support for Professor Newman's ideas and also show the relevance for vandalism of the densities at which children are accommodated on estates.

As one of the principal aims of the research was to shed light on the feasibility of different approaches to the reduction of vandalism, the implications for preventive policies arising directly from the findings of the studies are considered in the relevant chapters. The wider issues involved in tackling vandalism are also discussed in the final pages of the volume: the report notes the absence of any panacea for the problem, argues that what has been lacking is sufficient consideration of the administrative contexts in which action can be taken and briefly describes a new approach to the relationship between research and action which, it is hoped, may help to remedy this deficiency.

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July 1978

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Introduction

For anyone living in one of our large cities vandalism is an inescapable fact of life. Each day the results of this deliberate damage - to street lamps, bus shelters, empty buildings, and shrubs or trees - may be seen. Inconvenience or even danger to life can result if lifts or public telephones are put out of action, but most instances of vandalism are of themselves rather trivial. It is in aggregate, rather, that vandalism is a serious problem. The costs of repair, though these fall largely on public bodies, must run into many tens of millions of pounds each year. And while not the sole cause of urban blight, vandalism is perhaps the aspect that gives most offence.

Unlike most other crime, the results of vandalism are, of course, highly visible, Most people passing a house might be quite unaware that it had been burgled on the evening before, but hundreds of people for weeks after may see the damage inflicted in a few moments to a bus shelter or pedestrian underpass. And even those who do not live in cities and who may more rarely see vandalised property can hardly be unaware of the problem. Few weeks pass without the newspapers or television giving prominent coverage to some new incident of a classroom that has been ruined or of a train that has been wrecked by football supporters. The media naturally concentrate on the more dramatic instances and their treatment of these, it is thought, can provoke or contribute to 'moral panic' about the state of society (Cohen,1973) and can also provide a convenient focus for people's other anxieties. Vandalism, taken here as approximately equivalent to the legal category of criminal damage,[1] may as a result become mixed up in people's minds with general worries about hooliganism and breakdowns in public order, and with more specific fears of being robbed or attacked in the street - some 22 % of members of the public interviewed in a recent survey (Research Bureau Limited, 1977) undertaken for the Home Office defined the dangers of such personal attack as vandalism.

Wider concern about environmental issues, has also lead to the use of'vandalism' (e.g. Ward, 1973) to describe the mistakes of town planners and architects as well as industry's pollution of the environment, but this raises important issues about the ambit of the criminal law which fall outside the scope of the research described in this volume.

When one adds to the problems of definition the fact that the Criminal Statistics (Home Office, annually), because of under-reporting of criminal damage to the

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[1] There is no statutory offence of'vandalism', but most of the deliberate or malicious damage to property which is commonly referred to as vandalism could be prosecuted under section 1 of the Criminal Damage Act 1971 and would appear in the Criminal Statistics under 'criminal damage'. While the broad intention in this volume has been to deal only with deliberate or malicious damage (excluding serious cases of arson), it was necessary in the studies reported in Chapters 2 and 4 to use records of damage that did not always allow a clear distinction to be made between such deliberate damage and damage arising out of misuse, rowdyism, or in the furtherance of theft. In Chapter 3 some rather minor manifestations of deliberate damage, which would not ordinarily be prosecuted, are also included under vandalism.

police, appear to greatly understate the extent of vandalism (Home Office, 1975) and that we know little about those responsible for the damage as so few are caught, it is evident that research in this area faces many difficulties. In fact, when the studies of vandalism reported here were begun, there had been comparatively little research specifically concerned with this kind of delinquent activity. This previous work will be discussed at relevant points in subsequent chapters. The immediate task is to explain why the present studies were undertaken and which questions they sought to address. As these were only a few of the possible questions, it is also important to state what was left out of account and why.

The stimulus for the research

The immediate stimulus for the research was an approach made in 1972 by Manchester and Liverpool City Councils to the Community Programmes Department of the Home Office (which at that time had responsibility for the Community Development Projects and the Urban Programme) for advice on how to make best use of community development officers in preventing vandalism. In turn, the Home Office Research Unit was consulted, but there little was relevant advice that could be given on the basis of available research. It had been recently decided, however, in the aftermath of a series of studies which had thrown considerable doubt on the effectiveness of penal treatments (see Brody, 1976, for a recent review), to devote more of the Unit's resources to exploring other approaches to crime prevention. Given the increasing public concern about vandalism, it seemed an appropriate topic with which to begin.

Objectives

The broad intention of the work which was mounted was to provide information that might have preventive implications, or at least would enable comment to be made on the likely effectiveness of a range of possible solutions: Should one try to instill more respect fot property in the young? Should parents be exhorted to exercise greater supervision over their children's movements and should schools be encouraged to exercise firmer discipline? Should there be more youth clubs, adventure playgrounds, and sports facilities to give vandals greater outlets for their energies? Should the police be encouraged to pay more attention to the problem and the courts to be tougher on the vandals who are caught? Should more vandals be given 'treatment' by psychologists and social workers? Or should we merely make it more difficult for damage to be committed through better design of property and by using stronger materials ?

In order to address some of these questions it seemed important, first, to obtain a clearer picture of the nature of the problem, its extent and distribution, and the sort of individuals involved. Second, a clearer understanding of the 'causes' of the behaviour seemed necessary; in other words we needed answers to the question: 'Why is damage deliberately committed?'

Such a question is capable of many different answers depending on the theoretical orientation or point of view of those responding. This is perhaps best illustrated

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Fig 1:1- Groups of variables contributing to an explanation of vandalism*

*Adapted from Clarke (1977)
[Figure 1:1 unavailable]

by considering the diagram at Figure 1:1, where some, but not all, of the factors that have been put forward as contributing to an explanation of delinquency - and, therefore, by extension to an explanaton of vandalism (as defined earlier) as a form of delinquency are arranged in groups. Broadly speaking, the top part of the diagram deals with variables (Groups 1-3) that have been traditionally emphasised by psychologists: the child's early environment and upbringing; the kind of love and discipline received from his parents; the values he has been taught; and the kind of personality - aggressive, extroverted, impulsive - that he has developed as a result, or to which he has been genetically predisposed. Group 4 includes those demographic and socio-economic features basic to any sociological explanations of delinquency, such as class and occupational status. These are seen as broadly determining an individual's opportunities for achieving success and personal satisfaction in his life and, hence, whether or not he is likely to turn to crime. Group 5 concerns a more detailed level of sociological analysis: the control that parents exercise over a boy's freedom of movement; the kind of area he lives in; the sort of school he attends; whether his friends are delinquent; and the way he spends his leisure (e.g. does he spend a lot of time on the streets ?). All of these may be seen as influencing whether or not he 'drifts' into delinquent pastimes or activities.

The variables in Groups 1-5 may thus be seen as conducive to a general predisposition to offend. But even those individuals who have been predisposed to behave criminally may only choose to do so rather rarely and Groups 6-8 deal with variables which more directly influence the decision to commit a particular offence, in this case an act of vandalism. In the first place, a readiness to commit damage may result from feelings of boredom, anger, or frustration, and these in turn may be produced by some recent crisis or misfortune (Group 6): the youth may have lost his job, he may have been given-up by his girlfriend, or he may have had a crash on his motorbike. In addition, the immediate features of the situation will be important in the choice of target and perhaps even in 'triggering' the behaviour (Group 7): a boy may be more likely to vandalize a telephone kiosk if it has already been damaged, if it is in a secluded area, if there are no houses near-by, if the lighting is poor, if the police do not regularly patrol, and so on. Whether he decides to do so or not will depend on how he perceives the opportunities in the situation and the judgements he makes about the offence, i.e. on certain perceptual and cognitive processes (Group 8) - for example, some implicit assessment of the 'morality' of the act in terms of its consequences for other people may be made, and the chances, as well as the consequences, of getting caught may also be calculated.

It is evident that an 'explanation' of vandalism which satisfied all these differing viewpoints would be very difficult if not impossible to achieve; and for any research to be manageable its scope would have to be limited to investigation of some part of the total picture. But it is difficult to decide which of the variables would be most worth investigating. First, we do not know the relative explanatory power of the groups of variables shown in Figure 1: 1. It is conceivable, for

example, that 'situational' features play a much greater part in an act of vandalism than the fact that the individual responsible comes from a broken home - but this is not certain. Second, there are some variables, such as the individual's emotional state at the time of the offence, which may be relatively important in explanation, but about which it would be very difficult to obtain reliable information. Third, the explanatory power of particular variables does not necessarily match their importance for prevention - a point that has been well made by Wilson (1975). He has argued that most criminological research has been concerned with investigating the contribution to criminal behaviour of genetic, developmental and socio-economic characteristics of individuals. These have all been found to play some part in crime but it is very difficult for governments, or society at large, to do anything about them in the short-term. How can one make parents, who are not so disposed, love their children? What can be done about the demographic position of crime-prone individuals, or indeed about their particular personality characteristics ?

As it happens the variables traditionally favoured in criminological research are those less immediately contiguous to the commission of a criminal offence. This means that the preventive implications are necessarily of a longer-term nature and also that they usually derive from a chain of argument linking cause and effect through a lengthy series of hypothetical conditions or events. It seemed preferable, therefore, to concentrate on those variables more immediately impinging on the offence itself as these might be expected to yield more direct and immediate implications for prevention. Of these variables, those concerned with the situation (Group 7 in Figure 1:1) seemed to be most amenable to study. It was quite easy to see how aspects of the situation might be changed - more robust materials used; better siting and design of vulnerable property and improved surveillance; more police patrols, etc. - to reduce the opportunities for offending (cf. Mayhew et al., 1976). As vandalism has been characterised as a peculiarly opportunistic kind of offence (Wade, 1967) such an approach seemed especially useful. However, the 'predisposing' factors more traditionally favoured by psychologists and sociologists were not entirely neglected; a study mounted to see how far adolescent boys are involved in vandalism provided the opportunity to examine some of the explanatory variables of Group 5. Since these represented some of the more contemporaneous predispositional influences, it was thought they might have correspondingly greater relevance for prevention.

The studies

Five studies in all were mounted by the Research Unit. The first two were mainly intended to provide information about the nature of the problem, though the second included also some examination of predispositional features. The remaining three studies were concerned primarily with situational aspects of particular kinds of vandalism. The five studies covered the following topics

(1) The extent of vandalism in a six-month period on a council estate in Manchester. Police and local authority records were examined and victim surveys were conducted of residents, shopkeepers, and head teachers in the area.

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(2) The self-reporting of vandalism and other offences committed in a six-month period by some 11-15 year old schoolboys in a Northern city. The boys were also asked about their friendships, leisure pursuits, extent of parental supervision, and their attitudes to school.

(3) London housing estates. The aim was to test Oscar Newman's (1972) ideas about the relationship between architectural design and crime ('defensible space').

(4) Vandalism on double-deck buses of different design. The intention was to see if the amount of supervision that could be given to passengers by the crew affected levels of vandalism.

(5) Vandalism to some 200 telephone kiosks in a 'typical' London borough. Damage was examined in relation to characteristics of the population living in the surrounding area and, more especially, to variables relating to the siting of boxes.

The study of vandalism on buses ((4) in the above list) has already been published in full (Mayhew et al., 1976) and that of telephone kiosk vandalism ((5) in the above list) is to be included in a forthcoming report dealing with aspects of surveillance and crime. The remaining three studies, together with their more direct preventive implications, are respectively discussed in the following three chapters. The fifth chapter reviews some further implications of the programme of research as a whole and the final chapter makes some observations on future effort in this field.

2 Measuring vandalism in a city suburb (by A. Sturman)

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Police records and vandalism
Direct reports of victimisation

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The victim surveys

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d. Victim survey of residents
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Aims

The study reported in this chapter was an attempt to obtain a picture of the extent of vandalism on a large council housing estate in the suburbs of Manchester. It was conceived as the first stage of an evaluation, never subsequently mounted, of a scheme which involved employing residential community development officers to reduce vandalism on a number of Manchester estates. The apparent discrepancy between the police records of damage for the areas in which the community development officers were to be located and the high levels of vandalism these areas were reputed to have presented an immediate difficulty. Any evaluation would require the use of accurate measures of vandalism, and it was decided therefore that the first priority would be to develop such a measure.

The study comprised two exercises: first, all available records on vandalism on the estate were examined and compared; secondly, additional information on vandalism was collected by means of victim surveys. Thus the study provided the opportunity to compare the picture of vandalism presented in official records, in particular those of the police, with that presented by victims of damage. In addition, it made it possible to obtain a more reliable picture than exists in the literature of the extent and nature of vandalism in one locality. Finally, since previous surveys of victims have mainly been concerned with serious crime, the study enabled the methodological soundness of this technique to be tested in relation to what is arguably a less serious form of offence.

Police records and vandalism

The most commonly used source of information concerning crime and criminals are the annually published Criminal Statistics based on police returns, and the most comprehensive information about crime in these returns is to be found in the section, 'indictable offences recorded by the police'. One of the most important elements in the production of these particular statistics relates to the willingness of citizens to report incidents to the police which they have perceived to be criminal and which they think should be given some attention. McCabe and Sutcliffe (in preparation) have found that in one Northern city 83% of offences known to the police were reported by the public. This willingness is affected by the nature and seriousness of the offence, the offender-complainant relationship, and the complainant's perception of police effectiveness (see for example Banton, 1964; Block, 1974; Hindelang, 1974; and Belson, 1975).

In fact, the rate of reporting vandalism to the police appears to be very low, probably because much of it is not considered serious enough to notify, the majority of incidents are not witnessed at first hand, and reporting them may be seen as too late for effective action. It is also suggested sometimes that certain groups, elderly people for instance, fear victimisation if it becomes known that they have reported vandalism to the police and also that some people are afraid of becoming involved in court proceedings.

Direct reports of victimisation

In the United States the methodological foundations for the use of victim surveys (social surveys in which samples of the general population are questioned about crimes of which they have been the victims) were laid in the work for the President's Commission in 1967. Since then the Federal Government has introduced the National Crime Panel studies which involve a continuous national survey, as well as periodic surveys in selected cities. Elsewhere, the use of surveys to measure crime has become increasingly common. For instance, in England, Sparks et al. (1977) have conducted surveys in three London boroughs, the exercise being primarily methodological, while victim surveys financed by the Dutch Ministry of Justice have also been carried out in the Netherlands.

Results from methodological studies have provided sufficient evidence to justify the use of well-designed surveys to study the incidence of serious crime. Sparks et al. (1977) suggest that victim surveys of vandalism might be problematic since a great deal of damage is so minor that it would not easily be recalled; in addition they have questioned the accuracy of information about damage relating to public property where there is no single victim.

The study area

The population of the district chosen, which formed part of a large council estate situated outside the centre of Manchester, was just under 17,000 at the time of the 1971 Census, and comprised 4,987 households. The property was predominantly semi-detached housing, although about one quarter of the residences were flats or maisonettes. One part of the district, the Civic Centre, which reputedly suffered most from damage, was predominantly a shopping centre. It also contained a library and swimming pool, however, and three multi-storey blocks of council flats occupied solely by the elderly. Subjectively the estate as a whole seemed in reasonable condition, only particular localities showing signs of the heavy vandalism which presumably led to its inclusion in the community development scheme.

Sources of data

Records

In addition to the police statistics, records of damage committed in the area were collected from the Post Office and two local authority departments (Parks and Direct Works).[1] The Direct Works Department (DWD) was responsible for repairingmost of the council property in the area and would act upon householders' reports of damage and their own maintenance inspections. These agencies did not report damage to the police unless there were unusual circumstances that seemed to indicate that police involvement was necessary or would be useful (see overleaf).

No records on vandalism to bus shelters were available, although these are common targets for damage. Otherwise, the records used cover the major varieties of fixed public property which tend to get damaged.

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Though a distinction was made in the records of the different agencies between accidental and deliberate damage to property, it was impossible to know whether these were always defined in the same way. In all the agencies' records, however, wherever incidents of accidental damage, ordinary wear and tear, and damage known to have been caused in the course of other crime (for example theft) could be clearly identified, these were excluded from the category of 'deliberate damage'. It was not always known whether the incidents recorded were the result of one or more attack and the number of recorded incidents, therefore, probably under-estimates the actual attacks involved.

The records were analysed for a period of six months in 1973 - the latest date for which information was available at the time.

The victim surveys

In order to obtain information about their experiences as victims, 141 tenants (out of an original sample of 205) on the estate were interviewed from the same number of households. Twenty-one per cent of the original sample refused to co-operate and a further 10 % could not be contacted. There were no differences in the refusal and non-contact rates of occupants of the different types of property. A disproportionately large number of residents in multi-storey blocks of flats on one part of the estate (the Civic Centre) were interviewed as this area was reputed to suffer high rates of damage. The sample was also stratified to ensure that all types of households (single people, families and married couples) and all types of property (flats, maisonettes and houses) were adequately represented. The 141 households (50 % flats, 39 % houses and 11 % maisonettes) visited comprised about 3 % of the total number of households in the study area. The majority of the respondents were working class and had lived on the estate for a number of years. Because of the housing allocation policy and the stratification of the sample, a large proportion of the respondents (50 %) were over 50 years of age, including all the residents of the Civic Centre.

Respondents were asked to report incidents of damage which had occurred to any part of their property (house, outbuildings, garden, fences, cars) during the previous six months. Questions on damage were only asked after a series of more general questions about the problems of the area.

The questionnaire was designed to elicit information about damage both to the respondent's own property and to other property on the estate, but as reports of damage to property other than their own appeared to be very unreliable, the main survey was supplemented with two smaller victim surveys - one directed at schools, the other at shops and various service establishments (such as banks, post offices and social service departments), all called 'shops' below for convenience. The two surveys were carried out at the same time of the year, although one year after the resident's survey: all shops and all but one school in the study area were approached.

For the school survey, ten head teachers were interviewed. For the survey of shops, interviews were carried out with 78 people (shop managers and shop

assistants) in the same number of shops. A further 20 shops were identified (comprising a high proportion of service establishments and cafes), but these were either closed or too busy to co-operate; most of these were outside the Civic Centre. All respondents were asked to supply information about damage over the previous six months to property for which they were responsible and about their reporting practices with regard to such damage.

Findings

a. *Police records*

Although damage valued by the police at   20 or less was not included in *Criminal Statistics* at the time of the study[1] records of such damage, as well as damage valued at over £20, were supplied by the local police force. Table 2: 1 shows the number and types of these offences for the six months under study.

Table 2:1
Offences of damage in police records

	£20 and under	*more than £20*	*Total*
Damage to shops	10	13	23
Damage to houses	13	4	17
Damage to motor vehicles	6	1	7
Damage to schools	2	2	4
Other damage	6	7	13
Total damage	37	27	64

The greater proportion of offences (58 %) were of a minor nature. Almost half of the more serious damage involved shop premises, mainly due to the high replacement costs of large plate glass windows. Consequently, the greater proportion of serious damage occurred within the Civic Centre, where there was a concentration of shops.

b. *Post Office records*

There were 125 incidents of damage recorded to the 16 telephone kiosks in the area. In the Civic Centre the two telephone kiosks suffered 21 attacks whereas the average number of attacks per kiosk in the remaining area was 7.4.

c. *Local authority records*

During the six-month period the DWD recorded 264 incidents of damage to local authority property, almost all of it outside the Civic Centre. Of the incidents recorded, 63% involved damage to dwellings, with flats and maisonettes suffering.

[1]From **1977 onwards such damage is to be included in the** *Criminal Statistics,* but these will: still greatly understate the scale of the problem.

to a greater extent than houses. A further 34% of the damage was to school property.

Excluding graffiti which were very irregularly recorded, the Parks Department could account for 16 incidents of damage on the estate. Ten of these involved damage to trees, and three were of broken windows.

d. *Victim survey of residents*

Six of the 141 interviewees reported between them a total of seven incidents of damage to their own property. If this finding (taking into account the way the sample was stratified) is extrapolated to the estate as a whole, an estimate of 206 incidents of damage to residents' property may be calculated. However, because the sample of households comprised only about 3 % of the total number of households in the survey area, and because they reported so few actual incidents of damage, the estimate of 206 must be considered tentative. At the same time, the number of discrete incidents of damage to households recorded by the police and the various other agencies (principally the DWD) totalled 179 - not a very discrepant figure.

Only one of the seven incidents of damage to residents' own property had been reported to the police, although five of them had been reported to the DWD - presumably because the DWD would effect repairs.

The survey of residents had serious limitations for eliciting information about damage to property other than their own dwellings and for this reason the data are not presented here. Interviewees' recall was not sufficiently detailed to enable accurate identification of many incidents of damage reported, and when respondents noted that properties were frequently damaged it was not certain whether they were reporting the same unrepaired incident several times. Probably the most important problem was one of overlap - it was not always possible to tell whether different people were reporting the same incident or not.

e. *Victim survey of shops*

Of the 78 shop managers or assistants who were interviewed, 41 were responsible for shops in the Civic Centre, while 37 were responsible for shops in the remainder of the estate.

Overall, there were 3.5 incidents of damage per shop (3.9 incidents in the Civic Centre and 3.1 elsewhere). If these estimated rates of damage were applied to those 20 properties not included in the sample, there would have been about 333 incidents of damage on the estate in the six-month period. These incidents include, of course, a large number of very minor ones, but even so they will be an underestimate. Most respondents did not enumerate, for instance, the vast quantity of graffiti which disfigured their shops. Occasionally respondents were unable to recall precise numbers of incidents and, wherever there was doubt, a cautious estimate has been used. Although the staff of all shops did not follow the same pattern, they tended on the whole to report all serious incidents to the

police, but only a few of the minor ones. In a number of cases, and especially in the Civic Centre, the police would be the first to know about the incidents as a result of their nightly patrols. Almost 15 times as many incidents were reported by the respondents, however, as were included in the police records.

f. Victim survey of schools

Table 2: 2 shows the number of incidents reported in interview by the ten heads of schools.

Table 2: 2

Incidents of damage to schools

	Age of pupils	Incidents	Number of schools	Number of incidents per school
High schools	11-16	87*	3	29*
Junior schools	7-11	80	4	20
Infant schools	5-7	44	4	11
Total		211	11	19

* One high school on the estate was not visited. Since it suffered a high rate of damage, a correction is built into the high school figures in Table 2:2 based on the proportion of total high school damage which the omitted school had suffered according to DWD records.

There were a number of problems connected with surveying schools. Reporting of internal damage varied greatly from school to school and it was not certain whether this reflected actual differences in damage or the willingness of headmasters to report it. The problem could possibly have been avoided if caretakers, and not school headmasters, had been interviewed. External damage, on the other hand, was freely admitted (74 % of the damage reported was said to be external) and the blame generally put on outsiders. It appeared that damage to schools (and also to shops) varied greatly with time: the estimates in Table 2: 2 would probably have been considerably higher had the interviewing taken place in the summer rather than the time of the year selected to correspond with the earlier main sample.

All but one school stated that the police would only be contacted for the most serious cases but that the local authority would be called for all repair work, except very minor damage such as graffiti. The exception was one Roman Catholic school where the repair work was performed by outside agencies with the school claiming reimbursement for a proportion of the costs. Consequently much of the damage to this school would not be recorded in the local authority's records. In fact, overall about two and a half times as many incidents were reported by survey as were included in DWD records, and over 50 times as many as were included in the police records.

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g. Combined results of records and surveys

Table 2: 3 shows the number of incidents of different types of damage as estimated on the basis of survey replies, recorded by various agencies, or included in the police records (some of these incidents overlap).

Table 2: 3

Incidents of damage recorded by agencies and reported by victims

	Victim surveys		Direct Works, Post Office, Parks		Police	
	Number	%	Number	%	Number	%
Shops	333	41			23	36
Schools	211	26	90	22	4	6
Dwellings	206	25	165	41	17	27
Telephone kiosks	5	1	125	31		
Other damage	65	8	22	5	20	31
Total damage	820	100	402	100	64	100

The victim surveys (of shops, schools, and residents concerning their own property) revealed the highest figures - 820 incidents of damage on the estate over six months. If the more accurate Post Office records about telephone kiosk vandalism are included with the survey findings, the number of incidents of damage on the estate over six months would amount to 940. The rate of damage per 10 properties (schools 191.8 incidents, telephone kiosks 78.1 incidents, shops 34.0 incidents, dwellings 0.4 incidents) shows that houses are very much less vulnerable than 'public' property.

The surveys and Post Office records between them revealed some 14 of 15 times as much damage as police records. Compared to offences of criminal damage involving more than £20 which were recorded in the Criminal Statistics at the time of the study, the surveys and Post Office records between them revealed nearly 35 times as many incidents. Obviously police records give a very unreliable picture of the extent of vandalism except, perhaps, for the most costly incidents.

Implications of the findings

A comprehensive measure of vandalism can only be achieved if it is possible to obtain reliable information about the incidents of damage suffered by all types of property in the area. This information can be obtained in three main ways: by personal observation; by using available recorded data (or by inducing people to keep records or improve the ones they have); and by employing surveys of victims.

Personal observation has been used with some success in the study of vandalism on London housing estates (see Chapter 4), and provides a way of accounting for

some highly visible yet minor damage (such as graffiti) which is in the main excluded from agency records. In many cases, however, personal observation is impracticable if large areas are studied and if frequent observations are needed to investigate changes in level of damage over time.

The great advantage of analysing available records is the relative ease with which information can be obtained, but recorded data have various drawbacks. Agencies, such as the Post Office and local authorities, collect information in order to facilitate the administrative processes of their respective organizations and the system is not necessarily geared to the needs of research. Nonetheless, the information about vandalism in these records appears reasonably reliable. Police records, on the other hand, although they have the advantage of covering all types of damage, contain only a small proportion of the vandalism committed. Citizens are normally more concerned to get their property repaired than to initiate processes of investigation which, in all likelihood, will be unsuccessful anyway. Hence they have little motivation to take the time and trouble to report incidents to the police. Moreover, because of difficulties in deciding whether the damage is deliberate (Levine, 1976) or as a result of what McCabe and Sutcliffe (in preparation) refer to as 'cuffing' - i.e. avoiding difficulties attendant upon defining an incident as a crime by ignoring or hiding it - some incidents of 'vandalism' reported to the police may not be entered in their records.

It would seem that one possible solution to the limitations of recorded data would be to encourage agencies to record information more efficiently. This approach, however, may not be so simple, because different agencies may prove unwilling to spend time and resources on an exercise which they may not feel could benefit them.

Because of the limitations of recorded data, these were supplemented initially in this study by a survey of residents in the hope that they would supply a comprehensive and accurate picture of vandalism in the total sample area. Damage to property not belonging to the respondents was, however, considerably underreported and separate surveys of schools and shops were found to be necessary. The results of these (together with the results of asking residents about vandalism to their own dwellings) show that where the interviewee has experienced the problem at first hand, surveys can be of considerable help in measuring vandalism, in that many incidents of damage were reported in this way which were not recorded in official records.

An alternative way of measuring vandalism might be to ask a sample of residents to record in diaries, as they occur, details of all incidents of damage which they witness over a certain period. Although this approach would not avoid all inaccuracies (minor incidents may be overlooked, certain types of property may be rarely seen, and respondents may forget to fill in the diaries) it could be an improvement on the retrospective survey which is so dependent on respondents' ability to recall events.

In general, then, all techniques for measuring vandalism have limitations either

in accuracy or comprehensiveness, and the techniques chosen should be those that best suit the purpose of the data collection. It would seem that police records provide neither an unbiased estimate of the various types of vandalism nor a satisfactory estimate of the total amount. Again, while survey and diary techniques using samples of residents may provide a good estimate of dwelling damage, they are costly (because low rates of victimisation would necessitate large samples) and may not always be necessary. It would seem possible, on the basis of the present study, to measure vandalism satisfactorily in public housing areas by using Post Office and local authority records, supplemented by small surveys of shops and schools.

However, local authority records of vandalism, although they were very useful in this study, may not always exist or be sufficiently reliable and will not of course be relevant for owner-occupied estates. In other areas, too, where there may be different types of vulnerable property, other specialized surveys may be needed (e.g. of industrial or commercial property).

This study, by showing that only a small proportion of vandalism incidents appear in the Criminal Statistics and by revealing the limitations on the usefulness of other agency records, illustrates the distorted picture of vandalism the public is likely to get. The type of incidents recorded by the police, for instance, would not accurately reflect the pattern of vandalism on the estate in this study, in that telephone kiosk and school damage, and most of the everyday minor incidents are under-recorded. In fact, vandalism comprises a very large number of often rather trivial incidents - given no place in the records of many local authorities, let alone those of the police - which only in aggregate become a serious problem. For people living in areas with more than their share of vandalism and for those responsible for property there, the problem consists by and large of numerous but individually unimportant incidents which add up to a costly and irritating problem, rather than the sort of serious or spectacular criminal damage which may appear in Criminal Statistics or invites the attention of the media.

3 Vandalism amongst Adolescent Schoolboys (by F J Gladstone)

TACKLING VANDALISM

Aims and methods

Vandalism is generally seen as the work of adolescent males and official statistics of crimina, damage are certainly consistent with such a view. Sixty per cent of people convicted or cautioned for criminal damage are aged 10-20 and when the size of the age-groups at risk is taken into account the disproportionate representation of adolescents is striking: the rate of known offenders among adolescents is over six times greater than among adults. The highest rate is among the 14-16 year olds and nine out often of these offenders are male.[1]

There are, however, questions for which no ready answers can be found, either in the official statistics or elsewhere. In particular, many people find vandalism a perplexing phenomenon and want to know what it is that induces young males to engage in activities so seemingly pointless and irrational. But other questions are also important: is vandalism, for example, widespread among young males or is it an activity confined to a small, atypical minority? How does it relate to other offending: is it just one aspect of a wider syndrome or is it unrelated to other forms of delinquency? And if it is possible to pinpoint a distinct sub-group of boys particularly involved in vandalism, how do they differ from their more conforming contemporaries ?

There are, of course, a number of ways in which the attempt to explain involvement in vandalism might be approached. According to theoretical orientation, the causes of destructive behaviour might be sought in early childhood experiences, in the possession of certain personality traits or in particular social and political features of our society. These differing perspectives are not, of course, necessarily incompatible and a comprehensive explanation might need to take account of all of them. But in practice such a counsel of perfection is unhelpful - for the purposes of empirical research some selection of explanatory concepts is unavoidable. In the present study the choice of independent variables was influenced by the theoretical stance of the programme of research as a whole. So, for instance, as was explained in Chapter 1, there seemed to be limited explanatory potential in personality factors. Additional constraints were imposed by the research method used. In order to obtain a reasonably reliable measure of the extent of vandalism among adolescent boys, it was necessary to use a self-administered questionnaire completed during school hours by a large sample of boys. But information about certain subjects, such as early upbringing or parental income, cannot be reliably obtained in this way. Attempting to obtain information about certain other topics, such as family relationships, might have jeopardized the co-operation of schools and pupils. Consequently it was decided to limit the variables investigated to ones concerned with friendships, parental discipline, and attitudes to school and leisure, all of which have been seen by theorists as important 'here-and-now' influences on adolescent behaviour.

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[1] Criminal damage figures are derived from *Criminal Statistics (England and Wales) 1975* (London: HMSO) and the sizes of age groups are derived from the *A nnual A bstract of Statistics, 1976* (London: HMSO).

The self-report approach

In the earliest studies of delinquency convicted delinquents were compared with non-delinquents' in order to identify distinguishing characteristics. This approach, however, was thrown into question by a number of studies such as those of Robison (1936) and Porterfield (1943) and it is now generally accepted that the delinquent who appears in court is not necessarily typical of the juvenile law-breaker in general in which case explanations based on those attributes which distinguish him from his peers at large may tell us more about how society reacts to law-breaking than about the causes of delinquency. The 'self-report' approach, pioneered by Short and Nye (1958), gets round this problem by examining the activities of samples of the general population of young people regardless of whether they are known offenders. In this approach, individuals making up a representative sample of, for example, adolescent boys are asked to report how often, in a given time period, they have committed particular offences.

The extent to which confidence can be placed in the results of this 'confessional' approach depends on the honesty of the respondents who may, of course, feel they are placing themselves at risk by admitting to undetected offending. To mitigate such fears the confidentiality of individual responses is guaranteed in most self-report studies and further reassurance is usually attempted by preserving the anonymity of the respondents. Two studies in America have attempted, using ingenious methods, to investigate the validity of responses. Clark and Tifft (1966) gave the same checklist twice, using a lie-detector the second time. They report that 92 % of the original responses were honest and that of the remainder concealment was three times more likely than exaggeration. Gold (1970), whose respondents did not remain anonymous, compared self-reports with accounts of respondents' behaviour obtained from 'informers' and found that 17 % of his sample concealed or forgot some of their offending. No validity check was attempted in the present study: the boys taking part appeared, in general, greatly reassured by the condition of anonymity but concealment by some individuals and exaggeration by others is probably inevitable in a study of this kind.

Sample and procedure

The sample studied consisted of 584 boys,[1] aged 11-15, representing a cross-section of those attending maintained secondary schools in a Northern city, chosen because it was generally recognized as suffering a high incidence of vandalism. Girls were excluded, partly because of the need to keep down the sample size, and partly because, as noted above, official statistics suggested girls are much less likely to be involved, an inference confirmed by evidence from several self-report studies (Gold, 1970; Wise, 1967; Hindelang, 1971; Jensen and Eve, 1976) although there is recent conflicting evidence from Campbell (1977).

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[1] 605 boys took part but 21 of the questionnaires had to be discarded because of missing information.

TACKLING VANDALISM

The sample was obtained as follows: a complete list of classes in the cities' schools was stratified by age (11-131/2 versus 131/2-15), by whether the school was Roman Catholic or secular, and by whether it was selective or non-selective; this gave an 8-fold classification. Classes in non-selective schools were further stratified into four groups according to the level of deprivation of the schools' catchment area using census data and additional information obtained from the local planning department (classes in selective schools could not be stratified in this way because the schools' catchment areas were city-wide). Classes were randomly selected from each of the cells in the resulting 20-fold classification so as to yield a stratified cluster sample of the desired size. (The size of the sample was determined by the need to achieve statistically significant and representative relationships.) Thirty-eight schools were visited in all, some more than once. A letter from the Director of Education was sent to all parents asking them to inform the school if they did not wish their son to take part in the study. Only five refusals were received.

The questionnaires consisted of a variety of questions covering use of leisure time, parents' attitudes, the type of groups to which boys belonged and the boys' attitude to school and his self-perceptions followed by a number of questions concerning involvement not only in vandalism but also in theft, aggressive behaviour and indiscipline at school. A pilot study, using a separate sample of 112 boys, was undertaken to test and modify the initial questionnaire.

The questionnaires were completed during a period of 6 weeks during June-July 1973. The questions relating to delinquent involvement were of the form 'how often since Christmas have you . . .'. The time period being investigated was therefore six months plus or minus three weeks. Using Christmas as a reference point would, it was felt, help to overcome the memory problems arising from a question of the form 'how often in the last 6 months...'. The questions were pre-coded: the boys ticked one of four boxes - 'never', 'once', 'two or three times', or 'more than three times'. Completion of the questionnaires was supervised by the researcher with no teachers present. The session began with a discussion in which the purpose of the study was explained and emphasis laid on the conditions of confidentiality and anonymity. A few boys had difficulty reading some of the questions and they were helped by the researcher. Most of the boys appeared to enjoy the session and this impression is borne out by responses to the open-ended question, 'What do you think about this questionnaire?'. Eighty-one per cent of responses expressed a positive attitude and only 8 % were negative.

Extent of involvement in vandalism and other delinquency
What sort of answer is given to the question of how far vandalism is widespread among adolescent school boys depends on what is counted as vandalism. There were few boys who denied any involvement in destructive behaviour and the more serious acts of destruction, though less prevalent, were not uncommon. Table 3: 1 gives an idea of the range of involvement among the boys studied *(see overleaf)*.

Table 3:1
The prevalence of vandalism

1. Scratched desk at school	85%
2. Broken a bottle in the street	79%
3. Broken a window in an empty house	68%
4. Written on walls in the street	65%
5. Broken trees or flowers in a park	58%
6. Written on the seats or walls of buses	55%
7. Broken the glass in a street lamp	48%
8. Scratched a car or lorry	42%
9. Smashed things on a building site	40%
10. Broken a window in an occupied house	32%
11. Broken the glass in a bus shelter	32%
12. Damaged park building	31%
13. Broken furniture at school	29%
14. Broken a window in a public toilet	29%
15. Broken the glass of a telephone kiosk	28%
16. Broken a car radio aerial	28%
17. Damaged the tyres of a car	28%
18. Broken a window at school	27%
19. Slashed bus seats	22%
20. Broken a seat in a public toilet	20%
21. Damaged telephone in a kiosk	20%
22. Put large objects on a railway line	19%
23. Broken a window in a club	16%
24. Slashed train seats	12%

(Percentages refer to the proportion of boys who admitted to having committed the specified act at least once in the previous six months)

It would appear that such acts as breaking a bottle in the street or a window in an empty house are so common as to be more or less normal behaviour, at least in the city where the study took place. And if such acts are counted as vandalism then nearly all the boys were 'vandals'. Most of the destructive behaviour involved only a minority of the boys, however, so that although it is important to recognize that between the occasional bottle smasher and the persistent wrecker lies a continuum of involvement rather than a moral gulf, there is none the less reasonable ground for making some sort of distinction between 'petty' and 'serious' vandalism even if any cut-off point is bound to be somewhat arbitrary.

Development of a measure of vandalism
Subsequent analysis required a summary measure of vandalism and a 'factorial scale' (see Oppenheim, 1966) was constructed by the following procedure. Responses to 24 questions (see Table 3:1) about involvement in vandalism were subjected to Principal Components Analysis and a major factor, accounting for 68 of the variance was extracted. Factor scores were calculated for each of the boys yielding a continuous scale on which a boy's position was a product both of the range of his involvement in different types of vandalism and of the frequency with which he was involved.[1] On the basis of this scale the boys were classified as

  Problems can arise with such a scale where frequency and range of involvement diverge widely: for the present sample, however, this was not found to be the case.

having 'low', 'medium' or 'high' involvement in vandalism, each of which categories incorporated approximately one-third of the sample. Thus the 'low' categories subsumed that third of the boys who admitted little or no involvement in vandalism. Only 22 boys out of the 197 in this group denied any destructive behaviour whatsoever, but among the rest involvement was very infrequent and confined to such activities as scratching their desk at school, writing on walls or breaking a bottle in the street. Those boys who fell into the 'medium' involvement category were more frequently involved in a wider range of 'petty' vandalism and some were occasionally involved in more serious vandalism such as breaking the glass in a bus-shelter. The 'high' involvement category represents that third of the sample most involved in vandalism both in terms of frequency and seriousness. These are the boys who smash up 'phone-boxes, slash bus-seats and so forth, as well as being heavily involved in the more petty activities.

Relationships to other delinquency

Various statistical measures (principally Factor Analysis and Cluster Analysis) were used to examine how far vandalism was a specialized activity engaged in by different boys from those involved in other offending. There was little evidence of any such specialization: involvement in vandalism, it seems, is closely linked to involvement in other forms of delinquency.

Thus, for example, a factorial scale of theft was developed in the same way as the vandalism scale already described. The correlation between the two scales was 0.76 (Pearson's r). In general, it appeared that the more a boy confessed to vandalism the more likely he was to admit other delinquency. Thus the boys who fell into the 'low' category of vandalism admitted, at most, occasionally evading paying on the bus. The 'petty' vandalism of those who fell into the 'medium' category is part and parcel of a wider syndrome of 'mischief' which includes ringing a bell and running away, petty shoplifting and 'cheeking' adults. More serious activities such as dialling '999' for a joke, stealing from cars, or breaking into houses and shops were by and large confined to boys who fell into the 'high' category of vandalism. (A few boys, only 2 % of the sample, appeared to specialize in theft and burglary and admitted relatively little vandalism. The numbers were too small, however, to permit further analysis of any reliability.)

There seems, then, little support for any sharp distinction between vandalism and other forms of juvenile delinquency. The evidence suggests rather that vandalism is merely one expression of a general disposition to become involved in delinquent activity.

Dem ographic factors

Within the rather narrow age range sample (11-15) there was no indication that either younger or older boys were relatively more involved in vandalism. There was, however, some evidence of a link between involvement in vandalism and social class. Among boys whose fathers' jobs were classified as unskilled or semi-skilled (using the Registrar General's classification of occupation), 42 %   reported

a high involvement in vandalism as against 30% of those with higher status fathers (X^2=5.85; ldf; p <.05). No significant difference was found between the sons of manual and non-manual skilled workers. In the area studied, upper-middle class families mostly live in suburbs outside the city boundaries and as a result the sample contained rather few (40) boys whose fathers were classified as professional/executive workers (social classes I and II). Such boys were less likely to say they had committed vandalism than other groups but because of the small numbers the difference was not statistically significant. This weak tendency of involvement in vandalism to be related to social class is in line with most self-report studies of delinquency. Bytheway and May (1971), reviewing both English and American studies concluded that 'a small, but real, negative association exists between the social status of fathers' occupation and self-reports of ad-mission and various degrees of involvement in delinquent behaviour by boys'. The adequacy of fathers' occupation as a proxy for the social class of a family is often questioned, however (see, for example, West and Farrington, 1973) and, in principle, measures of social class which take into account other factors such as length of education, the mother's background and income might reveal more marked differences - although the evidence reviewed by Rutter and Madge (1976) does little to encourage such an expectation in practice.

The extent to which the type of schools boys attended affected their involvement in vandalism was also examined. No significant differences were found between boys attending Roman Catholic and secular schools nor between those at com-prehensive and secondary modern schools. However boys at selective schools admitted somewhat less vandalism than those at non-selective schools (x^2 =12.7; 2df; p <0.01). But the difference was not very marked (27 % of boys at selective school admitted 'high' involvement as against 35 % of those elsewhere) and it would appear that the incidence of vandalism does not differ greatly by school types.

Vandalism and the peer group

Economic gain is usually seen as the motive of crimes against property such as theft or fraud. What profit there could be in destruction is more obscure, how-ever, and to many people vandalism seems a singularly pointless, gratuitous activity. On some occasions vandalism may, in fact, be economically motivated for, as Cohen (1968) has pointed out, damage to property can resultfrom attempts to acquire money or property as when a slot machine is broken into or lead strip-ped from buildings. In other cases damage may be the means of gaining revenge. But activities such as smashing the glass in a bus-shelter are not easily explained in terms of gain or revenge. To understand their attraction it is necessary to consider the context in which they take place.

It is well established that most juvenile delinquency is carried out in groups rather than alone and this appears to be particularly true for vandalism (Hinde-lang, 1976). Large, organized 'gangs' appear to be rare in Britain, however, and often the groups are little more than a handful of friends who hang around the

streets together (Hood and Sparks, 1970). But although most juvenile vandalism appears to occur in groups, this does not mean that all groups generate vandalism to the same extent; indeed, some groups on the streets may not be involved at all. This raises the question of whether there is a type of group particularly prone to vandalism and here the Opies' fascinating studies (1959, 1969) may provide a clue. They show how games of daring in which 'the faint-hearted are goaded into being courageous and the foolhardy stimulated to further foolhardiness' are popular among adolescent boys. It is not difficult to see why this should be so: the need to achieve adult identity must render any opportunity to display fearlessness attractive to the average adolescent boy given that courage holds such a central place among the expectations governing the male sex-role in our culture. As the Opies aptly put it 'The glory he sees in danger is that it seems to be linked somehow with his becoming mature'. The Opies do not include vandalism among the games of daring they discuss but the work of Wade (1967) indicates that (in America at least) much adolescent vandalism resembles in many ways the games they do describe:

> The dare to commit the act of vandalism ... functions as a device to measure the boy's courage and manliness before the critical audience of his peers.... Usually the dare is reinforced by an epithet in current vogue among juveniles. The one most often used is "chicken"... the appellation is taken seriously by the adolescent. It is a threat to his status in the eyes of his peers.'

It would seem a reasonable hypothesis, therefore, that the motive for much adolescent vandalism is a boy's desire to maintain or enhance his status among his peers.[1] And as a means of gaining status vandalism has certain advantages over more conventional activities. If one boy gains prestige by breaking a window this does not mean that the rest of the group must inevitably lose prestige for, like hunting and fishing, the vandalism does not require losers, only victims. (Of course huntsmen, anglers and vandals may be unsuccessful; but the point is that they do not have to fail whereas in ping-pong, for example, the very rules of the game require a loser). In the language of the mathematical theory of games (Von Neumann and Morgenstern, 1953) vandalism is a 'non-zero-sum' game whereas most of the status contests available to adolescents allocate prestige on a 'zero-sum' basis - fists fights, for example, create as many losers as winners. In short, vandalism may be attractive not only because it provides a 'game' in which a boy can prove his manhood but also because this 'game' is one at which every boy can succeed.

[1] This may well be true, not only of vandalism but also of adolescent theft, which at first sight might appear to be economically motivated. Belson (1975), in his study of juvenile thieves in London, found that, more often than not, a boy said he stole 'to be accepted as one of the group, to gain prestige, show off, look big', or 'because he was dared, taunted or challenged'. That a boy's purpose, in engaging in adolescent delinquency, may be to prove his masculinity also goes some way towards explaining the apparently low involvement of girls. A display of toughness, after all, is no way to demonstrate femininity. Not that girls are necessarily wholly innocent - their presence in a tough group could well spur the boys to increased delinquent activity.

Types of street group

One way of testing the validity of this hypothesis is to examine the relationship between vandalism and group membership. In the present study association with a group was found to be quite common: 59 % (346) of the boys studied said they often went out in a group. These boys were asked a number of questions about what was important in the group they went around with. Analysis of their replies (using Principal Components Analysis with Varimax rotation) indicated that the groups could be classified in four ways according to how far they valued:

(1)' Toughness' (important to be a good fighter, not to be a coward, not to be afraid to take risks, not to cry if hurt, to be tough, to be a dare-devil, not to back out of a fight).

(2) *'School achievement'* (important to do well at examinations, to like school, to be brainy, to be successful at school, to want to get on in life).

(3) *'Considerateness'*(important to be kind, polite, helpful, friendly).

(4) *'Precocity'* (important to be a success with girls, to be 'with-it', to know all about pop music, to dance well, to keep up with the fashions, dress smartly).

Table 3: 2 shows that it is not membership of a group as such which promotes vandalism but only membership of a 'tough group': boys who often went out in groups in which it was important to be tough were much more likely to admit involvement in vandalism. Boys who belong to groups in which it was not important to be tough did not admit significantly more vandalism than boys who seldom or never went out in a group (X^2=0.73; 2df; NS).

Table 3: 2
Involvement in vandalism by group membership

Reported involvement in vandalism	*Boys seldom orneverin a group*	*Boys in groups: Toughness not important*	*Boys in groups: Toughness important*	*All boys*
low	*50%*	46%	12%	34%
medium	31%	34%	36%	34%
high	19%	21%	*51%*	33%
Total (=100%)	n=238	n=101	n=245	n=584

X^2=103.1;4df; P < .00l

The boys were also asked whether they saw themselves as tough or gentle. Of the 245 who did see themselves as tough 57 % belonged to a 'tough group', but of the 339 who saw themselves as gentle most (69 %) either did not belong to a group at all or belonged to one where toughness was not important. This may indicate that many boys do not associate with a 'tough group' because they are temperamentally unsuited, but there is something of a chicken-and-egg problem and it may be that boys come to see themselves as tough only as a result of association with a 'tough group'.

TACKLING VANDALISM

These findings lend support to the suggestion that vandalism, far from being a purposeless activity, may often serve as a means of status-promotion within a 'tough group'. They do not, of course, exclude the possibility that vandalism may be committed for still other reasons - e.g. excitement and relief from boredom - or simply be the side-effects of play. But they do underline the importance of long hours on the streets with delinquent associates.

Parenting and conformity

It is obvious that the style of child-rearing practised by a boy's parents will generally have far-reaching effects on his conduct. Those who attempt to secure their sons' conformity may adopt either or both of two fundamentally different tactics. They may try to control his movements so that he rarely encounters temptation not to conform (extrinsic control). Alternatively, or in addition, they may attempt to inculcate inner resistencies to temptation (internalized control). There is evidence from research, mainly in America, that such attempts whether through extrinsic control (e.g. Glueck and Glueck, 1950; Wilson, 1974) or by internalization (e.g. Nye, 1958; Hirschi, 1969) can be effective in securing conformity. There has been little investigation in this country, however, as to the proportion of parents who attempt to secure their sons' conformity, how far they are successful and whether the prevalence of such attempts varies by social class.

Extrinsic control

Almost half the boys (48%) said their parents were strict about their hanging around the streets; only 22 % of such boys fell into the high vandalism category compared with 42 % of those whose parents gave them free rein. Extrinsic control was only effective, however, if the boys did in fact spend relatively little time on the street. Table 3: 3 shows that among boys who spent long hours on the street those with strict parents were not significantly less likely to admit involvement in vandalism than those whose parents were not strict.

Table 3: 3
Involvement in vandalism by parental supervision of movement,
controlling for time spent on street

Reported involvement in vandalism	Average number of hours spent on street per evening				All boys
	Less than 3		3 or more		
	Parents' attitude to son 'hanging around the streets'		Parents' attitude to son 'hanging around the streets'		
	Strict	Not Strict	Strict	Not strict	
low	57%	41%	18%	11%	34%
medium	32%	30%	36%	37%	34%
high	11%	29%	47%	53%	33%
Total (=100%)	n=190	n=129	n=90	n=175	n=584
	x2=18.3;2df;p<.001		x2=2.6; 2df; NS		

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As might be expected, boys whose parents did not disapprove, were more likely to spend long hours on the street (58 % said they spent 3 or more hours on the street per evening on average against 32 % of boys with strict parents). Nonetheless a considerable proportion (42 %) did not take advantage of this freedom and preferred, it seems, to stay at home most of the time.[1]

This raises the question of whether the similar proportion (i.e. 42 %) of boys with strict parents would not also stay at home unbidden even if their parents were not strict. This issue is of some importance: only about two out of three boys with strict parents are obedient and if as many as 42 % would stay at home anyway, it would appear that with boys who want to go out attempts at control fail more often than they succeed. It may be, however, that parents do not need to be strict with boys who do not wish to hang around the streets. If so, the proportion of boys with strict parents who would stay at home unbidden could be rather less than 42% but it seems implausible that all the boys with strict parents would want to roam the streets if they were allowed.

In short, therefore, it would appear that, among boys who want to roam the streets, attempts by parents to stop them will fail in the case of at least one boy in three and probably more often. Thus extrinsic control, although in principle effective, is not, it seems, very easy to achieve.

Internalized controls
Among the boys whose parents let them roam the streets at will there were some (37%) whose parents disapproved of them 'going around in a gang'. Only 23% of such boys fell into the 'high' vandalism category compared with 53 % of the rest. In part this would appear to be because they heed their parents: 60% of them seldom mixed with a 'tough group' as against 43 % of boys whose parents did not disapprove of 'gangs'. But even among boys who did mix with a tough group those with disapproving parents were much less likely to admit to high involvement in vandalism though not a great deal more likely to claim low involvement (see Table 3: 4). It appears, then, that moral exhortation can take effect both by inhibiting entrance to the 'tough' group and by inhibiting full participation inside it. But as with attempts at extrinsic control, the success rate is not impressive.

It should be noted that the evidence presented here derives from the boys' perceptions of their parents' attitudes and that these perceptions may not always be an accurate reflection of the attitudes actually held by their parents. From the point of view of explaining their involvement in vandalism this is not a disadvan-

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[1]Why this should be so is unclear. It may be that the homes of these boys provide more stimulation or it may be a matter of temperament - Trasler (1962) and Eysenck (1964) have suggested that introverts are less likely to become involved in delinquency but support for this proposition has been equivocal (e.g. Cochrane, 1974). West and Farrington report that boys assessed by psychiatric social workers as 'nervous-withdrawn' were less involved in delinquency, concluding that 'other things being equal it seems that a shy, timid temperament tended to prevent a boy becoming a delinquent'. It is tempting to conjecture that boys who are timid or shy are not necessarily introverted and it is timidity rather than introversion which produces conformity - but clearly the matter is in need of further study.

tage, however, since where such discrepancy exists it is the attitudes a boy believes his parents to hold rather than their actual attitudes which will affect his be. haviour.

Table 3:4
Involvement in vandalism by parents' attitude to 'gangs', controlling for association with 'tough' group (among parents who do not try to control son's time spent in streets)

	Boy associated with a 'tough' group-				All boys
	Seldom		Often		
Reported involvement in vandalism	Parents' attitude to son 'going around in a gang'		Parents' attitude to son 'going around in a gang'		
	Strict	Not strict	Strict	Not strict	
low	51%	29%	14%	7%	24%
medium	34%	31%	50%	29%	34%
high	15%	40%	36%	64%	42%
Total (=100 %)	n=67	n=83	n=44	n=100	n=304
	X2=12.7;2df; p<.01		X2=9-5; 2df; p<.01		

Strictness and social class

A rather tenuous relationship was found between parental strictness and social class as measured by father's occupation (using the Registrar General's classification). Among boys whose father's occupation was rated as unskilled or semi-skilled 53% reported that their parents disapproved of them 'hanging around the streets' or 'going around in a gang' or both compared with 65 % of boys with higher status fathers (X2=7.2; df; p <0.01). No significant differences were found between manual and non-manual workers and it does not appear that, in the cities studied at least, social class (as measured by father's occupation) is a major determinant of whether or not parents are strict.

'Broken'homes and working mothers

The boys were also asked about who was resident in their homes. Boys coming from single-parent households (11 %) were not more likely to be involved in vandalism, indeed they admitted, if anything, somewhat less vandalism although the difference was not statistically significant.

About a third of the boys reported that their mother did not have a job, 39% said that she worked part-time and 25 % full-time. But boys with working mothers did not appear to be more involved in vandalism than other boys nor did the amount of time a mother worked appear to affect involvement.

Vandalism and schooling

Research into the relationship between juvenile delinquency and schooling has found, almost without exception, that delinquents are particularly prone to dislike school and to be academically unsuccessful (e.g. Hargreaves, 1967; Belson, 1975). Evidence from an American study of vandalism to schools (Goldman, 1961) suggests that vandals are similarly placed. Goldman compared schools subject to high and low rates of damage and found that the pupils of highly damaged schools were relatively uninterested in academic work and more likely to dislike their schools than pupils of less damaged institutions.

On the face of it, then, it seems reasonable to expect that boys involved in vandalism would tend to dislike school and to be relatively unsuccessful academically. It is not clear, however, to what extent dislike of school and low achievement are simply two aspects of the same thing. Given the importance set on academic achievement by most schools it is plausible that, other things being equal, the low achiever will find life at school relatively unrewarding and consequently regard the experience with something less than enthusiasm. Yet secondary schools vary considerably in how they approach the problem of differential achievement. High and low achievers are frequently segregated into separate streams, but in an increasing proportion of schools they are taught together in mixed ability classes. Where schools are streamed, the less able pupils may receive a simplified version of the predominantly academic course pursued by the more able, or their curriculum may be slanted towards more practical studies. Differences such as these may have considerable effect on the extent to which academic failure results in dislike of school.

It is dubious, moreover, whether academic success can be regarded as a sufficient condition for a positive attitude to school. A high achiever may, for example, dislike his teachers or the methods of discipline used in his school. The possibility that low achievement and dislike of school do not go hand in hand raises the question of whether it is the one rather than the other which is importantly related to vandalism (and other delinquency).

Low achievement and dislike ofschool

Among the boys, as anticipated, lack of success at school appeared to be associated with involvement in vandalism: of those who saw themselves as 'not successful at school', 41 % fell into the high vandalism category compared with only 22 of those who saw themselves as 'successful at school'. Those who saw themselves as successful at school were also much more likely to see themselves as good at exams, to intend to stay on at school after 16, and to aspire to a white-collar job.

It was also confirmed that low achievers tended to be relatively unenthusiastic about school; 69 % of boys who saw themselves as unsuccessful disliked school, compared with 44% of those who saw themselves as successful. It is not surprising, therefore, to find that boys who said they disliked school were relatively more

likely to admit involvement in vandalism. But the significant issue is whether dislike of school is associated with vandalism when achievement is taken into account. This does, in fact, appear to be the case (see Table 3 : 5). Among boys who were successful, those who nonetheless disliked school were more likely to admit involvement in vandalism; the same was true among boys who were unsuccessful at school. Thus a negative attitude to school would appear to be associated with vandalism regardless of academic success or failure.

Table 3: 5

Involvement in vandalism by attitude to school, controlling for achievement

	Self-perceived school achievement				
	Successful		*Unsuccessful*		
Reported *involvement* in vandalism	*Attitude to school*		*Attitude to school*		*All boys*
	Likes school	*Dislikes school*	*Likes school*	*Dislikes school*	
low	55%	24%	40%	23%	34%
medium	30%	44%	34%	30%	34%
high	15%	32%	26%	48%	33%
Total (=100%)	142	113	102	227	584

$_x2=26.3$ **;2df; p<.001 X2 = 16.8; 2df; p<.001**

Although boys who dislike school are relatively more likely to admit involvement in vandalism it does not necessarily follow that dislike of schools actually induces vandalism. A positive attitude to school is more likely if a boy's parents value education and it could well be that such parents tend also to be those who try to keep their sons out of trouble. Vandalism and dislike of school may be related only because both result from a particular style of parenting. If this were so one would expect that the relationship should disappear, or at least be weakened, if differences in parenting were allowed for.

Scant support for such a hypothesis was obtained, however. The relationship between vandalism and dislike of school was only slightly weakened when parental supervision was allowed for, i.e. boys who disliked school were more likely to admit involvement in vandalism than those who liked school whether or not their parents disapproved of them hanging around the streets (see Table 3 : 6). The same was found for parents' attempts to discourage their son from associating with a 'gang'. Another possibility is that membership of a 'tough group' leads both to vandalism and to dislike of school but this hypothesis also received little support.

So far as the evidence goes it would appear, therefore, that the association between vandalism and dislike of school is not fortuitous although the possibility cannot be discounted that further investigation might qualify such a conclusion.

Table 3: 6
Involvement in vandalism by attitude to school, controlling for parental supervision of movement

Reported involvement in vandalism	Parents' attitude to son 'hanging around the streets'				All boys
	Strict		Not strict		
	A ttitude to school		A ttitude to school		
	Likes school	Dislikes school	Likes school	Dislikes school	
low	57%	32%	38%	16%	34
medium	32%	34%	32%	35%	34
high	10%	33%	30%	49%	33
Total (=100%)	134	145	110	195	584
	$x^2 = 26$-0; 2d f; p < -001		X2=20-9; 2df; p < -001		

Summary of results

Analysis of questionnaires completed by nearly 600 schoolboys aged 11-15 suggested that relatively petty vandalism, such as breaking a bottle in the street or breaking a window in an empty house, was very widespread: three out of four boys admitted committing such acts at least once in a six-month period. More serious involvement in vandalism, such as damaging phone-boxes, public toilets or bus seats, although less prevalent was not uncommon: about one in four boys admitted to such acts in the period. However, the city where the study took place is believed to have a more serious problem of vandalism than even most other large cities in Britain so that, among adolescent schoolboys elsewhere, involvement in vandalism may be less widespread.

The more a boy was involved in vandalism, the more likely he was to be involved in other forms of delinquency as well, especially theft. Indeed, as has been touched upon at various points above, the factors found to be associated with vandalism have also been found important in studies of delinquency in general and this suggests that, so far as disposition to offend is concerned, explanations of vandalism might be subsumed within a general theory of delinquency causation. It is important to remember, however, that only a fairly limited set of variables about the boy, his home, his friends and his school were included in this study. It is also worth bearing in mind that the empirical relationships reported here are not in themselves causal links but only correlations and that correlations are, in principle, susceptible to any number of interpretations; consequently the explanations advanced here should be considered provisional, although so far as possible the more obvious competing accounts have been examined and discounted. From what the boys said involvement in vandalism was related at most rather tenuously to: age (within the rather narrow age-range sample), father's occupation, working

mother, 'broken' home, or type of school attended. A number of other more immediate situational factors were identified, however, which appeared to have a greater effect on the likelihood of a boy engaging in destructive behaviour.

Boys seem much more liable to become highly involved in vandalism if they spend relatively little of their free time at home with their families. This appears to be primarily because boys who spend long hours hanging around the streets generally do so in the company of a group in which it is important to be tough. It seems likely that within such groups vandalism provides a 'game of daring' whereby a boy can demonstrate his toughness and so maintain or enhance his prestige in the eyes of his companions.

The extent to which boys spend long hours on the street and associate with a 'tough' group appears to be influenced by the attitudes of their parents. Parents who attempt to limit the time their sons spend hanging around the streets or who warn them off "tough' groups can prevent involvement in vandalism but such efforts are by no means always successful.

Involvement in vandalism is also related to a boy's experience at school. Few boys highly involved in vandalism are successful at school work - most of them are 'low achievers' who intend to leave school at the earliest opportunity. But attitude to school is also important: 'low achievers' are much less likely to be involved in vandalism if they like their school.

Long hours on the street in the company of a 'tough' group, lax parenting and negative experiences at school all appear to increase the probability that a boy will become involved in vandalism. Some of the inter-relationships between these adverse influences are illustrated in Table 3: 7 which shows the cumulative effects of three variables representative of the main relationships identified - lack of parental control of movement, dislike of school and association with a 'tough' group.

Table 3: 7
Cumulative effect of three adverse characteristics

	Lax Parents	Dislikes school	Associates with 'tough' group	% Highly involved in vandalism		Total
No adverse characteristic	0	0	0	6%	(6)	103
1 adverse characteristic		0	0	19%	(12)	63
	0		0	20%	(17)	87
	0	0		25%	(8)	32
2 adverse characteristics			0	36%	(31)	87
		0		46%	(21)	46
	0			53%	(31)	58
3 adverse characteristics	+	+	+	60%	(65)	108

It is apparent from the table that each adverse characteristic makes some in-dependent contribution to increasing the likelihood that a boy will be highly in-volved in vandalism and that the more adverse characteristics a boy possesses the more at risk he becomes. Only 6 % of the boys with no adverse characteristic were highly involved in vandalism compared with 60 % of those with all three. Thus the combined effect of the adverse characteristics is to increase some ten-fold the probability that a boy will be highly involved in vandalism.

Implications for prevention

Some of the more general implications of this study are taken up in Chapter 5. It is worth examining here, however, the more direct implications by considering how far there might be scope for extending parental control, increasing attach-ment to school or reducing the number of boys who spend long hours on the streets in the company of a 'tough' group.

Parenting

It is not easy to see how reductions in vandalism could be achieved by attempts to make parents exercise greater control over their sons. Although a considerable minority of parents make little effort to supervise their sons' activi-ties, even among those who do try, the success rate is unimpressive - not all boys will do what they are told and parental sanctions are limited. Even the most ex-treme sanction available to parents - physical chastisement - becomes increasingly impractical as the boy grows larger. Thus even if those parents who make no effort could be persuaded to begin, the chances are that many would fail. In any case it is difficult to identify any promising tactics whereby lax parents might be induced to take action: advertising campaigns enjoy much support but there is little good evidence as to their effectiveness (e.g. Cohen, 1968) and they may even be counter-productive (Home Office, 1975).[1] It is even harder to see what could be done to increase the effectiveness of the efforts of those who try but fail.

Schooling

With regard to schooling the outlook appears somewhat brighter. There can be little doubt that those responsible for the more serious forms of vandalism and delinquency tend to be low achievers, academically, and to dislike school. It does not follow, however, that schools should in any measure be blamed for juvenile offending: not all children are equally easy to teach and, as Farrington (1972) and others have shown, schools with high delinquency rates are often those whose in-takes contain an unusually high proportion of 'difficult' boys. Marked differences between schools often persist even after allowing for differences in intake, how-ever (Gath et al., 1975; Yule and Rutter, 1976), and the reason for this may well

An anti-vandalism advertising campaign, financed by the Home Office, directed at both parents and children, ran in the Granada television area in the spring of 1978. Evaluation of this campaign, currently being conducted by the Home Office Research Unit and by Research Bureau Limited, should provide useful evidence on the effectiveness of television publicity.

be that schools differ in their capacity to succeed with 'difficult' boys. Certainly schools can change without changing their intake: Clegg and Megson (1968) have presented a case study showing how a school's delinquency rate was substantially reduced in a short space of time by a new headmaster with a new policy and many local education authorities can cite similar examples of what might be called the 'new broom effect'. As Mays (1970) has observed, it seems that schools where 'a kind of war between staff and pupils produces a "blackboard jungle" tradition can be transformed by radical changes in organization and a new spirit of good-will emanating from the head downwards'.

But such 'transformations' may depend on special circumstances and given that educational experience is only one among a number of factors affecting juvenile offending it might be unduly optimistic to expect that even substantial educational improvements would necessarily achieve a dramatic reduction in vandalism and delinquency in general. But the situation may be different with regard to vandalism directed at the school itself since this may well be an expression of dislike of the school by some of its pupils. Certainly Goldman (1961) has shown that in some cases schools which had high rates of pupil delinquency nevertheless experienced little vandalism to the school itself. The pupils of these particular establishments had a more positive attitude to school and were more enthusiastic about their studies than pupils in other schools with high delinquency rates. Even if educational improvements affected only vandalism to schools they might often be justified because schools themselves are one of the commonest targets of vandalism. Evidence submitted to a Home Office working party (Home Office, 1975) indicates that most vandalism is directed at local authority property and that damage to schools accounted, on average, for about 40 % of the costs of local authority repairs. Schools which experience a high rate of damage might do well, therefore, to consider what this might imply in terms of the attitudes held by their pupils and to examine what courses of action might be available *which* could remedy the situation.[1]

The present study has shown that low attainment and a negative attitude to school although correlated with one another are both independently related to involvement in vandalism. This finding is of some importance for those concerned with the prevention of vandalism: it is not at all easy to see that there is any course of action which is likely, in the short term, to markedly affect the incidence of academic failure because the exigencies of the employment market impose upon the educational system, considered as a whole, the task of ranking its students according to their academic ability. In addition, whenever studies have taken into account differences in home background and I.Q. the residual effect of the way schools operate has been found to be slight (Coleman, 1966; Plowden, 1967; Barnes and Lucas, 1974). Children entering the school system differ widely in their capacities and it seems that schools, as presently constituted, can do little to modify these variations.

Hostile pupils are not, however, the only factor such schools should consider. The work of Pablant and Baxter (1975) suggests that environmental features of the kind discussed in Chapter 4 may also be important.

Although academic failure for some pupils may well be endemic in our education system dislike of school would seem, at least in principle, less inevitable, even among boys who make little headway with academic studies. The reasons for dislike of school may vary from pupil to pupil and from school to school. Sometimes what may be needed is to relax an overly coercive approach to discipline (see Finlayson and Loughran, 1975; Reynolds, 1976; and Heal, 1978); in other cases it may be more a matter of a shift in the emphasis of the curriculum followed by the less academically motivated pupil towards studies for which he can muster more enthusiasm.

Use of leisure time

It has been found that boys who spend their free time hanging around the streets in the company of a 'tough group' are much more likely to become involved in vandalism. It might be argued, therefore, that vandalism (and delinquency generally) could be reduced by improving leisure opportunities since this should cut down the amount of time such boys spend on the street.

But the opposite argument is by no means implausible. Vandalism is not particularly time-consuming and can easily be undertaken while travelling between home and leisure facilities given that almost any urban route will pass by street lamps, 'phone boxes and other convenient targets. It is even possible that improvements in leisure provision could draw boys onto the streets and into the company of a 'tough group' who would otherwise remain at home, quietly watching television. A further difficulty is that when not in use club premises may themselves provide a target for vandalism. Certainly there seems no compelling, a *priori* reason to believe that increased investment in leisure provision would reduce vandalism and delinquency.

Nonetheless Bagley (1965), comparing cities in England, found that those which spent more on leisure provision for adolescents enjoyed lower delinquency rates, irrespective of the social class composition of the areas concerned.[1] And there is little question that in many areas demand outstrips supply: Hindle (1974), for example, found that in parts of Carlisle club facilities were only available three evenings a week. [2] But the increase in provision would often need to be substantial and the problem with this is that the extra staff, equipment or premises necessary could well cost as much, if not more than, the money saved by reducing vandalism - i.e. it will frequently be difficult to make leisure provision a 'cost-effective' prevention method. In some localities it might be felt that increased spending on

1 A more recent unpublished study by the Department of the Environment showed that police statistics of criminal damage were no lower in areas where leisure provision spending was high but given the nature of the statistics used (see Chapter 2) the reliability of this evidence is dubious.

It is often asserted that juvenile delinquents are 'unclubbable'. This is questionable: Hindle (1974) showed that juvenile offenders in Carlisle spent more time at clubs than non-offenders. This finding was confirmed by the present study: 67% of the boys 'highly' involved in vandalism said they visited a club at least once a week compared with 51 % of boys with 'medium' or 'low' involvement.

leisure provision was justifiable on wider grounds than vandalism alone. Alternatively it may be possible to circumvent the problem by such means as encouraging greater participation by voluntary, unpaid youth workers or increasing the use made of school premises out of school hours ('dual use'). Nevertheless, given present constraints on local government spending, it is likely that the cost-effectiveness issue will often limit the practicability of improving leisure opportunities as a preventive strategy.

A further problem with the relationship between leisure opportunities and vandalism is the great diversity of possible provision. This ranges from more traditional activities such as youth clubs and the uniformed troops (Scouts, Boys' Brigade etc.) to more recent developments such as adventure playgrounds, play leaders and detached youth work. Some of these approaches may have much more preventive potential than others but although optimistic claims are not uncommon, they are scarcely ever substantiated. It may be useful, nonetheless, to distinguish leisure provision which does not aim higher than entertainment or distraction from that which has more 'developmental' goals. It is not enough, it is argued, merely to 'get them off the streets': a good many adolescents are not in a position to recognize leisure opportunities that would, in fact, appeal to them and many have little opportunity for any sustained interaction with mature adults. The Wincroft project (Smith et al., 1972) provided some support for the idea that a 'developmental' approach which recognized these needs can be effective in preventing delinquency. The researchers found evidence that the detached youth work programme that was set up reduced court appearances by participants, and it was calculated that the cost of the programme was less than the costs avoided (e.g. the expense of sending a boy to detention centre).

But apart from this careful study there has been little research in England. In America, studies which have looked at delinquency rates before and after the establishment of a boys' club have found a decrease in offending (e.g. Brown and Dodson, 1959). And there is interesting evidence from projects where increased provision was made conditional on the reduction of the bill for vandalism. Olson and Carpenter (1971) report an example of this approach

> A programme worked out with the students of the school of Salmon, Idaho, has nearly eliminated vandalism in that community. The programme was devised by the students: the student body requested that the schoolboard set aside $500 to cover window breakage and let the student body have whatever was left. . . Results were most encouraging. The cost of window breakage was reduced from $2,000 to $30 in one year.'

Steen (1977) has described a similar experiment in Liverpool where young people received financial support for a youth centre in exchange for reducing vandalism. This 'contractual' approach appears to hold some promise although its general application may turn out to be limited by the difficulties of instituting negotiations with those responsible for vandalism.

By and large, however, reliable evidence is extremely scarce and provides little basis for recommending one or another form of leisure provision as a remedy for

vandalism. But equally the lack of evidence is no reason to dismiss the approach. The absence of research into the preventive efficacy of leisure provision is conspicuous and it is to be hoped that in the future the subject will receive more attention. Such research Peed not be expensive or time consuming and simple 'before and after' studies of new provision or experiments such as the systematic variation of the hours clubs open, could provide valuable information without substantial allocation of scarce resources.

In general, then, the findings of the present study provide support for the proposition that improvements in schooling and of leisure opportunities could, in principle, help to prevent vandalism and delinquency, and in this respect reiterate the conclusions reached by earlier workers (e.g. Downes, 1966). It must be admitted, however, that they provide little guidance for practical initiatives; what is needed now is to move on from descriptive studies of the kind presented here to research which attempts to evaluate the efficacy of specific forms of intervention. Focusing on putative 'good practice', such studies would need to examine the effects on vandalism and delinquency of innovation and reform in the fields of education and leisure. Only then will it be possible to have confidence in social intervention as a means of preventing juvenile offending.

4 Vandalism and 'defensible space' on London housing estates (by Sheena Wilson)

AIMS OF THE STUDY

METHODS

The sample
'Defensible space' characteristics
Otherphysical characteristics
Maintenance and caretakers
Child population
Definition of vandalism
Measurement of vandalism
The construction of vandalism rates for each block

FINDINGS

a. *The type and location of (recorded) vandalism*
b. *Damage and storey height*
c. *Child density and vandalism*
d. *Vandalism in "high' child density blocks*
e. *Vandalism in low' child density blocks*

IMPLICATIONS FOR PREVENTION
'Defensible space'
Child density
Play facilities and supervision of children

SUMMARY OF THE CHAPTER

TACKLING VANDALISM

Aims of the study

New each day is the love and care tendered to the few precious feet of private garden on an estate in South London; yet where the front doors open onto the public footway the litter is allowed to gather in windblown swirls and aerosol sprayed paint fades into the brickwork. The contrast in attitudes illustrated here is a puzzle to many municipal housing officers; if only those attitudes of private care and pride could extend to the public sphere then the problem of estate vandalism would be solved (Burbidge, 1973, 1975). The implication is that vandalism denotes too little care and pride. But equally it could denote too much public space, space which is seen as the responsibility of 'other' people.

The research reported here did not set out to provide a comprehensive explanation of estate vandalism, but to see how far the variations in the extent and pattern of vandalism on a large sample of inner London estates could be explained by variations in their lay-out and design. A principal influence on the study was the work done in the United States by Oscar Newman (1972). In his book, *Defensible Space,* he analyses the crime rates on 100 corporation estates in New York and demonstrates that crime rates increase with the height of the building, from an average felony rate per annum of 8.3 per 1,000 people in three-storey buildings, to one of 202 in buildings of 16 storeys or over. Moreover, whereas 17% of all crimes in low-rise buildings occur in communal areas, the comparable figure for high-rise buildings is 55 *%.*

In explaining these findings Newman claims that large apartment blocks, particularly high-rise, are crime-prone because substantial areas within and around them are neither private (and therefore supervised by the residents), nor truly public (and therefore constantly used and overlooked by passers-by). The internal access routes, external circulation routes, and entrances are described by Newman as 'semi-public'. They are not seen to belong to a particular group of dwellings so residents fail to adopt proprietary attitudes towards them. Any kind of surveillance is difficult as windows often do not open on to the access routes, nor do the dwellings have direct access to the common grounds. Where areas are overlooked, outsiders are unlikely to be questioned because the terrain is impersonal and the numbers using it make it difficult for residents to distinguish intruders from inhabitants. In short, these buildings are crime-prone because they lack 'defensible space'.

Newman identifies four major, interrelated components of 'defensible space'. As he puts it, these are:

(1) The capacity of the physical environment to create perceived zones of territorial influence ('territorial definition').

(2) The capacity of physical design to provide surveillance opportunities for residents and their agents.

(3) The capacity of design to influence the perception of a project's uniqueness, isolation and stigma.

(4) The influence of geographical juxtaposition with 'safe zones' on the security of adjacent areas. This last component refers to the general quality of an estate's location, including environmental and socio-economic characteristics, both of which may be related to crime rates.

Within this framework, Newman describes in detail how each aspect of design influences the behaviour of potential offenders and potential witnesses. Design which increases defensible space reduces opportunities for criminal activity to take place undisturbed by exploiting the safeguards inherent in certain forms of building which afford better surveillance and more positive use of shared space by residents. Both in his early book and in later writings (notably Newman, 1976), he deals in detail with methods of achieving defensible space through site planning, and the positioning of windows, paths, doors and lifts. It is these practical implications that make his ideas so attractive for further research.

Newman's thesis, stimulating though it may be, has not escaped criticism. Bottoms (1974), for instance, concludes that the methodological shortcomings of the work are such that the relationship between crime and design cannot be seen as established. Criticisms have centred largely on the presentation of results; detailed findings are scarce, and where they are presented they show a weaker statistical relationship between crime and design than Newman claims. Multivariate analysis of the data (the original method of analysis) is said not to give much support to Newman's theory, while the alternative presentation of results, based on 'comparison of coupled projects' is less rigorous than might be expected. Only two housing projects are compared in detail; and there is no way of confirming that these were chosen for any other reason than that they provided the best results.

In addition, in *Defensible Space* Newman tended to play down the effect of social factors on crime (thus laying his ideas open to the charge of 'architectural determinism'), although in later work (Newman, 1975, 1976), he found the influence of social factors to exceed that of physical design; the number of teenage children, one-parent and welfare-dependent families were particularly important. Nevertheless, although crime rates were lower where the average income of residents was higher, his results continued to show an increase in crime rates with building height. The highest crime rates were found to occur where the most vulnerable populations were housed in the least defensible buildings. In accordance with these findings, Newman is currently concerned with evaluating the effects of 'matching' different household types and income groups with the buildings most suited to their needs.

At the time of planning the present research, *Defensible Space* was the only publication by Newman available. Therefore it is his earlier theories, which focus on architectural design and crime, specifically those concerning the principle of 'territorial definition', that are chiefly explored here. In view of the much lower crime rates on housing estates in Britain, which would have made it virtually impossible to establish relationships between selected types of crime

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and defensible space, it is appropriate that the research deals with vandalism, which has a much higher incidence than other forms of crime.

Methods

The sample

The original sample covered all estates of over 100 dwellings in two inner London boroughs numbering 52 estates in all. The findings reported here are based only on the 38 estates of just one of the boroughs which comprised a total of 285 separate blocks of dwellings.[1] The main analysis was based on scores for each block (rather than whole estates) and these were placed in one of five general design categories as follows (see also Figure 4:1):

(1) *Gallery or balcony access* (N=152). Walk-up blocks (such as 4-5 storey pre-war blocks or lift access 'slabs' of up to 9 storeys). Corridor blocks were included in this category because there were so few in the sample.

(2) *Staircase access* (N=70). Blocks divided into sections, each having a stair-well around which the dwellings are grouped; they are from 2-10 storeys high, the higher ones having lifts.

(3) *Tower blocks* (N=30). All buildings 11 storeys or over (the tallest was 22 storeys).

(4) *Deck access (N=27). Blocks* of 3-6 storeys on high density estates (a design type increasingly employed since the 1960s). Decks are wider than galleries, usually giving access to a greater number of dwellings. Most deck access blocks in the sample had decks linking them with other blocks so that circulation round the estate was possible above ground level.

(5) *Houses* (N=6). Rows of dwellings with no shared entrance.

Defensible space' characteristics

Data on the design and layout of blocks were collected through observation. To, classify blocks along defensible space lines - a rather difficult task in practice - information was collected on:

(1) the *height* ofblocks (number of storeys); and

(2) the *size* of blocks (number of dwellings per building);

as these clearly affected the amount of shared internal access required and the-number of people likely to use it.

1 Data from the other borough were omitted from the main analysis because split half reliability tests showed that information on vandalism was less reliably recorded; also difference in rates of vandalism between estates were markedly less (probably because there was less-variety in the estates and less variety in estate populations) so results were less clear cut. Nonetheless the main determinant of levels of estate vandalism appeared from preliminary analysis to be similar in both boroughs.

Fig 4:1 Design classifications

Houses

Staircase access

Tower block

Balcony or gallery access

Deck access

45
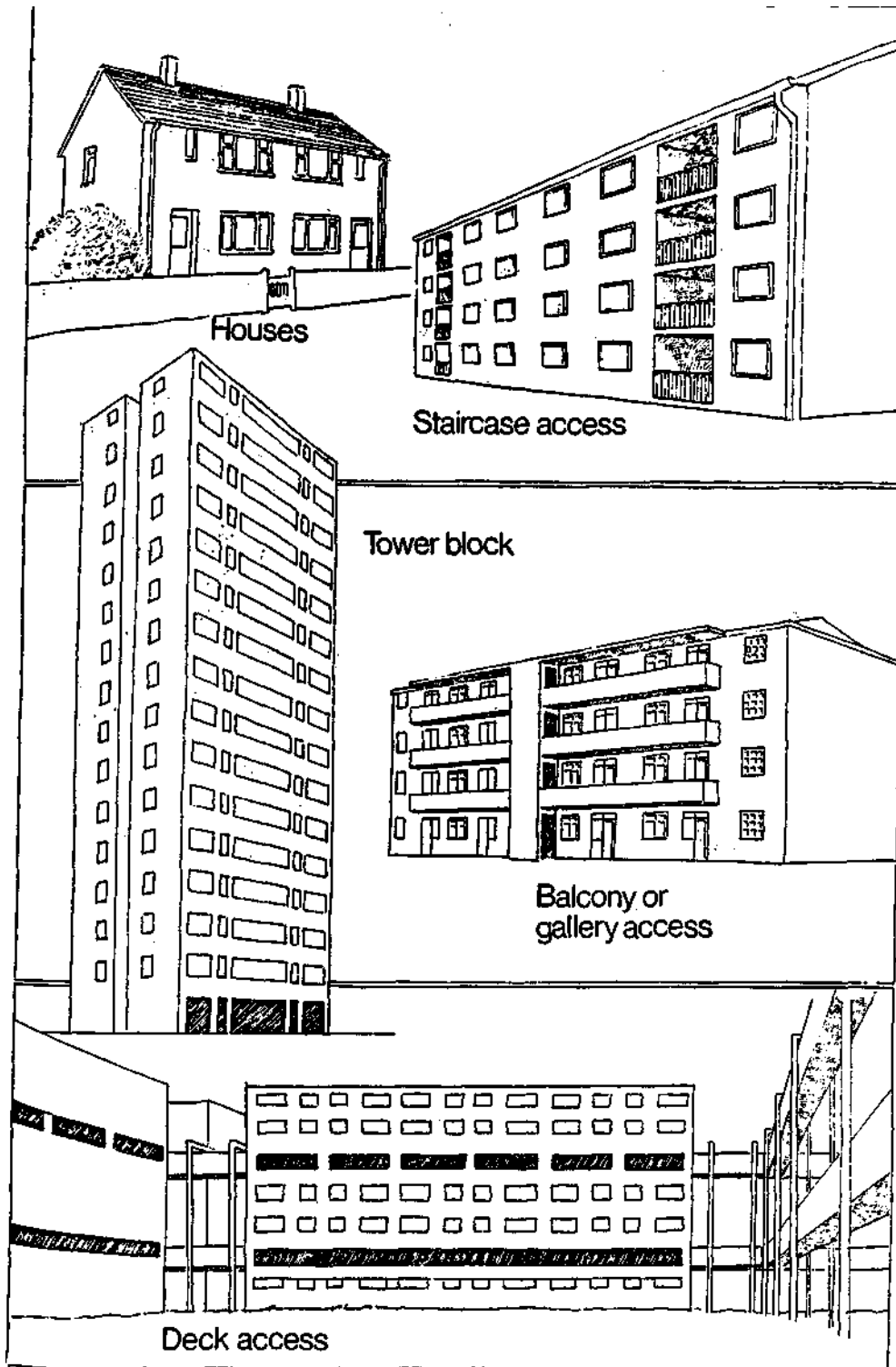
In addition, each block was rated in terms of four aspects relating to territorial definition: [1]

(3) *The average number of dwellings sharing each entrance of the block.* This is a measure of territorial definition commonly used by Newman. It varied in both the low and high rise buildings studied here.

(4) *Entranceways which act as a through-route.* It was noted if blocks had entranceways which de facto or by design acted as a through-route to non-residents, as in the case of blocks straddling a path which clearly leads to other blocks (see Figure 4:2).

(5) *Entranceways which imply resident access only.* It was noted if the path leading to the entrance of the block was marked with a real or symbolic barrier which implied resident access only (see Figure 4: 3).

(6) *Privacy.* Ratings of the degree of privacy afforded by layout were applied only to the front of blocks. They were as follows

(i) *private* if individual gardens or patios fronted the block;

(ii) *semi private* if an area was assigned for the use of one block only (see Figure 4: 4);

(iii) *semi-public* if an area served more than one block (see Figure 4: 5); and

(iv) *public* if there was no intermediate zone between the block and the public domain.

Other physical characteristics

Preliminary visits to estates in a number of London boroughs suggested that there was no simple relationship between vandalism and those features of defensibility which were being studied, and that information about the age of the blocks and certain environmental provisions should also be included:

(1) *The age of blocks.* According to the date of construction the age groups used were: pre-war, 1949-1958; 1959-1962 and 1963-1973.

(2) *Landscaping.* Each block was rated as being either:

(i) *not landscaped* where there was no greenery or paved areas with shrubs for uses other than access or car parking;

(ii) *minimally landscaped* where there were strips of green or flower beds but no area for residents' use;

(iii) *partially landscaped* where there were areas of grass or pavement which could be used by residents for sitting or playing; or

(iv) *fully landscaped* where flowers, trees and seats were provided.

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[1] Due to the need to limit the study, no attempt was made to obtain a direct measure of surveillance (an important component of defensible space) which was independent of territoriality.
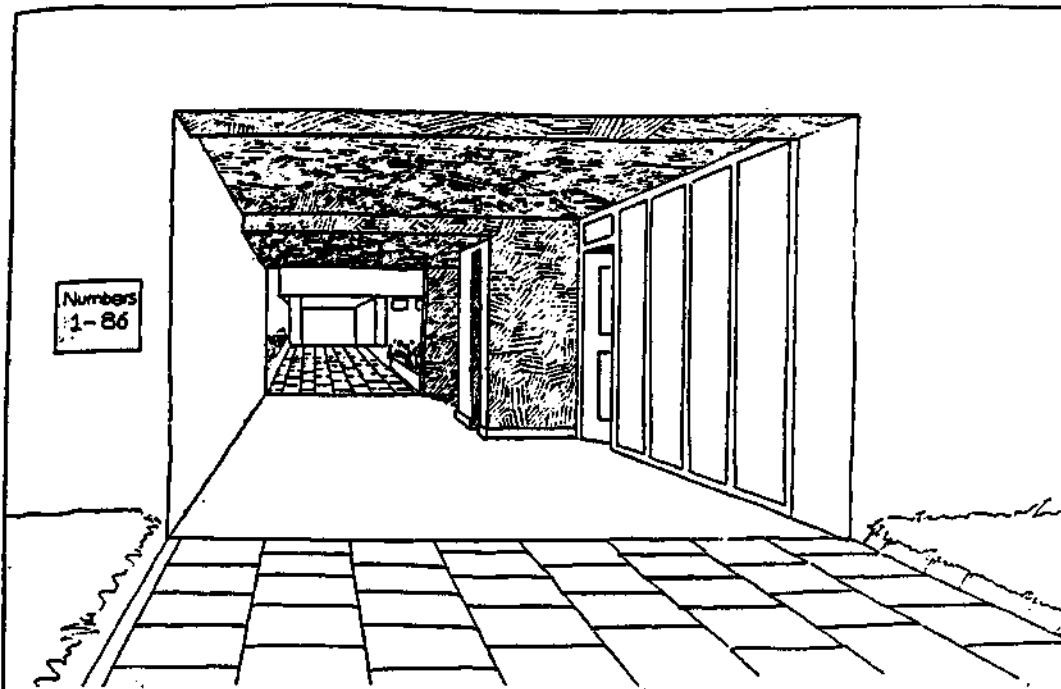
Numbers
1-86

Fig.4:2 An entranceway which acts as a through-route
to other locations

Numbers
1 to 8

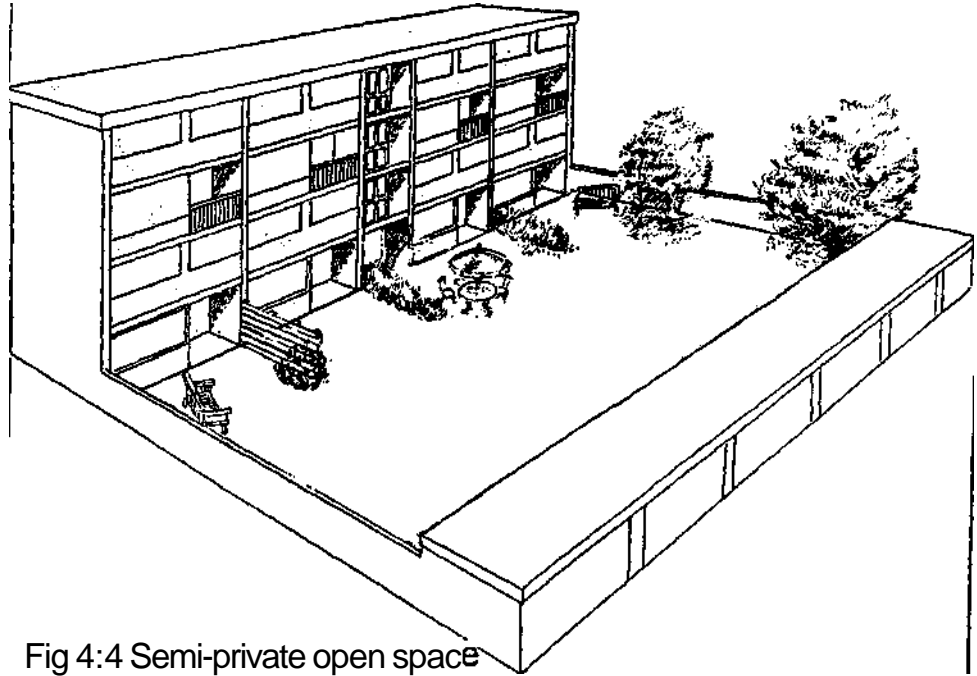Fig.4:3 An entranceway which implies residents' access only
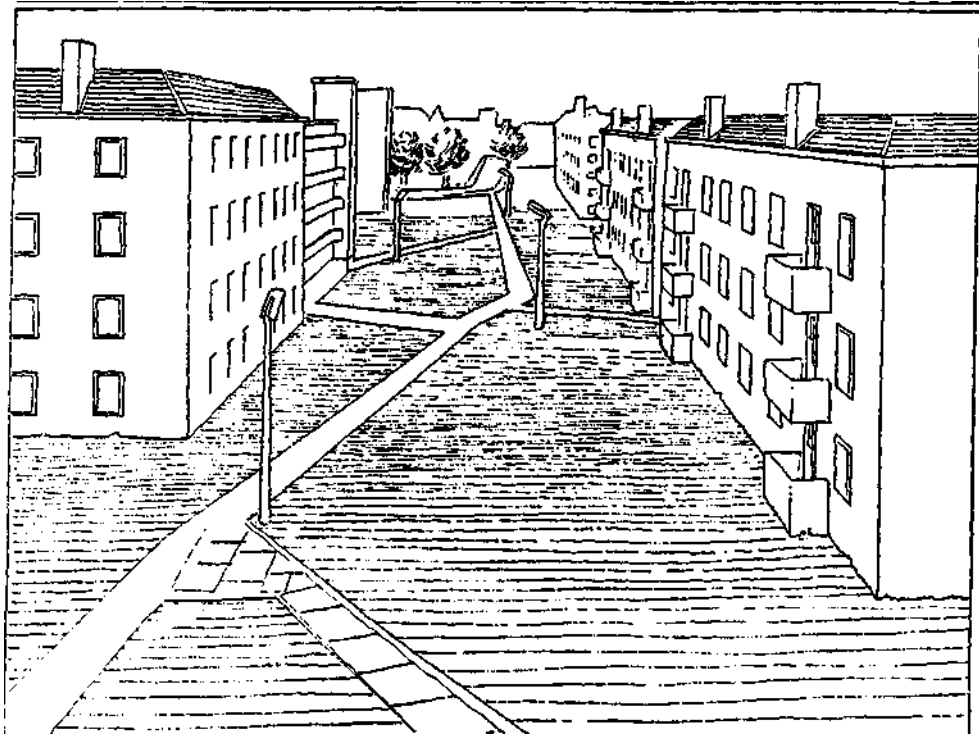
Fig 4:4 Semi-private open space

Fig 4:5 Semi-public open space"

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(3) *Play facilities.* Blocks were designated as having play facilities if these were adjacent to them. The term could refer to a fenced-in strip of tarmac, a group of swings, or specially-designed infant play spaces. (Initially these different types of facilities were separated out but since so few blocks had any provision they were collapsed to form one variable.)

(4) The amount *of glazing* used in design. Each block was assessed for amounts of glazing in entrance-ways and in access routes off the ground.

Landscaping was rated because it is often suggested that the austere appearance of many council estates and their lack of greenery discourage residents from taking pride in their environment. Similarly, any play facilities were noted because lack of such provision is commonly thought to lead to vandalism. Amounts of glazing were assessed, since there is evidence (e.g. Miller, 1973) that vulnerable finishes, such as glass and soft wall coverings which can be picked or burnt, seem to invite damage.[1]

Maintenance and caretakers

Maintenance was looked at as another measure of the standard of provision on estates, taking into account litter, dirt and smells. Poor maintenance standards were found to be associated with vandalism, but as it could not be established whether this relationship was one of cause or effect the variable was not used in the analysis. In the light of the results of the Lambeth Inner Area Study (D.O.E., 1977) which suggested that estates with resident caretakers suffered less from vandalism, it is worth noting that all the estates in the present sample had caretakers resident at the time of the study.

Child population

As the local authority's records proved incomplete and sometimes out of date, variables describing the people living in the estates would have been difficult to collect so, regrettably, the study has limited itself to just one social variable. It seemed particularly important to make special efforts to obtain data about numbers of children on the estates as there was a widely-held belief among housing managers and others consulted about the design of the research that it was children living on the estates who were responsible for most of the damage. In the event, information about the numbers of children aged 6-16 living in each block was obtained from education welfare records. Using this information a measure of child density was calculated. This was a rate of children per dwelling and was obtained by dividing the number of children in each block by the number of dwellings. As vandalism rates per block were being compared, a measure of

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1 It proved impossible to classify adequately the wide variety of wall finishes used throughout the estates. Certainly, though, vulnerability appeared important; on one estate, 'false' Panels which had the superficial appearance of invulnerability were all torn off once it was discovered that they were made of flimsy plastic.

the child density per block (i.e. the average numbers of children per dwelling) was thought to be more suitable than a measure of their number per acre.[1]

Definition of vandalism

For the purposes of the research, vandalism was taken to mean damage to property whether due to accident (such as a football through a window); direct attack (such as air-gun pellet holes in glass); or misuse-cum-play (such as swinging on doors until they were off their hinges). This definition excluded wear and tear therefore, but no attempt was made (nor indeed would it have been possible) to differentiate the effects of intentional damage from those of less deliberate rowdyism. This perspective was applied both in interpreting local authority records and in rating vandalism on the basis of observation. It was a workaday definition, used because of the impossibility of imputing motives to damage already done. In each case it meant 'extra' repairs for the local authority over and above programmed maintenance and standard replacements for wear and tear.

Measurement of vandalism

Vandalism was assessed in two ways: first, as police records are a poor source of information (see Chapter 2), information was taken from local authority repair records; second, assessments of damage were made by direct observation of each block

Local authority records of vandalism:

Because vandalism repairs in the maintenance records were not always differentiated from repairs for other damage (though they were meant to be and, indeed, this was one of the reasons for undertaking the study in the boroughs chosen) it was necessary to examine all individual repair chits issued for each of the blocks in the sample and to decide which items repaired were due to vandalism. To obtain a sufficient number of incidents, chits were examined relating to a 15-month period, 1 January 1973 to 31 March 1974. Identifying vandalism in this way proved to be a fairly straightforward task; housing managers and technical officers were constantly consulted about the possible causes of breakage in order to sift out repairs needed due to wear and tear, faulty design, or unusual circumstances (for example, high winds blowing out glass).

The staff were also asked about methods of reporting damage in order to assess the reliability and completeness of the records. As a result, the final analyses concentrated on lifts, broken glass, and structural damage. Other types of damage

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1 In the analyses presented in the Appendix, the measure of child density is based on the number of boys in each block. The number of boys and girls in residence was highly correlated, but the association between vandalism and the number of boys was slightly clearer than between vandalism and the number of boys and girls. For the sake of simplicity, in the rest of this report, the relationship between 'children' and vandalism is referred to where this is the relationship between 'boys' and vandalism. Where numbers of children or child densities are quoted, the appropriate number of boys has been doubled to provide an estimate of the overall number of children

like graffiti, broken light bulbs, and ruined shrubs, appeared either to be inconsistently reported or dealt with by the caretaker on location, and these were excluded.

As some quantification is necessary in order to compare rates of vandalism in different buildings, the basic unit of analysis from local authority records has been an item of damage. Inevitably, this conceals the fact that there was variation in the degree of seriousness of each incident of damage; in the cost of repairs (accurate figures on the cost of damage were not available); and in the social costs (for example, the effect it has on the appearance of the block or the number of people inconvenienced by it).

Observed vandalism:
Some indication of these social costs came from direct observation of the extent of vandalism to individual blocks. This complemented recorded data in giving an idea of the extent of damage occuring in certain locations, such as outside walls and stairways. Concentrations of damage in communal facilities could greatly affect the appearance of the buildings and cause much inconvenience, more so than when damage (which on the basis of recorded data could involve a substantial number of items) was piecemeal and dispersed. Moreover, whereas the recorded vandalism rate reflected the frequency of damage and its extent relative to the size of the building, the observed vandalism rate reflected the intensity of damage and the ability of maintenance staff to keep up with repairs. This distinction proved important in interpreting the results. Also, some of the damage picked up by the observations (especially graffiti) was not included in recorded rates for reasons already given.

Each estate was visited on one occasion and individual blocks were scored for vandalism using a 4-point scale:

1 - minimal damage or none;
2 - a few panes broken or some *graffiti;*
3 - more than a few panes broken and considerable or extensive graffiti;
4 - extensive boarding up, breakage and graffiti.

The construction of vandalism rates for each block
Using *recorded* data, four rates of vandalism for each block were constructed and analysed:

(1) *Unit rate.* This was the number of items of damage to glass or structural fittings, divided by the number of dwellings in the block.
(2) *Rate of damage to dwellings.* Damage to dwellings as opposed to communal areas was calculated per 10 dwellings in each block.
(3) *Rate of damage to ground-floor communal areas.* Damage in these areas was divided by the number of entrances, as this was where most damage occurred.[1]
(4) *Rate of damage to lifts.* In lift access blocks, call-outs for lift repairs were divided by the number of lifts.

1 The rate of damage to communal areas off the ground was also measured per 10 dwellings in each block, but these rates were generally low and were not analysed.

In addition an observed rate of vandalism for each block (i.e. the 4-point scale described above) was used.

In constructing the unit rate - the principal recorded measure of vandalism - damage which was infrequently reported or which ocurred in outside areas shared by more than one block, was not included. This measure, therefore, has a slight bias in that damage to dwellings, rather than to public areas, is over-represented. This has been borne in mind when interpreting the results.

The subdivision of the unit rate into damage to dwellings and damage to ground-floor communal areas proved useful in that the level of unit damage could mask differences in patterns of damage. In particular, buildings with damage occurring predominantly in communal areas tended to have correspondingly lower rates of damage to the dwellings themselves. Damage to lifts was not found to be strongly correlated with other types of vandalism. Some buildings with high rates of lift damage had little other damage; possible reasons for this are given below. The Correations between the different measures of vandalism which are shown in Table 4: 1 demonstrate that not all types of damage are highly correlated.

Table 4:1

Correlations between the different measures of vandalism

	Observed vandalism score	Unit rate	Rate of damage to dwellings	Rate of damage ground floor communal areas
Unit rate	-42	_	_	_
Rate of damage to dwellings	.23	.60	_	_
Rate of damage to ground floor communal areas	.34	.39	- 01	
Rate of damage to lifts	.34	.12	- . 1 4	.18

Findings

Some basic statistics about the distribution of vandalism, some of which have relevance to 'defensible space', are presented first. These are followed by more detailed findings concerning the relationship between vandalism, child densities and design features of the estates. (Some of the detailed findings are shown in tables in the Appendix which are identified here by the prefix 'A' before table numbers).

a. *The type and location of (recorded) vandalism*
Altogether a total of 6225 items of vandalism were recorded in the local authority's records for the 38 estates. The damage was categorised into six types (only

the first three of which were used in constructing rates of 'recorded' vandalism - see above). Table 4: 2 shows the distribution of damage between the various types.

Table 4: 2
Types **of vandalism**

	Glazing	Lifts	Structure	Electrical equipment	Decoration	Miscellaneous	Total
Number of items of damage	3,294	1,643	960	177	79	72	6,225
Percentage	53	26	15	3	1	1	100%

Glazing was the item most frequently recorded as damaged. It included window panes, balcony panels, and louvred ventilation. In some instances glass had been placed at foot level, near a playground, or in some other clearly vulnerable position. On one newly-opened estate whole lengths of persistently broken balcony panels had had to be replaced by brick, with a consequent reduction in the bill for damage. In other buildings, glazing damage had been reduced through the introduction of thick plastic panelling, although few such finishes proved totally vandal-proof; they could be scratched, burnt or sprung out. The vulnerability of glass to damage was particularly apparent in blocks with high densities of children (see Table A6 and below for a discussion of child density).

The figure under the heading 'lifts', the second most frequently recorded item, represents the number of times an engineer had to be called to do repairs; it covers fairly minor damage, such as the removal of starter buttons, as well as more serious interference with the mechanics of the lift. Lifts, too, were particularly prone to damage in blocks with high child densities (Table A1 0). It is interesting to note (see Table A5) that the rate of damage to lifts tended to rise in buildings where there was little glazing in the entrance (despite a positive correlation of 0.32 between the existence of lifts in a building and the extensive use of glazing). Although, on the one hand, this finding might be interpreted as showing that vandalism is 'displaced' (see Chapter 5, p. 73) to lifts if there is little glazing around to damage, it might, on the other, indicate that lifts are particularly vulnerable to damage when situated in lobbies where the opportunities for residents and passers-by to see what is happening in the lift area are restricted by lack of glazing.

Structural damage, the third most frequent category, refers to doors, panelling, walls, railings, and cupboards containing electrical fittings.
Damage was also categorised according to its location within and around the blocks, as shown in Table 4: 3.

Table 4: 3

Location of damage

	Lifts	Private dwellings	Stairs corridors walkways	Communal facilities*	Entrances	Out-side areas	Under-ground garages[1]	Roofs	Total
Number of items of damage	1,643	1,475	1,416	776	361	289	176	89	6,225
Percentage	26	24	23	12	6	5	3	1	100%

*'Communal facilities' covers tenants' store-sheds, cupboards for fittings, caretakers rooms, laundries etc.

1 Several underground garages had, because of vandalism, ceased to be used and had been left unrepaired, so the figure given is likely to be an underestimate.

It can be seen from Table 4: 3 that only about one quarter of recorded vandalism on the estates was to dwellings. The majority of dwellings involved were at ground level and most of the damage (68 %) was window breakage. (A significant minority of dwellings were vandalised while empty). Most of the damage on the estates occured in public areas many of which - lifts, stairways, underground garages, roofs, and, in some areas walkways and community facilities - are out of sight from dwellings. This information on the location of damage therefore supports Newman's general contentions about the vulnerability to vandalism of those 'semi-public' areas on housing estates which are not readily given sur-veillance by residents.

b. *Damage and storey height*

It was found that some 60 % of damage (excluding that to lifts) is done at ground level including outside areas and underground garages. One reason for this is that the ground level contains more breakable items such as entrance doors, fences, and store-sheds. Another reason (see below) is that children tend to play at ground level.

Unit rates of damage decreased steadily with height and most of the damage (75 %) above ground level was in communal areas rather than to private dwellings. This damage was often to staircases which in buildings of five or more storeys were less frequently used as most people used the lift; being secluded these stair-cases offered greater opportunities for damage to take place unseen.

Though unit rates of damage decreased with building height, there was more damage to ground floor communal areas the higher the building (see Table 4: 4). The latter result is consistent with Newman's findings.

Table 4: 4
Storey height and damage in ground-floor communal areas

		Damage in ground-floor communal areas	
Storey height	*Number of blocks*	*Percentage of blocks with less than one item per entrance*	*Percentage of blocks with one or more item per entrance*
1-4	123	83%	17%
5	95	77%	23%
6-10	37	46%	54%
11-22	30	23%	77%
Total	285	**70%**	**30%**

X2=46.4: 3df; p <.001

Opportunities to commit damage around the entrances of tower blocks were enhanced by the fact that the ground floors of some were used as service areas for tenant store-sheds etc., which were separate from the dwellings and often hidden from public view. Another feature of tower blocks particularly vulnerable to damage were mezzanine levels giving pedestrian access from one block to another. The entrance-ways of tower blocks were also particularly public in nature as any one entrance could service up to 120 dwellings.

c. *Child density and vandalism*

Regression analyses performed on the vandalism rates for the 285 blocks showed that child density was the single most important factor in explaining variation in the observed vandalism rate and in all but one of the measures of recorded vandalism (see Tables Al-5).[1] The exception was the rate of damage in communal areas on the ground floor where storey height was of more importance, although child density still contributed to higher rates. Table 4: 5 shows the relationship between child density and two of the measures of vandalism, the unit rate and observed vandalism.

While the two variables of 'child density' and 'numbers of children' tend to be correlated, it is possible to find blocks with a low ratio of children to dwellings but which, because they are large, might house substantial total numbers of children. In these blocks the rate of observed vandalism and the rate of damage to communal access areas were also likely to be high (see Tables Al l and A12). In general, it seemed that where the total number of children in the block was 20

1 It is important to note that child density still only explained a small proportion of the variations in each of the rates of vandalism (explained variance ranged between 5 % and 20% which is fairly standard for studies of this kind).

Table 4: 5
Vandalism and child density

		Observed vandalism		Unit rate of vandalism	
Children per 10 dwellings	*Number of blocks*	*Percentage of blocks with little or no vandalism **	*Percentage of blocks with fair amount of extensive vandalism*	*Percentage of blocks with 0-2 items of damage per 10 dwellings*	*Percentage of blocks with 3 or more items of damage per 10 dwellings*
Less than 1	41	93%	7%	68%	32%
1-2.9	74	69%	31%	57%	43%
3-5.9	106	60%	40%	44%	56%
6-8.9	40	45%	55%	35%	65%
9 or more	24	38%	62%	13%	87%
Total	285	63%	**37%**	**47%**	**53%**

*Blocks with little or no vandalism were those which scored 1 and 2 on the scale of observed vandalism (see page 51); blocks with a fair amount or extensive vandalism scored 3 or 4.

or more, vandalism was likely to be high. Details of lift call-outs for the 117 blocks with lifts, for instance, showed that only 32 % of the blocks with less than 20 children had more than 4 call-outs per lift, compared to 70 % of the blocks with greater numbers of children than this (see Table 4: 6).

Table 4: 6
Damage to lifts in lift-access blocks and number of children in the blocks

		Lift call-outs	
Number of children in the blocks	*Number of blocks*	*Percentage of blocks with 0-4 call-outs*	*Percentage of blocks with 5 or more call-outs*
0-19	**47**	68%	32%
20-159	**70**	30%	70%
Total	117	45%	55%

X2=16.4; **ldf; p<.001**

The relationship between the two measures of child population and vandalism is revealed to be more complicated still by consideration of the rate of vandalism per child in the different blocks. In fact it was found that the rate of vandalism

per child *decreases* with both child density (r=-0-26) and number of children per block (r=-0.27). The relevance of these findings both for achieving an under-standing of vandalism and for prevention will be discussed later.

The findings concerning child density suggested that the principal objective of the study, i.e. elucidation of the relationship between 'defensible space' character-istics and vandalism, might only be met by first controlling for the variable of child density in the analysis. The 285 blocks were therefore divided into a group of 'low' child density blocks (N=115) and a 'high' child density (N=170) group, taking a cut-off point of 3 or more children per 10 dwellings to define 'high' density.[1] The two groups of blocks were found to differ significantly on five variables apart from that of child density: the age of blocks, design type, number of storeys, degree of 'privacy' at the front of blocks, and amount of landscaping. These variables are all inter-related. It seems, therefore, that in this sample the higher child densities are found in post-war deck-access design types and in pre-war gallery access blocks; the latter in particular usually had little or no land-scaping while deck-access blocks often had individual gardens provided at ground level. Low densities of children were more common in tower blocks or estates opened in the 1950s. These broad differences between the 'high' and 'low' child density blocks have been taken account of where necessary in inter-preting the findings reported in the sections below.

d. *Vandalism in 'high' child density blocks*

The relationship between vandalism rates and child density and number of children was still paramount within this group of 170 'high' child density blocks (Tables A6, A7, A10). The overall impression gained was that most design types can be vulnerable if child densities are high and that children will play and cause damage in most parts of an estate wherever the finish and lay-out of facilities affords opportunities for this. None of the defensible space measures were found to be significantly related to measures of vandalism for the group. Nor was vandalism related to age and design type. The analysis did show the importance, however, of some other aspects of design and lay-out, particularly of landscaping and playing facilities.

Landscaping:

Both the level of observed vandalism and the unit rate of recorded vandalism were higher in blocks with little or no landscaping irrespective of child density (see Tables A1 and A2), though the strongest correlation between absence of landscaping and damage was for damage to dwellings in blocks with high child densities (Table A8). The landscaping scores were based on such things as the presence of flower beds, trees and grass; these may have reflected amounts of open space, although no exact measure of the ratio of dwellings to amounts of

1 The cut-off point of 3 or more children per 10 dwellings was chosen for blocks with 'high' child density because a higher cut-off point would have given too many blocks where the absolute number of children exceeded 19. Also, the results obtained by techniques of regres-sion analysis on the sub-samples were clearer if a split was made at this point.

open space was obtained. Nevertheless the provision of landscaping was associated with less vandalism only in those blocks, such as some built before the war, where most children's play was likely to take place outside (because the internal communal areas were too cramped or private). Many of the pre-war blocks sat directly on tarmac courtyards so that ground floor dwellings were particularly vulnerable if children played there. In the large modern blocks, however, which had extensive areas of shared internal access, provision of landscaping was often generous, but this did not appear to deter children from playing inside the building and causing damage there.

Play facilities:
Similarly, the provision of play facilities adjacent to the blocks did not prevent children from playing elsewhere on the estates. In fact the existence of play facilities appeared to attract greater numbers of children to one location, possibly because play provision generally was so scarce. Unit rates of damage, observed vandalism, and rates of damage to dwellings were higher in blocks with play facilities adjacent to them, especially where child densities were high (see Tables A3, A6 and A8 respectively).

e. *Vandalism in 'low' child density blocks*
The main finding to emerge from the analysis of blocks with a low child density was that rates of damage were influenced by design factors apparently relevent to 'defensible space'. In this regard, type of entrance was particularly important: vandalism was higher where there was a 'through' entrance (see Table A1 1), possible because of the easy access it afforded to outsiders. The entrances of many of the larger, modern blocks were particularly impersonal because they could be used as a throughway which made any form of 'neighbour recognition' exceedingly difficult. In contrast, where it was implied, through the positioning of paths or fences, that the entrance was for the residents' use only, vandalism in blocks with a low child density was lower (see Table A11).

Lifts:
It has already been mentioned (in the section on The type and location of recorded vandalism) that once the child density was high all types of lift access blocks were vulnerable to lift vandalism, but in blocks with a low child density there was considerable variation in damage to the lifts and, again, the degree of territorial definition in entrance-ways seems to be important. First, damage to lifts was lower if the entrance implied residents' access only. Second, through-routes seemed to result in damage to lifts: of those blocks with an entrance acting as a throughway, for instance, 76% had 5 or more lift call-outs; for blocks with a discrete entrance, only 30 %, had this number of call-outs (see Table 4: 7).

In certain tower blocks with very few children, lift damage was the only type of damage experienced. Lifts in tall buildings may attract children from outside or provoke the otherwise property-regarding residents to vent their frustrations on them when they are too slow or break down. Greater damage to these lifts may also to some extent reflect the possibility that they are subject to greater use.

Table 4: 7

Damage to lifts in blocks with a low child density, and type of entrance

	Number	*Lift call-outs*	
Type of entrance	*Of blocks*	*Percentage of blocks with 0-4 call-outs*	*Percentage of blocks with 5 or more call-outs*
Discrete entrance	30	70%	30%
Entrance acting as a throughway	21	24%	76%
Total	51	51%	49%

$X2=10.5; 1df; p<.01$

Building size

As indicated above the measure of observed vandalism reflected a particular dimension of vandalism; its intensity, and the rate of repairs. One factor in particular - building size - was correlated with observed vandalism in low child density blocks although it did not appear to affect recorded rates of vandalism. Observed vandalism was greater in blocks with 30 dwellings or more (see Table All). Blocks of this size were particularly prone to damage in communal areas (a form of damage difficult to keep up with by regular repairs) as the amount of shared space within them was necessarily greater, and more public.[1] In addition, much of the shared space served the very limited function of giving access; it did not lend itself to further use by the residents as a place to sit or to socialise with neighbours, and in so doing enable them to act as natural policing agents. The access ways were also often austere and uniform, discouraging efforts by residents to personalize them by putting territorial markers, in the form of mats and tubs of flowers, outside their front doors. There was little evidence of such personal touches, for example, on the wide walkways of the deck access design which linked one block to another, whereas the more private access balconies of smaller blocks frequently sported pots of thriving geraniums.

Implications for prevention

'Defensible space'

The main objective of this study was to see how far variability in the vandalism rates of inner London council housing estates could be explained by their differing levels of 'defensible space' (Newman, 1972), although in the event certain

1 Landings and corridors off the ground in tower blocks, however, were not necessarily much used. They often gave the impression of seclusion and privacy and they rarely suffered from damage.

other variables were looked at, some of which were found to correlate with rates of vandalism. The study does not purport, however, to provide a comprehensive explanation of vandalism on municipal estates.

The study found that the principal factor related to levels of vandalism in the sample of estates studied was child density. Thus, the implication of Newman's early work that design features exert the primary influence on vandalism rates did not receive support. However, in later work (Newman, 1975; 1976), Newman himself has been more precise about the relative importance of 'social' versus design factors, and has presented findings which show that the influence of social factors (for instance, the percentage of residents receiving welfare, and per capita income of estate residents) exceed that of physical design. The present research was limited by the fact that due to practical difficulties in obtaining data the only variables measured relating to the social composition of estates were the numbers and densities of children. (Other variables likely to be important are the social aspirations and demographic and socio-economic characteristics of the tenants as well as the standard of management and caretaking (Lambeth Inner Area Study, 1977).) Nothing can be said, therefore, about the possible importance of those other social variables which Newman found relevent to vandalism and crime rates in public housing projects in America. The influence of children on levels of vandalism found in this study, however, can be seen to echo the results of Newman's analysis of 100,000 units of public housing in New York (Newman, 1975) which showed that the number of teenage children was second in importance in determining levels of crime only to the percentage of one-parent families on welfare.

With regard to the secondary importance of defensible space itself, this study gave some limited support to Newman's contentions. Although the influence of defensible space design features seemed to be swamped by high concentrations of children, in blocks with low child densities, design features which reduced the ability of residents to defend semi-public space appeared to be associated with vandalism. The evidence derived from the study supporting the importance of defensible space can be summarized as follows:

> (1) The relatively small amount of damage to dwellings themselves supported the notion that impersonal (and more accessible) space is more vulnerable to damage than targets towards which residents can adopt proprietary attitudes.

> (2) Levels of observed vandalism in particular were high in large blocks (not necessarily high-rise) characterized by extensive semi-public space which could not be easily supervised by residents.

> (3) High-rise blocks experienced more vandalism in ground-floor communal areas - space to which residents feelings of 'territoriality' were unlikely to extend.

> (4) In low child density blocks, vandalism was greater if entrances were impersonal and could be used as a through-way to other locations.

Although these findings are consistent with Newman's theories, the study was by no means a complete test of them. In the first place it was concerned only with vandalism and not with other forms of crime since in the English context of generally much less serious crime rates, it is vandalism that is of most salience; whether vandalism, which may be a relatively opportunist and casual form of behaviour, is more or less influenced by design than more intentional and serious types of criminal behaviour remains an open question. Second, the study was conducted in the relatively limited though important architectural context of housing estates comprising mainlyflats, and for methodological reasons no assessment was made of vandalism levels in areas between blocks (see page 52). In retrospect had the study included more houses - which are closest to the ideal of defensible space - and had it been able to take into account damage in public areas shared by more than one block, evidence relevant to theories of defensible space might have been clearer. Third, testing of the rest of the different components of the concept of 'defensible space' (see pp. 42-3) was not complete. In the main this study has centred on the first of Newman's four defensible space components: the way in which design can create 'perceived zones of territorial influence'. Thus, it did not include, for instance, an attempt to construct a measure of residents' surveillance opportunities - an important factor in Newman's scheme - and it might have been possible to devise different measures of territoriality.

Since the beginning of the present study, the popularity of Newman's thesis has been reflected in a growing body of work, emanating principally from America, which has incorporated either theoretical dicussion, or more occasionally, empirical testing of defensible space. In this body of work, Newman's ideas have usually been dealt with in conjunction with other techniques (such as the use of security hardware) under the heading of what is often called 'crime prevention through environmental design'.[1] In relation to Newman's theories in particular, most attention appears to have been given to the importance of natural surveillance opportunities that flow from housing and street design for residents and pedestrians to 'police' the environment (see, for example, Duffala, 1976; Molumby, 1976; Mawby, 1977)?[2] Although, at present, the evidence on the degree to which areas can be successfully 'defended' by natural surveillance is somewhat inconclusive, and although there are few results available from larger scale empirical tests of the defensible space hypothesis, it would seem, as this study confirms, that architectural design factors can be considered relevant to the explanation of the incidence and patterns of offending.

1 For instance, in America the Westinghouse Electric Corporation, with Federal assistance, is currently undertaking a large research programme to test the influence of the physical environment on crime (Rau,1975). Model programmes aim to reduce crime through environmental techinques in homes, schools, commercial business and transportation.

2 No attempt is made to deal in detail with this and other research related to Newman. Many of the issues concerning the concept of surveillance in relation to crime are being dealt with in work currently being carried out by the Home Office Research Unit.

TACKLING VANDALISM

In terms, then, of the suggestions about design that this research would support, housing estates should incorporate precepts of defensible space - the careful allocation of all space to defined groups of users both to increase feelings of territoriality and to maximise surveillance opportunities. One critical aspect is the territorial definition of shared entrance-ways. Entrances should be discrete (i.e. self-contained and enclosed, giving access only to dwellings within the block) and imply that access is for residents only; large blocks with few resident children will continue to be prone to damage if easy access is afforded to outsiders. Since modifications to existing blocks of flats will in many cases be too expensive to undertake or be unfeasible for design reasons, recommendations with regard to defensible space apply more to the design of future estates.

Child density

In that child density and numbers of children resident were the single variables most strongly related to both observed and recorded vandalism in the present study, it might appear that one solution to the problem would be to disperse families with children more equitably among estates. However, the point should be reiterated that child density and numbers of children accounted for only a proportion of the variance in vandalism rates and that other variables (not measured or immeasurable) are also likely to be important. In addition it was found that the rate of recorded vandalism per child was lower with both increasing child density and numbers of children per block.[1] This may have been due to the fact that there is a limit to the level of damage possible in a particular block; also the rate of reporting and carrying out repairs might slow down once levels of vandalism reach a certain point (as was seen in the case of highly vandalised underground garages).

For these reasons - and, in particular, because there is no straightforward relationship between the rate of vandalism per child and concentrations of children - the effects on vandalism of lowering child densities cannot confidently be predicted. Dispersing the children may simply disperse the problem and result in greater overall numbers of tenants being offended. On the other hand, a reduction in the absolute levels of damage in one location would make it that much more tolerable to those residents affected and might ease problems of maintenance.

[1] Broadly speaking, our analysis suggests that when there are more than twenty children per block problems of vandalism become more acute. It is difficult to give a 'critical' figure for densities of children per acre, i.e. for the variable which planners and architects generally use. As will be seen from Table 4:5, vandalism increases rather steadily with child densities, though it is perhaps when these exceed six per 10 dwellings that the figures for vandalism worsen. On this somewhat subjective standard a very rough translation of six children per 10 dwellings on a per acre basis would be close to 20, assuming a high average density °f 34 dwellings per acre. Since the records used for the present study probably underestimated the number of children living on the estates, and since they applied only to children over 5 years old, it would appear that the critical figure from our study broadly corresponds to the Lambeth Inner Area Study (D.O.E., 1977) 'cut off' figure of 30 children (of all ages) per acre.

Should local authorities attempt to reduce child densities - as many are doing - they are likely to face a number of practical difficulties. For example on estates consisting for the most part of family-size dwellings, reducing the child density would involve a deliberate policy of under-occupation, which in the inner urban areas may not be feasible. Where such a course can be followed, the aim of avoiding either the concentration of large families within blocks, or a great number of families in large blocks, may require a review of the whole system of lettings and transfers. It may involve in some instances the allocation of a certain quota of dwellings in any one block to all-adult households with a low priority rating on the waiting list; and where these include young married couples likely to have children, a flexible system of transfers would be necessary so that high child densities do not eventually develop.

Some local authorities have already taken such action, while others, when rehabilitating pre-war blocks for example, have modified the size of dwellings in order to achieve a mix of one, two and three bedroom dwellings. The scope for reducing child densities in high density areas is nevertheless limited although the Department of the Environment now recommends reduced overall densities (85-100 habitable rooms per acre) for new housing in inner areas and greater flexibility in setting densities to ensure that buildings are more suited to the requirements of those intended to live in them. It is already part of government policy to recommend that families with young children be housed on or near the ground, preferably in houses, due to the now recognised problems of rearing children in multi-storey buildings (Adams and Conway, 1974).

Play facilities and supervision of children
The provision of play space as such did not appear in the present study to prevent children from playing on other parts of the estate, and where provision was generally scarce it seemed likely to attract large numbers of children to one location, making the surrounding areas vulnerable to damage. Research by the Department of the Environment on children's play (D.O.E., 1973) found that never more than a fifth of a child's time was spent in play areas and concludes that the designer's primary concern should be to plan estates with the other four-fifths of a child's outdoor leisure time in mind. Specifically, in order to reduce vandalism it would seem that play facilities should be provided which adequately serve the number of likely users and which are not directly adjacent to living areas. Their benign effect will be limited to the extent that there are semi-public areas elsewhere likely to prove equally attractive as places to play.

The association between children and vandalism also raises the question of whether there is scope for closer supervision of children on estates. This might be organised around tenants themselves, so that, for instance, parents undertake play duties on some kind of rota basis. Present experience, at least in relation to other estate management schemes based on tenant participation suggests, however, that play supervision of this kind (even if financially rewarded) is likely to be severely hampered by general inertia and organisational problems. Many mothers

have jobs making it difficult for them to spare the time for involvement of this kind. Also parents are very unwilling, unless confronted with evidence, to believe that it is their own children who may be responsible for the damage.

Alternatively, children might be supervised more formally by either trained play leaders, or by additional caretaking personnel. Clearly this would be a more costly arrangement which would need to be evaluated in terms of the financial savings made through reduced vandalism; it might be of only limited usefulness given the difficulties of supervising all play activity, and that the requirements of many children, of differing ages, would need to be catered for (D.O.E., 1973). Further investigation of the most effective forms of play supervision needs be carried out; but any provision must be combined with designing estates aiong defensible space lines so that space where children are likely to play can be seen by parents from within their own dwellings.

Summary of the chapter
The study examined rates of vandalism in 285 'blocks' of dwellings on 38 inner London public housing estates with the intention, primarily, of seeing how vandalism was related to certain 'defensible space' characteristics.

In addition to classifying blocks along defensible space lines in terms, for example, of height, size, design type and type of entrance-ways, information was collected on various other physical features such as landscaping and the provision of play facilities. Data were also collected on the numbers of children living in each block. Using this information a measure of child densities was calculated which was the average number of children per dwelling in each block.

Five measures of the amount of vandalism committed in and around individual blocks were used. Four of these were calculated from items of vandalism recorded on local authority repair notes: unit rate of damage ;damage to dwellings; damage to ground-floor communal areas; and damage to lifts. (These measures did not take account of damage to territory shared by blocks). The visibility and intensity of damage was gauged by the fifth measure of vandalism which was based on observation.

Vandalism on estates was found to occur mainly at ground-floor level where most breakable items are situated and where children usually play. Public areas (for instance, entrances and underground garages) were much more vandalised than dwellings, presumably because they were less visible to residents and less clearly part of their 'territory'. Glazing was the most frequently recorded item of damage (followed by lifts) and the amount of observed vandalism at any one time was substantially affected by the amount of glazing in entrances and access ways. Child density emerged as the single most important variable of those studied, though the overall number of children living in blocks was also important in relation to vandalism rates.

There was no direct relationship between design features and vandalism: all types of blocks could suffer from damage, and rates of vandalism varied between

similar block types. In blocks with average to high child densities, defensible space attributes were either unimportant or obscured, although certain other provisions of design (landscaping, play facilities and robust finishes) may be especially necessary to reduce vandalism. In buildings with low child densities certain aspects of design which impede defensible space may have a critical effect on the amount of vandalism these buildings sustain: such blocks suffering damage tended to be large and high with damage to the lifts and in the extensive public areas. Vandalism was also higher in these blocks when entrances acted as through-ways to other locations, affording easy access to outsiders.

The study suggests that in the future design of housing estates principles of defensible space should be incorporated: dwellings should overlook outside areas so that children at play can be seen; impersonal space which is not part of residents' territory should be reduced; and entrances should be made discrete for residents' use only. Reducing child densities through dispersal of families with children is problematic but may have a significant part to play in prevention. Where possible, families with children should be housed in buildings small enough not to need lifts or much semi-public access space. Landscaped areas may be used to demarcate physically dwellings from areas where children are likely to play. Play facilities may reduce vandalism only if they are adequate for the likely number of users, if they are located not too close to dwellings, and if semi-public space where children will inevitably play is not extensive. More robust materials should be used in construction and repair (this is particularly the case for lifts though it also applies to many other vulnerable fixtures and fittings), and where possible the use of glazing reduced. Finally, it is important to note that the suggestions for prevention, arising as they do out of a somewhat circumscribed study, may have only a limited part to play in dealing with the problem of vandalism on municipal housing estates.

5 The nature of vandalism

THE MAIN FEATURES

THE LIMITATIONS OF DETERRENT SOLUTIONS

PROTECTING 'PUBLIC' PROPERTY

In the three previous chapters, any immediate preventive implications of the results of the studies have been discussed. In order to see what further implications for prevention there may be, an attempt is made in the present chapter to draw together what has been learned in the course of the research (including the studies of bus and telephone kiosk vandalism - see Chapter 1 - reported elsewhere) about the nature of vandalism, its extent, and the kinds of individuals principally involved. In so doing, it has sometimes been necessary to go beyond the statistical evidence presented in this volume and to draw upon judgements formed in the course of studying the problem for a number of years. It will be seen that consideration of deterrent solutions and of strategies which afford direct protection to vulnerable property flow fairly directly from the main conclusions reached regarding vandalism.

The main features

Perhaps the first general point to note about the nature of vandalism is that it consists essentially of an accumulation of innumerable rather petty incidents of graffiti, broken windows, defaced road signs, uprooted shrubs, and telephones put out of action. The main result of this damage is to impoverish the environment. Only a few instances of vandalism, though these attract disproportionate publicity, involve large sums in repair or replacement or, even more rarely, lead to any real danger (see Chapter 2). In the study of London housing estates (Chapter 4), just over half the recorded incidents of damage involved broken glass. In the Manchester estate studied (Chapter 2) most of the estimated 940 incidents of damage occurring in a six-month period involved rather small sums of money. Reflecting, perhaps, the minor nature of this vandalism, it was found that only 7% was reported to the police and less than half of that which was reported concerned sums of over £20.

The second important point is that a comparatively small proportion of vandalism appears to be committed against people's personal or private property (i.e. their homes - whether owned or rented - their cars, gardens etc.). This is difficult to document precisely because there are no comprehensive records of damage to such property - as was shown in Chapter 2, police records are highly unreliable in this respect. Evidence submitted to a Home Office Working Party (Home Office, 1975), however, indicated that most vandalism is directed at local authority property and in the study of the Manchester estate reported in Chapter 2, the rate of damage to dwellings or to residents' property (0.4 incidents per 10 dwellings) was found to be a minute fraction of the corresponding rate of damage to public utilities such as schools (191.8), telephone kiosks (78.1) and shops (34·0).[1]

1 The fact that in the Manchester study, dwellings (which were relatively free of damage) were owned and maintained by the council, if anything, lends weight to the point that it is personal property that is relatively safe from vandalism. Further, shops which belong to large retail chains may not be seen as 'privately-owned' by those vandalising them and even shops belonging to identifiable individuals may be seen in a different, less personal, category of ownership to the shopkeeper's home or his car.

That 'public' property of the kinds mentioned above is disproportionately victim-ised suggests that those involved may feel it does not matter if such property is vandalised since - the argument usually goes - it does not really belong to any-one who will have to find the cost of repair out of his own pocket. Also, vandals may have found that it is much easier to damage this property because it is less often supervised by anyone who is likely to intervene (when damage is committed to private property it is very often to empty buildings or to abandoned cars).

A third point is that most of the vandalism seems to be committed either by young children in the course of unsupervised play or by older adolescents seeking pres-tige and excitement; relatively little seems to be committed by older youths or adults. This again is difficult to prove but there are a number of reasons for be-lieving it to be true: (i) the trivial nature of much of the vandalism - torn tele-phone directories, broken street lamps, defaced signs, etc. - suggests that it is childish in origin; (ii) the evidence of the self-report study reported in Chapter 3 shows that minor acts of vandalism are widespread among adolescent boys; (iii) on the London estates studied, the single variable most highly correlated with damage was a measure of child densities, and in the study of telephone box van-dalism, the proportion of children resident in the surrounding locality, especially in areas of council housing was important; (iv) schools account for a large pro-portion of vandalism incidents (see Chapter 3) and it is generally agreed that it is children who are responsible for the overwhelming majority of these attacks; and (v) Marshall (1976) reports that in a study conducted in Blackburn he found that 'the peak age of male damage offenders brought to the notice of the police (not just those brought to court) was less than 10'.[1] Though the reasons for the involve-ment in vandalism of older children and adolescents have needed rather careful study (see Chapter 3) it perhaps requires no very elaborate explanation of why younger children are so involved in vandalism. Suffice it to say that it is part of their natural development to explore and manipulate their environment and therefore to be involved in dismantling things, throwing stones, breaking branches, cutting, scratching, scribbling and playing with matches.   Wherever young children play without close supervision, therefore, damage will result.

One last point is that the motivation underlying vandalism by adolescent youths may also fuel other forms of delinquent behaviour, especially theft (see Chapter 3), and the relevance of this for prevention is returned to below.

In sum, then, the main problem of vandalism can be characterised as consisting of innumerable incidents of rather petty damage being committed to vulnerable 'public' property either by young children playing without adequate supervision or by adolescents who are allowed to roam the streets, who are not finding school

1 As shown in Chapter 3, when the numbers at risk in the population are taken into account the rate of known offending among juveniles is found to be about six times greater than among adults. Moreover, given that perhaps only about 7% of vandalism incidents appear in police statistics and that only a proportion of these are 'cleared up' it is likely that 'known' offenders are by no means representative of all offenders - for example, it would be a reasonable guess that alcohol features in a much greater proportion of those criminal damage offences that result in a conviction or a caution.

to be a rewarding experience, and who are seeking excitement and ways of gaining prestige amongst their peers. From this viewpoint, vandalism is seen as the not unexpected expression of certain developmental needs of young children and adolescents who are being brought up (i) under current norms of parental supervision which allow children considerable freedom of movement and self determination of leisure pursuits and (ii) under the conditions which prevail in our cities of high density living and the 'public' ownership of large categories of property.

The limitations of deterrent solutions

The immediate implication of this is that vandalism should not be seen as symptomatic of a deep malaise in the 'moral fabric' of society requiring drastic remedy. In particular, it is clearly inappropriate to give way to those who demand that the full weight of the law must be brought down upon those who are responsible. Such demands, as Marshall (1976) has argued, are particularly strong when people are aware only of the more dramatic incidents of damage, supposedly involving 'hard-core' delinquents. But substantial proportions of our children, especially those living in large cities, are involved in vandalism. Moreover, many of them are aged less than 10 (Rose and Marshall, 1974) and are therefore below the age of criminal responsibility. [1] For those over 10 who are caught, the minor nature of most offences would point to cautioning as the most appropriate disposal[2] but when they do end up in court, it would be clearly unfair to impose heavy penalties in the hope - largely unsupported by available research (Zimring and Hawkins, 1973) - that others might as a result be deterred from such behaviour. Placing a child in some form of secure provision in the public interest would only be justified if a boy or girl had appeared repeatedly before the courts for more serious offences of vandalism. Finally, current forms of rehabilitative treatment for juvenile offenders are of doubtful effectiveness (Cornish and Clarke, 1975), and those involving residential placement are expensive and may even be counter-productive.

An additional reason why deterrent solutions to the problem are of limited value is that very few vandals are caught and it is easy to see why this should be so given that damage can be committed almost anywhere, in an instant, and when nobody is about. Stepping-up the general level of police presence in an area has not been found in various experimental studies (e.g. Kelling et al., 1974) to have a noticeable effect on crime rates, though well publicised anti-vandalism patrols in local settings may have some temporary value. The police could not be expected, however, to keep such patrols up for any length of time given the comparatively minor nature of most vandalism.

1 It might sometimes be appropriate to institute care proceedings for these offenders and it might be possible, in principle, to penalise their parents, but this latter option is generally opposed by social work departments and even magistrates. It may also be possible sometimes to make parents responsible for restitution.

2 The survey of the general public (Research Bureau Limited, 1977) mentioned earlier found that the majority of respondents thought that an unofficial 'ticking-off' from parents or police was the most appropriate punishment for juvenile vandals.

THE NATURE OF VANDALISM

Protecting 'public' property

The fact that so much of the vandalism is directed against property that is 'public' (in the sense of 'public' used on pp. 68-9) suggests that measures which directly protect this property may be needed. There are various ways of attempting to provide such protection

(i) The most obvious one is 'target hardening' to make it physically difficult to commit damage either by using, where appropriate, more robust finishes and materials (e.g. polycarbonate instead of glass) or by placing particular objects (e.g. lights in underpasses) out of reach or behind some form of guard such as a grille or mesh. A variant of this approach is to design essential fixtures so that they merge into their surroundings and do not attract the attention of potential vandals. There is a wide variety of such techniques, many of which are highly ingenious, and which have been listed in'Protection Against Vandalism'(Home   Office,   1970, in the 'Building Research Station Digest' No. 132 (D.O.E., 1971), and by Ward (1973).

(ii)   Additional protection to property may be given by an increase in 'formal' surveillance. Such surveillance focused on particular high risk targets might be provided by guards, watchmen, and special patrols (the Borough of Bromley and Lewisham, for example, has a mobile force of security officers to protect its parks),[1] or by devices such as closed-circuit television cameras or alarms (alarms sensitive to noise have been installed in schools in many areas).

(iii)   The 'natural' surveillance of property afforded by members of the public going about their everyday affairs, has been thought by such writers as Jane Jacobs (1961) and Newman (1972) to be a powerful deterrent to crime. Newman's ideas for increasing natural surveillance relate mainly to public housing estates (see Chapter 4), while those of Jane Jacobs relate also to streets, parks and other public places. She believes that natural surveillance increases with the degree to which a public place is 'busy' and that this can be facilitated by the physical lay-out of buildings and pedestrian routes, by accommodating people at high densities, and by mixing residential, commercial and industrial land usage. Her ideas have been subject to little empirical test, however, and until they have been are unlikely to carry much weight given that prevailing planning theory in this country favours functional separation of land usage (or land-use 'zoning') and low density.

(iv)   Intermediate between 'formal' and 'natural' surveillance of public property is that afforded by employees such as school caretakers, bus conductors, and play-leaders or caretakers on estates. The Lambeth Inner Area Study (D.O.E., 1977) found estates with caretakers who were resident and who,

1 Citizen vigilante patrols have reportedly been formed in some areas, but they generally do not seem to have enjoyed much public support except, perhaps, in the early stages.

presumably, exercised a certain amount of surveillance and supervision, had fewer problems of vandalism.

(v)   When it is possible, the rapid repair of damage may prevent further attack. Unfortunately, evidence relevant to this point is scarce. Zimbardo (1973) found, however, that a car which was left in a run-down inner city area, in such a way as to suggest it had been abandoned, was very quickly reduced to scrap by the successive attentions of adults intent on theft of the valuable parts and of children seeking amusement. (A car similarly abandoned in an affluent area was left undamaged.)

(vi)   In some cases it might be possible to afford protection to certain categories of property (e.g. municipal parks) by excluding juveniles, especially when in groups, unless accompanied by an adult.

(vii)   A means of protecting property which has less general application consists of keeping to a minimum the time that flats and buildings are left unoccupied between lettings or prior to renovation. Where they cannot be re-let quickly or renovated, boarding-up to prevent children and others from entry may be indicated.

(viii)   A final, and more radical, means of affording protection to property may be to reduce the amount that is publicly-owned by selling-off council dwellings to the tenants in the hope that damage in the surrounding areas would be reduced. Such a course, however, would involve a range of practical and political considerations (Field, 1975) of which the potential (though not certain) reduction of vandalism is only one, and perhaps not a very important one.

Though they have attendant difficulties which are discussed below, these various means of giving protection to 'public' property are generally thought to have a part to play in reducing vandalism. Direct evidence from the present research about their effectiveness (apart from some instances reported in Chapter 4 where the use of more robust finishes and materials led to a reduction in vandalism on particular housing estates) is largely confined, however, to 'natural' surveillance and to surveillance by employees.

As far as natural surveillance is concerned it would seem to have some limited value though this may be 'swamped' by the effect of having too many potential offenders (i.e. children and particularly boys) housed together in one locality. In the study of London housing estates it was mainly blocks with low densities of children that appeared to profit from 'defensible space'. A similar result was obtained in the study of telephone box vandalism: boxes which were afforded some degree of natural surveillance by being overlooked from dwellings had slightly lower rates of vandalism, but this effect was weaker for 'council' areas where there were large numbers of children.

According to the limited evidence of our research, however, surveillance by employees can be very effective. In the study of bus vandalism (Mayhew et al., 1976)

it was found that the supervision of passengers by the driver and the conductor had an important effect on rates of vandalism, these being very much higher on one-man operated buses and on the rear top-deck of all buses. These findings are in line with those of the D.O.E. (1977) study about the value of estate caretakers and they suggest a profitable line of further enquiry.

As mentioned above, whatever the effectiveness of these various means of affording direct protection to property, they do have a number of attendant difficulties. First, care must be taken that the costs of protection do not outstrip the costs of repair or impair the 'amenity' value of the property, though these sorts of calculations are always complicated by imponderables such as the weight that should be placed on the public's desire to see vandalism reduced. It may sometimes be that resources simply do not exist to repair minor damage quickly enough to prevent it escalating and that repairs are only cost-effective when damage has been allowed to accumulate. Making an assessment of the costs and benefits can be complex. To take the example of vandalism on buses, it may not be economic to employ conductors solely to reduce damage because their wages may be greater than the costs of repair. But employing more conductors might reduce bag-snatching and pick-pocketing. It might also speed the passage of the buss (which in turn would speed the flow of urban traffic) and moreover, in a period of high unemployment, may provide some much-needed jobs. How far bus operators should be expected to take into account the wider effects of their policies, including any crime prevention gains is, however, an open question.

One must also ensure that people's satisfaction with their environment is not diminished by preventive measures. Surveillance is often regarded as oppressive and restrictive of individual liberties. Also the avoidance of glazing and the use of cheap and robust materials on housing estates can lend them an embattled appearance quite as objectionable as extensive vandalism, and which, as many also believe (though there is little relevant research) may provide the stimulus for further attack. This by no means always follows however; polycarbonate is indistinguishable from glass, for example, and stippled paint surfaces which are less inviting to the vandal can be as pleasing as plain ones.

Finally, in considering measures that afford direct protection to property, thought must be given to the likelihood of the damage being displaced to some other target or location. The extent to which displacement should be anticipated depends largely on the intentionality or purposiveness of the behaviour. In the case of young children playing unsupervised, it is perhaps fair to say that the vulnerability of targets itself generates much of the behaviour which leads to their destruction. Reducing opportunities for damage in those places where young children play is therefore likely to result in reductions in vandalism.

As far as the adolescent is concerned, the fact that he may use vandalism as a source of excitement or prestige, may mean that greater impediments would con-

1 It is said that London Transport curtailed a plan for the more widespread. ntroduction of one-man operated buses because these proved much slower than ones operated with a conductor.

stitute a greater challenge (e.g. avoiding the security patrol) or, given his greater mobility, that the damage would be displaced. But there appears to be a strong opportunistic element even in vandalism committed by adolescents and how much displacement is likely to result from simple impediments is very much open to question. Such displacement as occurs might in any case, if one is careful, be to less important targets. In addition, the fact that the adolescent vandal may well have judged that the consequences of damaging 'public' property are rarely serious for individual people should not be overlooked since it might mean that he would be unwilling to turn instead to damaging the personal property of private individuals who would suffer more. For similar reasons it is perhaps even more unlikely that if frustrated from vandalism he would turn instead to crimes such as robbery or assault which are altogether more harmful to the victims. The self-report study (Chapter 3) did admittedly show that many vandals are also thieves. But, again, much of this theft is in the form of shoplifting, often from large stores, and thus may not be seen by the boys as particularly harmful to individual people. Also theft and vandalism are not necessarily functional alternatives - stopping one does not inevitably lead to an increase in the other. Even if there are common elements in their motivation, each may have its own rewards and be governed by its own particular situational determinants.

In conclusion, it would seem that the various means of protecting public property discussed above have much to recommend them, despite problems of public acceptance, cost-effectiveness, and displacement of damage. More evidence about the effectiveness of these measures including target-hardening, rapid repair of damage and surveillance by employees would, however, be useful. Finally it is worth bearing in mind that some of the measures may have attendant benefits as well as costs. The employment of a resident caretaker, for example, may result in generally improved standards of maintenance on an estate (repairs due to vandalism account for only a very small proportion of maintenance work) and 'defensible space' may be as valuable in fostering a sense of community as in reducing vandalism on an estate.

6 Conclusions

OVERVIEW OF PREVENTIVE IMPLICATIONS

ACHIEVING A BETTER FIT BETWEEN RESEARCH AND ACTION

Overview of preventive implications

As explained in Chapter 1, the programme of research undertaken was intended to have relevance for prevention. Even if no direct recommendations were to result, it was hoped that the findings would at least enable comment to be made on the likely effectiveness of a range of possible solutions. In the event, a number of preventive options were discussed in detaill though few were given much support. A list of those discussed is as follows:

 (i) The instilling by parents of greater respect for property in the young (Chapter 3, p. 29).

 (ii) The achievement of the same end by some form of publicity campaign (Chapter 3, p. 35).

(iii) Encouraging parents to exercise greater supervision over their children (Chapter 3, p. 35), or enabling them to do so (Chapter 4, pp. 63-4).

 (iv) The provision of more extensive and more appropriate leisure facilities for 'tough' youths (Chapter 3, pp. 37-9).

 (v) Making school more attractive to 'tough' youths (Chapter 3, pp. 35-7).

 (vi) The more widespread dispersal among public housing estates of families with young children (Chapter 4, pp. 62-3).

 (vii) More police patrolling (Chapter 5, p. 70).

(viii) More punitive action by the courts and attempts to 'treat' more vandals (Chapter 5, p. 70).

 (ix) A variety of means of affording protection to vulnerable 'public' property (Chapter 5, pp. 71-4).

In view of the complexity of the issues, there is some danger in summarising the conclusions reached about the value of these various options and the reader is referred to the pages given in brackets in the list above. But by way of a brief overview it might be said, first, that there is no panacea for vandalism though particular measures may be effective in certain circumstances. Second, as far as damage committed by younger children is concerned, it was thought that it would be helpful if estates were designed so that mothers could more easily supervise their children at play and that reducing child densities on estates may also have a part to play ((iii) and (vi) in the above list). Third, and more generally, any measure which affords direct protection to vulnerable 'public' property ((ix) in the above list) - whoever is responsible for committing the damage - is worth

1 Some others such as the re-introduction of corporal punishment or the imposition of curfews which, in the present climate of opinion, would be unlikely to be acceptable on social grounds have not been entertained. There does not appear, for example, to be a great deal of public support for corporal punishment: a national opinion survey (Research Bureau Limited, 1977) recently commissioned by the Home Office, revealed that only 15% of those interviewed saw this as an appropriate remedy for vandalism.

pursuing subject to cost, public acceptance, and dangers of displacement. Fourth, few of the suggestions for modifying the behaviour of adolescent boys appear to hold out much hope for achieving reductions in vandalism. There may be scope for experimenting with leisure provision for 'tough' youths and for attempting to make school more attractive to them - though it must be recognized that these measures may not bear directly enough on the behaviour itself or its immediate situational determinants to achieve much. On the other hand they might have the additional pay-off of reducing other forms of delinquency as well, especially theft.

Achieving a better fit between research and action
While the research can be said to have met its objective of enabling some judgement as to the likely efficacy of various preventive measures to be more easily arrived at, it has not lead to any clear or immediate directives for action. This is unlikely to be the result of asking the wrong questions or dealing with inappropriate variables because the projects undertaken had seemed to be among the more promising in regard to preventive implications (see Chapter 1). Nor does it seem likely that greater success would have resulted from considering vandalism, not as a problem requiring its own solutions, but as symptomatic of a wider problem of 'social malaise' which must be tackled simultaneously on many fronts. But crime and so-called social malaise are not coterminous (Shaw, 1975) and vandalism itself is by no means confined only to the poor and deprived parts of cities. Further, as argued in Chapter 5, the situational determinants of vandalism may be quite different from those of other kinds of crime and may consequently imply the need for different forms of preventive action.

Rather than being concerned too narrowly with vandalism, the problem would seem to be rather the reverse: in assessing preventive measures the fact that vandalism encompasses a wide range of behaviours and, more particularly, a wide range of targets - schools, buses, housing estates, telephone boxes - has tended to be overlooked. But it has become increasingly clear that preventive options cannot be considered in isolation from the administrative and wider social contexts in which they must be developed and that these contexts will vary with the different kinds of target. In each case, it must be clearly understood for whom the particular form of vandalism is a problem, who has the responsibility for taking preventive action, what incentives there are to do so, and what are the constraints. The research undertaken was not designed with these considerations in mind and therefore some of the information needed for the formulation of realistic preventive measures is lacking.

In very general terms, however, it is clear that the responsibility for taking action will usually fall upon some such person as a local housing, bus company, or telephone manager who will have a limited variety of options at his disposal. Each of these must be assessed in terms of the effort needed to implement them, their cost, and their effects upon things other than vandalism. Since in most cases repairs for vandalism will constitute only a small proportion of the main-

tenance costs, the preventive measures must also be set in context of the total effort devoted to maintenance.

Not only, therefore, will solutions have to be sought separately for vandalism involving different targets, but also the process of assessing their feasibility in respect of a particular sort of vandalism may have to be repeated in different settings and localities. Vandalism on buses in industrially-deprived areas may be solved by providing buses with conductors, but in areas where wages are higher, it may be better to use stronger materials in construstion or to provide drivers with radios on which they can summon police assistance. In general, what we need to do is to match our understanding of factors contributing to a particular kind of vandalism with an analysis of the practicability of the various ways of preventing it.

The means by which such a fit between research and action might be achieved in the crime prevention field have been under consideration for some time within the Home Office. Last year, a working group set up to broaden the base of Home Office crime prevention activity, proposed the development of a new approach to crime prevention problems (which it described as the 'situational' approach[1]). The core of this approach is a technique for identifying and selecting measures to prevent a given, highly specific, form of crime. In barest outline, it involves

(i) A systematic analysis of the situations in which the crime occurs in order to establish the conditions giving rise to or permitting the offence.

(ii) The identification of measures which could block or remove these conditions.

(iii) An assessment of the practicability, likely effectiveness, and costs of each of the preventive measures identified.

(iv) The implementation of the most promising measure or combination of measures in such a way as to permit their evaluation.

Further work is now in hand to apply the working group's ideas on the ground. As it happens, school vandalism has been chosen for the demonstration project which is to take place in Manchester. The working group recognized that a considerable amount of information is needed about a particular problem in order to undertake a situational analysis and it is hoped that the research described in the body of the present report will provide some of the necessary data for this work in schools.

In conclusion, the most general lesson to be drawn from the experience reported here may be that research which is intended to have practical implications for prevention needs to be approached differently in the future. Such research could

1 It is important to note that the use of the term 'situational' by the working group is considerably broader than in the present report.

well prove more useful for prevention when it is designed with a proper understanding of the context in which action will usually have to take place, if it is to happen at all. Such an understanding may be provided through application of the 'situational approach'. In this context there are two main roles for research: first, to fill the gaps in information identified in the early stages of the situational analysis and, subsequently, to evaluate any preventive action that is taken.

Appendix Regression analyses for study of London housing estates

REGRESSIONS ON THE TOTAL SAMPLE OF 285 BLOCKS

REGRESSIONS ON THE 170 'HIGH' CHILD DENSITY BLOCKS

REGRESSION ON THE 115 'LOW' CHILD DENSITY BLOCKS

TACKLING VANDALISM

N.B. Many different variables interact to produce the rates of vandalism calculated from observed and recorded data and multiple regression indicates which particular variables are most influential. Each vandalism measure was regressed against different sets of the independent variables (for instance child density, amount of landscaping, age of block). As a consequence of correlations between some of the independent variables the results from regressions vary considerably depending on which factors are included in the analysis; the 'sets' presented here are those where all the independent variables were included. Only those variables which made significant contributions ($p<.05$) are listed, unless otherwise stated. The possibility, of course, always remains that other unmeasured variables are influencing the results in unknown ways, and that different results would be obtained with a different sample of estates.

REGRESSIONS ON THE TOTAL SAMPLE OF 285 BLOCKS

Table Al
Regression of observed vandalism

Independent variables		Partial correlation
Child density		.36
Number of dwellings in the block		.35
Amount of glazing in the entrance		.26
Amount of landscaping		-.1 4
Multiple correlation	.617	

Table A2
Regression of the unit rate of recorded vandalism

Independent variables		Partial correlation
Child density		24
Play facilities		-15
Amount oflandscaping		- .1 4
Multiple correlation	.457	

Table A3
Regression of rate of damage to dwellings

Independent variables		Partial correlation
Child density		26
'Newness' of the block		-.2 6
Play facilities by the block		.l8
Number of dwellings in the block		-.1 4
Multiple correlation	.451	

Table A4

Regression of rate of damage in ground-floor communal areas

Independent variables		Partial correlation
Storey height		-33
Chile! density		.16
Privacy ratings on layout		.14
Multiple correlation	.504	

Table A5

Regression on number of call-outs per lift for lift access blocks

Independent variables		Partial correlation
Child density		.27
Amount of glazing in the entrance		--.22
Multiple correlation	.430	

REGRESSION ON THE 170 'HIGH CHILD DENSITY BLOCKS

Table A6

Independent variables		Partial correlation
Total number of children in the block		.26
Amount of glazing in the entrance		.25
Play facilities by the block		_ 18
Amount of landscaping		-.19
Storey height		_ 17
Multiple correlation	.541	

Table A7

Regression of the unit rate of recorded vandalism

Independent variables		Partial correlation
Child density		-3l
Multiple correlation	.432	

Table A8

Regression of the rate of damage to dwellings

Independent variables		Partial correlation
Amount of landscaping		—.26
Play facilities by the block		.21
'Newness' of the block		—.16
Multiple correlation	-455	

Table A9
Regression of the rate of damage in ground-floor communal areas

Independent variables		Partial correlation
Storey height		.28
Privacy rating on layout		.16
Multiple correlation	.434	

Table A10
Regression on number of call-outs per lift, for lift access blocks

Independent variables		Partial correlation
Child density		.35
Multiple correlation	.505	

In the high child density sample, child density rather than the overall number of children continued to have the strongest influence on the overall rate of vandalism and damage to lifts.

REGRESSION ON THE 115 'LOW' CHILD DENSITY BLOCKS

Table A11
Regression of observed vandalism

Independent variables		Partial correlation
Entrance-way a 'through route'		•29
Entrance-way giving resident access only		.28
Number of dwellings in the block		.24
Total number of children in the block		.24
Multiple correlation	.722	

Table A12
Regression of the rate of damage in ground-floor communal areas

Independent variables		Partial correlation
Storey height		.40
Newness' of the block		.22
Amount of glazing in the entrance		.22
Total number of children in the block		.21
Multiple correlation	.609	

Because rates of damage to dwellings in the low child density sample were very low, no regression was done on this measure. In the low child density sample, unit rates of vandalism were generally low and no independent variable was found to be significantly correlated with them. Similarly, in the regression on lift damage, none of the correlations were significant.

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