

CRIME PREVENTION AND THE DESIGN AND
MANAGEMENT OF PUBLIC DEVELOPMENTS IN AUSTRALIA:
SELECTED CASE STUDIES

Report of a research project funded by the
Criminology Research Council, Canberra

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September, 1982.

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ACKNOWLEDGEMENTS

This report was made possible by a grant from the Criminology Research Council, Canberra. The views expressed, however, are those of the author and not necessarily those of the Council.

Special thanks are due to Marie Mune, Head of Social Planning, and to Dr. Richard Nies, Head of the School of Social Studies, South Australian Institute of Technology. Wendy Sarkissian was the co-director of this research project and has contributed extensively to its design and execution. Thanks are also due to David Biles, Assistant Director (Research), Australian Institute of Criminology (Canberra) and Peter Grabosky, formerly Director, South Australian Office of Crime Statistics.

A list of people interviewed is included in an Appendix to this report.

I INTRODUCTION

THE RESEARCH PROJECT

This report is one of a series presenting the results of a research project which investigated the planning, design, and management of community facilities and other public developments with attention to crime prevention. The research was conducted in the Social Planning and Research Unit, School of Social Studies, South Australian Institute of Technology, Adelaide. Research activities involved three main components:

- (1) An extensive review of the literature in crime prevention and the design and management of public developments.
- (2) Structured and unstructured interviews on crime prevention with architects, planners, and a variety of public administrators.
- (3) Case studies of numerous public developments.

This report summarises a number of carefully selected case studies of public developments and community facilities with respect to crime prevention. The primary context for these case studies is that of "environmental" crime prevention, that is, those aspects of the physical environment which may hinder or encourage crime in an area. Environmental crime prevention does not involve simply the physical design of facilities, but the management of facilities as well. Thus we are concerned with three separate, although related aspects of public developments: their planning, their physical design, and their management. These three elements are constantly interacting and changing over time. Their relation to crime prevention (and one another) is a complex one and is the subject of this report.

ENVIRONMENTAL CRIME PREVENTION

The field of crime prevention and environmental design is relatively new. It could be said to have begun in 1961 with the publication of Elizabeth Wood's monograph Housing Design: A Social Theory (1961). Wood provided design guidelines for low-income housing, and promoted the concept of social control of residential areas by resident surveillance, which had been suggested that same year by Jane Jacobs in The Death and Life of Great American Cities (1961). Jacobs' book was the first influential work to suggest that active street life could hinder the opportunities for crime. In 1968 Shlomo Angel extended the concept by proposing some physical configurations to deter crime and coined the term "environmental crime prevention" (Angel 1968). Not until Oscar Newman formulated the notion of "defensible space" (Newman 1972), however, did the new approach to crime prevention begin to receive serious attention. In large part due to U.S. government-funded research, the mid and late 1970's saw a veritable explosion of writing about crime prevention, including William Brill's concept of "comprehensive security planning" (Brill 1979); Seymour Rosenthal's "turf reclamation" (Rosenthal 1975); Richard Gardiner's "environmental security planning" (Gardiner 1978); and Westinghouse Consortium's "crime prevention through environmental design" (Rau 1975). Other American authors such as C. Ray Jeffery (1977) and Thomas Reppetto (1974) have been widely quoted as well.

In the United Kingdom Colin Ward's (1973) edited collection Vandalism has proven a milestone in the field. The British approach has generally been to investigate the applicability of concepts like "defensible space" (see Wilson 1978), so as to develop certain design or management-oriented crime prevention programmes such as NACRO's Safe Neighbourhood's Unit or the Department of the Environment's Priority Estates Project (see Department of the Environment 1981).

The paucity of Australian research and writing in these areas is now widely acknowledged. We suggest some reasons for this in our report Crime Prevention and the Design and Management of Public Developments: Selected and Annotated References From Australia, the United States, and the United Kingdom (Perlgut 1981a). This bibliography describes in detail all of the citations listed above, plus numerous other sources.

The relative lack of Australian experience in environmental crime prevention has positive and negative consequences. On the one hand, it means that certain basic planning, design and management mistakes are being made repeatedly. Later sections of this report detail some of these mistakes. But the lack of experience can be good for research, as we have easily been able to observe and record the crime prevention problems, failures, and successes of planners, designers, and managers. These people have received no special training or information on crime prevention besides their "common" professional knowledge or occasional advice from the police. In other words, we have been able to begin to make some determination on how current planning, design, and management practices deal with issues of security, vandalism, and related social problems. We hypothesised that the application of environmental crime prevention theories to public development would be a fruitful means of analysis, and we were not disappointed.

ENVIRONMENTAL DETERMINISM AND CRIME PREVENTION

An interesting story came to light during the course of this research. It was told by a London social worker employed by MACRO (The National Association for the Care and Resettlement of Offenders) about a public housing estate in south London. In this particular estate a major pedestrian corridor ran through the estate. On one side of the corridor, bathrooms of housing units were located in a standard way - off a hallway near the bedrooms. On the other side of the corridor however, for reasons known only to the designer of the estate, bathrooms were located directly off of the

living rooms (lounges). Having a bathroom off the living room was seen by residents as far less desirable for reasons of privacy and not having children trooping in to use the bathrooms while adults were "entertaining". The result was that the less desirable bathroom-off-living room units had a much higher turnover than the other units. This resulted in a tenant population in the less desirable units of those who had no choice as to where they wanted to live. Generally they were from the lower income and social class groups with an increasing proportion of blacks (West Indians). This produced an interesting and fascinating split. One side of the corridor housed mostly working and middle class whites. On the other side were mostly lower class blacks. Not surprisingly, the less desirable side of the corridor also experienced higher rates of crime, family breakdown, and other social problems.

At first glance this story could be taken as the environment directly influencing behaviour - less desirable units attract more "difficult" families, who, in turn, act differently. Leaving the analysis at this point is a severe mistake, however, for it ignores the other "intervening" actors in the process. The role of housing managers was paramount: their transfer policies may have allowed and encouraged certain tenants to leave the less desirable units, while their allocation policies may have proceeded to "dump" more "difficult" families in the less desirable units. Without understanding the intervening variables we can easily draw incorrect conclusions.

This story illustrates well Herbert Gans' (1968) concept of the "potential" and the "effective" environment. He argues that a development or facility which has been planned or designed is only a potential environment; the social system and culture of the people who will use it determine to what extent the facility becomes an effective environment. "The effective environment may thus be defined as that version of the potential environment that is manifestly or latently adopted by users" (Gans 1968:6).

The design of the housing estate described above (the buildings and the relationships of the spaces within) constituted the potential environment; the social system and culture of the users and managers determined the actual form of the effective environment.

Gans does not try to deny that the physical environment influences human behaviour. Rather, his aim is to insert between these two concepts the idea of the "effective" environment, so that instead of arguing "Does the environment influence behaviour?" we discuss "when, how, how much, and with what effects?" does this casual influence occur (Gans 1968). Many architects and planners continue to believe or hope that the effective environment will coincide exactly with the potential environment.

An intermediate position in the environment and behaviour discussion is one that design can facilitate human behaviour (Ittelson 1978). Curtis and Kohn (1980) point out the importance of environments being congruent with existing or desired community value systems. In this context environmental design can assist individuals and communities by supporting some social control mechanisms through psychological or symbolic cues. By truly understanding how social control processes operate, we can utilise design to promote fundamental "prosocial" crime prevention behaviour (such as surveillance and neighbouring support practices). Invariant design guidelines are therefore not possible, as individuals and communities will always have slightly differing prevailing perceptions, norms, and values. We are, however, able to establish certain principles of crime prevention with which to evaluate the planning, design, and management of facilities.

DESIGN, PLANNING AND MANAGEMENT

Our original research proposal was to study the "planning and design" of public developments with regard to crime prevention. We hope that the foregoing discussion of the "potential" and "effective" environments has clarified that whether or not a facility experiences crime problems is dramatically influenced by two key actors: management and users. It is only when these actors have "intervened" in an environment that it becomes truly "effective". Because of its front-line position, the management of a facility or development has the most direct and immediate responsibility for security measures (see Perlgut 1981b). Management influences the safety of the environment, not only by security "planning" and contact with police and other agencies, but also by its own policies and practices. These were important reasons for deciding to make management a "focus" of our research. Perhaps the overwhelming reason, however, follows from the fact that managers are the ones who experience the "crime" problems directly, through increased costs, direct confrontation, or other worries. Indeed, it is also managers - those in direct daily contact with users and facilities - who express greatest concern about crime. For them it is not an abstract concept but often a constant and costly problem.

As Gans' concepts also imply, it is virtually impossible to separate the design of a facility from its management when it comes to environmental crime prevention. A design creates an environment and a context in which a manager must operate. A manager will, however, make small - and large-scale decisions which "effectively" modify the environment for users. Planners and designers often underestimate the ease of and the extent to which managers can change "their" designs and plans.

The initial planning decisions of a public development, the specific site and physical design decisions, and the ultimate management of the development are all related and affect one another. The case studies of this report do not attempt to evaluate these three areas in isolation. When it comes to the exacerbation or hindrance of potential crime problems, all are interdependent.

SCOPE OF THE CASE STUDIES

The original research ideas for this project proposed to undertake two case studies of large-scale public developments in South Australia: the Parks Community Centre and The Hoarlunga Regional Centre. While we have examined these two developments, we have also extended the scope of the research further to include numerous public housing estates in Adelaide and Melbourne and a number of public libraries, swimming pools, and community centres in the City of Salisbury (South Australia).

The inclusion of a number of facilities has greatly broadened the scope of this research and has provided the following benefits in terms of diversity of the case studies:

1. Age. We have researched developments ranging in age from almost thirty years old to those largely completed, used and "occupied" although still under some form of construction.
2. Size. Developments vary in size from simple one-building libraries and small (40 unit) housing estates to multi-building community and recreation centres and large (2000-plus unit) high-rise housing estates.
3. Range of use. We have included public libraries, community centres, recreation centres, shopping centres,

public swimming pools, public housing estates, and even a transportation interchange.

4. Type of Administering Body. All "administering" bodies are governmental or quasi-governmental organisations, except for one mixed public/private development.

5. Users. The large majority of developments examined are in middle - to low-income communities, although many of these communities exhibit a wide range and type of users.

6. Location. We have examined developments in both inner-city and outer-suburban locations and in two states (South Australia and Victoria). Although not included in this report, we have also conducted research in Sydney, Canberra and London as part of this project.

Because of the wide range of developments studied, we have been able to interview a large number of designers, planners, managers, and other professionals. We are also in a position to make observations and comments comparing large and small developments, different managerial styles, and different forms of building and design. Furthermore, undertaking research in two states helps to ensure the Australia-wide relevance of our findings and conclusions.

We have conducted different levels and types of analysis in each of the case studies included in this report. The nature of the investigation into each case study depended on the facility (or facilities); its problems, management and personnel; and the type and amount of information which was readily available.

A majority of the developments we have surveyed are public housing estates. This concentration on public housing has occurred for a number of interconnected reasons:

1. Residential use comprise the great majority of buildings and urban land use. This is also appropriate given the widespread concern for the crime of residential burglary (break-ins).
2. Governments, through state and territory housing authorities, have a massive financial investment in public housing. The success of these estates is, therefore, an extremely important aspect of public welfare policy.
3. Governments can have a direct influence on what happens in public housing estates. In contrast to private residential areas, both design and estate management policies can directly affect the safety of public housing areas.
4. Public housing communities are generally lower income communities. Their residents are more vulnerable to crime and fear of crime. Lower income communities are also more vulnerable to unemployment, which has direct, although complicated, links with crime.

CASE STUDIES: FRAMEWORK FOR ANALYSIS

Data for the analysis of case studies have been collected through four methods:

1. Interviews, both formal and informal, with designers, planners, and managers of the developments under study.
2. Documents collected through research and other contacts.
3. Observation of the facilities or developments. This includes location and physical design, user behaviour and behaviour "traces", and management behaviour.
4. In some cases, participation in crime prevention activities has occurred. In some cases this has permitted

a "participant observer" approach to research (see Gans 1982). In other cases this has allowed us to make recommendations on environmental crime prevention and work with administrators regarding their implementation, and to analyse the process. In these cases we have followed true "action research" techniques.

Two different frameworks for analysing the environmental crime prevention aspects of facilities have been employed. The first is the concept of "manageable space" (Perlgut 1982), a theory of concerted and coordinated crime prevention planning originally developed for public housing estates. The other framework is that of "site security analysis" (Brill 1979), which identifies the features of a physical environment which may lead to crime and fear of crime. Both of these concepts draw heavily on the ideas of Oscar Newman's "defensible space" (1972; 1976), Jane Jacobs (1961), and Shlomo Angel (1968), among others.

Manageable Space

While manageable space advocates a number of crime prevention strategies (see Perlgut 1981b and 1982), two are deemed most important and emphasised in this report: management and design. The role of management in environmental crime prevention cannot be overemphasised: it is the key actor in any crime prevention techniques employed in existing facilities or developments.

"Unmanageable space" occurs when "hard" architecture is combined with "hard" management. Hard architecture, a term coined by Robert Sommer (1974), describes architecture which is impermeable, designed to be resistant to human imprint, with no connection to its surrounding neighbourhood. Hard architecture provides little possibility for experimentation, change, or creative involvement with the environment. Hard management is rigid management; it

assumes residents or users do not want to take responsibility for their environments, or that they are unable to do so. Therefore, maintenance and security can be achieved only by strict regulations or by the operations of a paternalistic centralised management. In operation hard management often means the exclusion of certain users, user groups, or activities from a facility or development.

By contrast, "manageable space" advocates the interplay of "soft" architecture and "soft" management. Facilities characterised by soft architecture are responsive to residents: instead of a hard resistance to human imprint, the design welcomes and reflects the presence of human beings. The theory is based on the belief that the best sort of security comes from occupants or users themselves (Sommer 1974). Soft management policies welcome user involvement, assuming that most users or residents can learn to accept and even seek responsibility and exercise high degrees of imagination and creativity in participating in their environment.

Site Security Analysis

Site security analysis was developed by American architect William Brill (Brill 1979), as part of his "comprehensive security planning" concept. His criteria are used to determine the extent to which a site's design and development contributes to the vulnerability of residents, users, or the facility itself. The criteria aim to complement other security evaluation techniques, acknowledging that site design is only one of the factors contributing to a criminal act. The six criteria of site security analysis are:

- (1) Unassigned or ambiguous space: Spaces which administrators, managers, residents, or other individuals or groups have not been able to claim for their own use because the spaces lack environmental cues suggesting how they are to be used and controlled.

(2) Penetrability: How access to a site or property is structured and controlled.

(3) Territoriality: The extent to which a development's design and layout encourages management, residents, or other groups to take control of the site.

(4) Opportunities for surveillance: The extent to which activities occurring in public and semi-public spaces can be observed.

(5) Design conflicts: Occurring when two incompatible activities are located next to one another without sufficient separation, or when they are forced to compete for the same space.

(6) Community influences: How the location of the site and features in the surrounding area affect the security of the development.

Outline for Case Studies

Each of the case studies in this report will be presented according to the following format:

1. Introduction and researcher involvement: In what capacity was the facility studied, history of involvement, and general background.
2. Description of facility: Location, age, size, administering agency, and range of use and users.
3. Manageable space evaluation: Hard architecture or soft architecture, hard management or soft management.
4. Site security analysis: Unassigned space, penetrability, territoriality, surveillance, design conflicts, and

community influences.

5. Crime and security problems: Problems experienced by the facility.

6. Crime prevention activities: Were any actions taken in an attempt to prevent crime and vandalism problems, results of these actions, and analysis of the results.

7. Conclusions: What can we conclude from the development studied, especially in relation to environmental crime prevention.

Link With Criminal Behaviour

In the application of the above factors, the question arises as to their empirical link with the incidence of criminal behaviour. There are no absolutely definitive studies proving this link, but some recent research in the United States and the United Kingdom have shown that the management and structuring (design) of the physical environment can affect crime rates.

Two studies by the Home Office Research Unit in London (Wilson 1978 and Haynew et al 1979) focus primarily on issues of surveillance and vandalism. Extensive survey research was undertaken in numerous public housing estates. The studies generally conclude that all of the elements of "defensible space" should be incorporated in future housing estates as these elements show a consistent pattern of helping to reduce crime.

The American social psychologist Robert Sommer, in his book Tight Spaces: Hard Architecture and How to Humanize It (1974), provides some of the most convincing evidence about avoiding "hard architecture". Survey work by Oscar Newman (1972, 1976, 1980, and with Karen Franck 1980) show an extensive correlation between these factors and crime prevention.

In an excellent review and categorisation of empirical literature on crime and the built environment, Herb Kubenstein et al (1980) conclude that the design principles of environmental crime prevention are virtually all inherently desirable, whether or not crime is reduced. They feel that measures directly linked to security - hardware, control of access, etc. - have clearly proved their worth. Measures tied to hypothetical constructs - territoriality, social cohesion efforts, etc. - have not been unquestionably proven as effective. Hypothetical constructs of security appears to be most useful when combined with the traditional measures of environmental crime prevention.

In their proposals for additional research, Kubenstein et al (1980) feel that studies of "multi-strategy" crime prevention would prove particularly useful. In the case studies of this report we have concentrated on the planning, design, and management of numerous facilities. This form of comprehensive (or "multi-strategy") investigation is ideally suited to produce results that are utilisable for planners, designers, managers, and other policy-makers.

II VANDALISM: THE ENVIRONMENTAL CRIME

THE ENVIRONMENTAL CRIME

Environmental crime prevention and the environmental aspects of crime have varying degrees of applicability to different crimes. A certain proportion of building break-ins, assaults, and thefts can be prevented by environmental means. Relatively few rapes and murders can be prevented by this means, in large part because of the nature of such crimes: often there is a victim/offender relationship beforehand. In addition, the extremely violent nature of these crimes means the perpetrators are probably less easily affected by the psychological and symbolic cues that environmental crime prevention partly relies upon.

Perhaps the ultimate "environmental" crime is that of vandalism. This is so for two reasons:

1. The nature of vandalism (the "illegal destruction of, or damage to someone else's property") is that the crime is always against some aspect of the physical environment.
2. Those who commit vandalism are often spurred on to it through "environmental" reasons. They will be reacting to the environment, whether it be the physical, managerial, social or economic aspects.

Aspects of the physical environment are crucial. Pablant and Baxter (1975) in an article "The Environmental Correlates of School Vandalism" showed that factors such as street-lighting and local resident surveillance were key elements in the prevention of school vandalism. In South Australia, both the Department for Community Welfare (Community Welfare 1978) and The Education Department (Van Der Touw 1976) have sponsored studies which have reached similar conclusions.

6. Vandalism through hard use happens when materials or fixtures wear out or cannot bear the stress of heavy wear. Children's play equipment is often subject to such "vandalism", which is generally not really vandalism at all, but rather reflects the need for maintenance and replacement. Nevertheless, lawns worn out by walkers, tennis nets damaged by over-zealous players, and doors breaking after being slammed, are often categorised as subject to vandalism.

Other forms of vandalism are perhaps somewhat less relevant to our study. Institutions are among the worst culprits: the destruction of old neighbourhoods by urban renewal (or "redevelopment") goes far beyond the teenager breaking a shop window in both scale and social disruption. Certain cities are known for their systematic destruction of historic and other environmentally sensitive areas. Planners and designers become vandals when they begin to value their structures or edifices more highly than any other aspect of the environment. The Highways Department in South Australia in the past has demolished hundreds of houses along alignments of freeways which have never been built. The houses which occasionally remain are often left vacant, unmaintained, and are themselves the target for vandalism. But in this case it was the public agency, in its rush to demolish houses years ahead of any need for the land, which became the "vandal". And, as we have just pointed out, institutional vandalism has the ability to be far more destructive and consuming than any individual person could ever be.

To complete the picture, we should identify the nation-state as vandal, generally acting through wars and our modern-day ability "to bomb people back into the stone age", as a famous American once said of American intentions towards North Vietnam. The destruction of Coventry by Germany or of Dresden by the Allies during World War Two are good examples of "total vandalism". So, too, was the American bombing of Nagasaki and Hiroshima with nuclear weapons.

One of the most controversial points of the Neutron bomb is that it kills only people (and other living things), and leaves buildings intact: finally, a "vandal-free" nuclear weapon.

CHARACTERISTICS OF VANDALISM

Let us now return again to the subject and concern of this report: what then are some of the characteristics and patterns of vandalism? First of all, the property destroyed is more likely to be publicly owned than privately owned (Ward 1973; Sykes 1979). Public property provides greater opportunities, is anonymous, has greater symbolic value, and is de-personalised, belonging to "them" - the government, the state, the faceless institutions. Physically, vandalised property tends to be derelict, incomplete, or badly kept. Construction sites are favourite targets. A poorly maintained property not only "invites" vandalism through the apparent lack of care, but also does not "show" acts of vandalism because of the existing state of disrepair or deterioration.

But what of the "management" and "social" characteristics? Areas of high transiency and instability will experience more vandalism: neighbourhoods of renters rather than owners, for example. Similarly, schools in which the administration and teachers are unpopular or insensitive are particularly attractive targets. Facilities which have rapid staff turnover, low staff morale, and little identification with users are especially vulnerable. Other key factors include overcrowding, staff insecurity and dissatisfaction, perception of a "lack of care" on the part of the senior management, and once again: poor maintenance and the failure to repair damages.

We should note two important behaviour patterns regarding vandalism: offenders are young, usually male, and generally between ages ten and twenty (Community Welfare

1978); and vandalism is almost always done in a group, rarely alone. While different ages "do" vandalism, their motivations, targets and results also vary: younger ages will commit vandalism more through "play" or accident; older teenagers more through boredom, disaffection, frustration, anger, desire for peer approval, or a combination of these.

The importance of the environmental context of vandalism needs to be emphasised: the type of facility, the location of the facility, the ownership of the facility, and the maintenance. Just as some vandalism occurs through play, the total lack of or inadequate provision of proper play facilities for children will often result in their finding their own "fun" in less socially sanctioned ways. If we assume that children need to manipulate the environment, to engage in "fantasy" play, and to experience "adventuresome" play, it follows that when we do not provide for this, one of two things may happen. Either the play will occur in areas not intended to support it (in flower gardens and car parks, for example), or children may become sufficiently frustrated and release their feelings in less-than-positive ways: vandalism, for example.

CONTROL AND PREVENTION

Stanley Cohen (In Ward 1973) presents us with six different methods of vandalism prevention and control:

1. Defeatism: What Can You Do? is the attitude of writing off costs or not bothering because the problem is either too trivial or the enforcement or preventive measures are too hard to apply. This is often rationalised by saying that the costs of repair (maintenance, monitoring, etc.) are greater than the costs of the vandalism itself.
2. Deflection: understand and channelise strategy tries to create safer, harmless, more constructive alternatives for the behaviour. One notion is to use "graffiti walls"

(such as the one in Melbourne's City Square) or real "adventure playgrounds" for children.

3. Utilitarian prevention: protect and detect is perhaps the most widespread approach to the problem. The strategy is to protect the property by warning off offenders or increasing the chance of detection. This pragmatic approach simply tries to "save the facility", whether it be by strengthening equipment, using warning signs or alarms, employing guards, and installing stronger hardware.

4. Education and publicity has as its basis the notion that if only people were more aware of the seriousness of the problem (cost, dangers, etc.) they would do something positive about it. Such campaigns are often directed at the "public at large" or specifically to potential "offending" groups.

5. Deterrence and retribution is perhaps the most common public reaction: provide better police detection and stiffer court sentences. The responsibility here shifts from the public (as in #4 above) to the police and the courts.

6. Primary prevention advocates a "striking at the root causes" of vandalism. This is sometimes a vague concept, but generally revolves around erasing unemployment, stemming the "tide of permissiveness", and countering family breakdown.

It is interesting to note where "environmental" crime prevention fits into these six categories. An "environmental" approach emphasises the deflection (# 2) and utilitarian (# 3) strategies. This approach encompasses the design and management of the physical environment. Defeatism (# 1) is generally not acceptable strategy for designers, planners, and managers. Education (# 4) is a broad strategy, limited

in effectiveness by the need to determine an appropriate target group. Ironically, public education campaigns have sometimes coincided with dramatic increases in vandalism (Cohen in Ward 1973). Deterrence and retribution (# 5) is a strategy which some property planners and managers can influence, but usually only indirectly through police liaison or a policy of strict prosecution of all offenders who are caught. This is a difficult strategy, however, and its effectiveness is largely dependent on the criminal justice system's effectiveness in influencing vandalism behaviour. This effectiveness is the subject of extensive debate. Primary prevention (#6) does not lead us to direct programmes for action. While it is an important component of comprehensive crime prevention programmes, it gives little guidance for designers, planners, or managers. It does underline, however, the necessity for locally based efforts of crime prevention to acknowledge broader scale programmes as well.

The six strategies of vandalism prevention outlined above are applicable in a broad way to other crime and security questions, particularly those concerned with building security, such as break-ins and theft. Later sections of this report detail some crime and vandalism prevention strategies, which we can analyse and evaluate in the light of this discussion.

VANDALISM: THE PUBLIC ISSUE

The June 10, 1980 issue of The Bulletin reported the results of the Morgan Gallup Poll, which found that four out of five (81 percent) of Australians think vandalism is a major problem. Only 15 percent saw it as a minor problem, one percent as no problem, and three percent could not say. Interestingly, the concern with vandalism dropped with higher levels of education - to only 57 percent of university-educated respondents. The Poll revealed a universally high opinion that vandalism is increasing in

Australia: 85 percent of those polled. This varied little by sex or education of respondent.

People were asked whether they thought the government should take more action to stop or limit vandalism, or whether the present laws were sufficient. Of those surveyed, 67 percent felt the government should take more action, 18 percent thought government action was sufficient at present, and 15 percent could not say. It is interesting to note a fairly consistent response to this question across all age groups, except for 14 to 17 year olds (the youngest group included). The "young teenagers" favoured more government action by 60 percent to 12 percent. There are several explanations for this response: perhaps young people feel most threatened by the actions of vandals, many of whom are their age peers. It also may be that this group is a more "intense" user of the public physical environment (not having drivers' licenses and thereby more dependent on public transportation, for example), and thus more threatened by vandalism.

A selection of recent articles on vandalism in the Adelaide Advertiser from early 1981 illustrates some public (and media) concerns on vandalism:

"'School Watch' to beat vandals" appeared on January 24, 1981. This article reported that the State Education Department had arranged extra patrols by police, two security firms, and its own security section for about 65 schools. Announcing the increases, the department's senior security officer stated: "We have found the last two weeks are the worst because children may be bored or are not happy about going back to school". Most of the damage was done by children aged from about 13 to 17 years, according to the department spokesman.

"History Wasted: vandal war ends" appeared on March 11, 1981. This article described an historic (1851) chapel which had to be demolished by explosives because it could

not be protected against vandals. Despite the Munno Para District Council's expenditure of \$500 on fencing and floodlighting, vandals had gutted the building, sprayed it with graffiti, gouged holes in walls and desecrated graves and headstones in the chapel cemetery. A firm of mining engineers was contracted to dynamite the church, although the firm's managing director reported that they did not enjoy it as "it's not the sort of work we like to go around and do".

"Courts blamed over vandalism" reported on February 3, 1981. A delicatessen owner and spokesman for shopping centre owners at Elizabeth Field claimed that "leniency in the juvenile courts" had cost shopowners thousands of dollars in vandalism repair bills. The response of the State Attorney General, Trevor Griffin, to this charge was reported the next day: "the sentencing policy is only one matter, and the problems reported are the result of many causes." The delicatessen owner disagreed with Mr. Griffin "and challenged him to an 'open debate' on juvenile court leniency."

Perhaps one of the most unusual cases of vandalism reported is the BUGA UP group (Advertiser July 16, 1980). BUGA UP stands for "Billboard Utilising Graffititists Against Unhealthy Promotions". The group publishes its own catalogue (costing 30¢) showing examples. Reportedly BUGA UP is very active in the eastern states, "where it is estimated that organised defacing of signs costs outdoor advertising contractors about \$250,000 a year".

A famous Adelaide court case (Advertiser February 26, 1981) has given not a little encouragement to such efforts. An Adelaide chiropractor was caught while spraying graffiti ("refacing") a cigarette billboard. He told the court that his motive had been "his commitment to preventive medicine". Fortunately for this cause, the sentencing judge was a well-known anti-smoker, who sentenced the chiropractor to the cost of replacing the poster without recording a conviction.

In his statement the judge acknowledged that the offence had evidently not been committed out of wanton malice but under "a sincere belief that the product advertised by the poster was disadvantageous to health".

The "school watch" for vandalism mentioned above is a good example of a combined utilitarian/deterrence approach to vandalism. Increased police and private guard activity is the first response from agencies such as the Education Department. The demolition of the historic church is an excellent (although highly unfortunate) example of defeatism: it was too difficult to prevent vandalism so the "target" was removed altogether. The shop owners viewed vandalism solely in the context of deterrence/retribution: the courts not doing their jobs. Perhaps the chiropractor who defaced a billboard is a good example of "the courts not doing their job". It is more accurately an excellent example of ideological vandalism, and symptomatic of the real difficulty people have in preventing vandalism.

SUMMARY AND CONCLUSIONS

One of the most fascinating aspects of the vandalism cases just cited was their lack of anything resembling an "environmental" approach to the problem. This is not only due to the choice of examples presented, but also for some very understandable reasons. Foremost is the fact that police, lawyers, judges, probation officers and other criminal justice professionals rarely, if ever, have any training in understanding the nature of the physical environment. In most serious incidences of vandalism, two things happen immediately: the "kids" are blamed and the police are called. Some "hardening" of the "targets" may then occur.

It is here that the concepts of "hard" and "soft" management may provide some useful explanation. Management which welcomes user involvement (although still enforces

rules and is firm) is one which tends to attract fewer problems, including vandalism. Shop owners and the property and facility managers often complain about vandalism, but rarely understand it. Nor will many of them understand that the "message" of vandalism (Becker 1977) are directed primarily at them. As an expression of frustration and despair, vandalism is an important message to management: it may be a reliable indicator of the alienation which shoppers, students, residents or any "users" feel towards their environment. In fact, vandalism may be the only means of communication for many disaffected users.

Unlike other types of crimes, which can usually be explained in terms of their economic motivation, vandalism appears to be unreasonable and senseless. Much of what we often term "vandalism" is that which is destroyed by children's play, by hard but legitimate use, and by alteration of facilities to meet user needs without sanction, in other words, non-malicious damage. By contrast, the conditions under which malicious property damage occurs are clear: the property is usually public, and is, therefore, more anonymous and of greater symbolic value; the property is depersonalised and seen as "theirs" (the management's, the "system's", etc.); and the property tends to be derelict, incomplete or badly kept (Becker 1977; Ward 1973; Wilson 1977).

What are the lessons for environmental crime prevention from vandalism? First, we must recognise that vandalism is not a "unitary" crime, and that it stems from a wide range of causes undertaken by a variety of perpetrators. Perhaps one of the greatest difficulties is with buildings which do not fulfill their users' needs: they become subject to vandalism either through frustration, anger, or attempts to modify the facility. Good design is important, as are sturdy materials, good maintenance, rapid completion of building projects, feelings of community responsibility, and sensitive, non-confrontative, user-oriented management.

An environmental approach to vandalism prevention is not the only approach, but should be the basis upon which to build other co-ordinating strategies.

III COMMUNITY FACILITIES IN SALISBURY, SOUTH AUSTRALIA

INTRODUCTION

A total of four different community facilities were studied in detail in Salisbury, which is an outer-suburban council north of Adelaide. Researcher involvement began in July 1980 with an invitation by the Council's chief librarian to visit two branch public libraries with security problems and to make recommendations. Researcher involvement continued in October 1980 with an invitation by the City's Manager - Community Services to conduct a seminar (as part of the Council's "Workshop in Community Services") on problems of vandalism and security in the City. Extensive briefings with council staff were held and a highly successful workshop was held in November 1980, with over thirty-five council officers, elected members, and local police attending. Informal discussions continued in January and February 1981, and in March involvement continued with an address to the Council's Security and Vandalism Exercise (SAVE) Group, and technical assistance supplied to the City's Manager - Administrative Services. A second major presentation on security issues was given in May 1981 to the Council's Resources and Policy Committee, which consists of senior elected members.

CITY OF SALISBURY

The City of Salisbury is a rapidly growing low and lower-middle income community in the northern metropolitan area of Adelaide. It currently has almost 90,000 people in numerous widely scattered suburbs. A very high percentage of housing in the Council area has been built by the South Australian Housing Trust. A number of neighbourhoods consist of virtually all public rental housing.

During the course of our research, we visited over ten major Council-owned facilities. Four of these are described in detail in this report: the Ingle Farm Recreation Centre,

the Para Hills Library, the Salisbury North Community Centre, and the Salisbury Swimming Centre. We have also considered in some detail the Ingle Farm Library, the Para Hills Swimming Centre, and the central municipal building complex, although we do not analyse these three.

INGLE FARM RECREATION CENTRE

Description of Facility

The Ingle Farm Recreation Centre is a two-storey building located on a slight hill near the large Ingle Farm shopping centre and the Ingle Farm Community Health Centre. The recreation centre consists of two stadia (one large and one small), squash courts, a sauna and changing rooms, a child-minding centre, offices, a meeting room, and a meeting/party area. The residential neighbourhood in which the centre is situated is generally working/lower middle class suburban, although the immediate environs are dominated by the shopping centre. A wide range of recreation activities takes place, including roller-skating. The emphasis appears to be geared primarily to adult users, rather than teenagers and children. The Centre is owned by the Council, although a "Management Committee" is responsible for both policy and operational decisions. The relationship between the Council, the Management Committee and the Centre's manager (under Section 666C of the Local Government Act of South Australia) has not been clarified to the satisfaction of all concerned.

Manageable Space Analysis

Architecture

The Recreation Centre's architecture falls generally into the "hard" category. The building is big, squarish, and institutional-looking. The Centre is divorced from its surroundings, sitting alone with only lawns, access

roads and paths, and car parks around it. Relatively little vegetation "breaks" up this image. The seating outside the building is of a "sociofugal" nature - which does not encourage interaction between people, as compared to a "sociopetal" type of seating which does encourage interaction. The plaza immediately outside the entrance is of concrete and brick and has no shade; the only features are some unused concrete planter boxes.

The interior of the building is of "hard" materials - tile floors and brick walls. This is to be expected in a "recreation" facility, but the nature of long hallways and very few inviting areas for informal seating accentuate this feeling. The interior entry foyer was originally designed with no focus to it; as a result, users could just wander in without checking in at the registration desk. The management has designed and installed a set of very sensitively designed wooden barriers to focus entry to the facility. These have been softened further with a number of planter boxes.

Management

The management of the Recreation Centre takes a relatively "hard" approach to management. Our observations indicated curious potential users are often not made to feel welcome by many Centre staff. Perhaps the greatest problem with this approach is the attempt to prevent some teenagers from using the Centre, both from active discouragement and from not providing attractive facilities and programmes. Part of the key to this is who the management perceives of the "user" group of the centre; they do not take a fully "inclusionary" view.

Site Security Analysis

Unassigned or ambiguous space: The interior of the Centre is relatively well-defined and controlled. Exterior spaces are not well-defined at all; beyond the building's doors there are no cues suggesting how the spaces are to be utilised.

Penetrability: Access is controlled through one front-door entryway. However, exit doors throughout the Centre are fitted with a simple "panic bar" and are thus easily opened to admit people unseen by centre staff. These doors are often left open to increase ventilation in parts of the Centre, which compounds the problem. Uncontrolled access is also a potential problem in three other areas: ground-level windows, upper level doors accessible by an exterior stairway, and a number of skylights throughout the building.

Territoriality: As mentioned above, interior areas are well marked. However, the Centre's design does not allow for control over any exterior areas.

Surveillance: Surveillance of parts of the Centre is a recognised problem: not only the back exit doors mentioned above, but also the squash courts, sauna, and changing rooms, which are not located near to or able to be viewed by people in the offices located in the front of the building. Surveillance of the grounds on the Centre's exterior is also not well provided for.

Community Influences: The location near the Ingle Farm shopping centre and Community Health Centre is a convenient one for some users, but it also means the local area has an "institutional" feel. It has been suggested that historically teenagers used to "hang out" where the Centre is located and that their displacement because of the Centre has caused some problems.

Crime and Security Problems

The three main security issues appear to be illicit access through exit doors, illicit access through a first-storey entrance, and teenagers hanging out in front of the building committing acts of vandalism and harrassment. The first of these issues has been described previously. Management has already restricted the access through the first-storey entrance by building a higher wall protecting the stairway access.

The primary security concern is teenagers "hanging out". This is in part a reaction to the facilities and programmes available (or in this case unavailable) to meet their needs, in part a function of management attitude, and in part a function of building design and location. A great recent worry - which has since been fenced in - is an inappropriately designed and located planter box, which is next to and underneath an overhang of the building. Under cover and located near the entrance, it was an attractive "hang out" spot, to management's dismay - as teenagers often leaned against the windows located there, drank alcohol, threw dirt and stones, committed other minor acts of vandalism, and generally attempted to disrupt activities. The management, in conjunction with the Council's building and maintenance department, closed up the area and plan to plant it. They recognise that the teenagers "hanging out" will not go away, and are simply hoping to "channel" or locate this behaviour in less disruptive locations.

Conclusions

The Ingle Farm Recreation Centre is an excellent example of an "unmanageable space" which combined relatively hard architecture with a "hard" approach to management. Despite occasional acts of vandalism and petty theft, the primary security concern appears to be one of harassment and other disruptive behaviour. The building's design is an unfortunate one: an institutional-looking structure with significant problems of surveillance and access control. But perhaps the greatest failure of the design is the lack of any relationship between the building interior and exterior: all the more surprising in an active recreation centre. From a programmatic and activity point of view, it would be a good idea to extend activities into adjacent external areas, and perhaps fence off some of these areas for exclusive Centre use as well.

Given the relative lack of opportunities to change all but small-scale aspects of the design (i.e. better locks, higher walls, etc.), the real key to security problems here is the management. By operating in such a way as to be seen to exclude certain groups from the facility, the management has effectively shifted any potential problems from inside the building, where management has effective control, to outside the building, where management has virtually no control at all. A co-ordinated policy is called for of sensitively redesigning the grounds outside the building and providing activities and programmes to attract the youth who are currently not served by the facility. Since this research was first undertaken, an unstructured youth programme has been begun on an experimental basis, but it is too early to evaluate its effect on the problems identified above.

SALISBURY NORTH COMMUNITY CENTRE

Description of Facility

The Salisbury North Community Centre is an integrated group of one-storey buildings located in a residential neighbourhood. The Centre itself is located next to a Council reserve which includes open space and a well-landscaped drainage pond. The Community Centre was opened in May 1979 and consists of five buildings:

- Administration building, with lounge area, coffee bar and offices including accommodation for part time (private) doctor's clinic and MBHA;
- Large meeting hall, also available for hire;
- Crafts studio, which includes facilities for pottery, photography, painting, and other crafts;
- Squash courts and coffee lounge; and
- Child care building (not under Centre management).

The Centre's buildings and corral fence enclose a courtyard, which includes a pond and a "natural" garden of native species. The water feature has a trickling waterfall, pond, sand, rocks, and goldfish. The garden proudly includes over 100 species of native plants, many of which have never been cultivated in the Adelaide urban area. The carparks are designed and marked so that they can be chained off and function as netball courts.

The Centre is located approximately at the end of two different communities; a neighbourhood of public rental (Housing Trust) units, and a neighbourhood of privately owned housing. The Centre is owned by Salisbury Council, with the policy and management functions overseen by a Committee of Management operating under Section 666C of the Local Government Act.

Manageable Space Analysis

Architecture

The Community Centre's architecture is extremely "soft"; subdued warm brick and wood buildings produce a low-keyed, non-threatening architecture. The Centre's "edges" are generally very soft; stained wooden fences. In addition, earth mounding in the reserve immediately adjacent serves to minimise the Centre's impact on the nearby neighbourhood. Great care has been taken with landscaping, both in the Centre's courtyard, and on the exterior, especially in the carparks. Building interiors are open and airy, with vaulted straw ceilings, wooden rafters, glass, and comfortable fixtures and fittings. The overall feeling is one of informality, friendliness, and welcome.

Management

At the time of the Centre's design and construction, the Council's City Engineer took a great deal of care to assure the Centre's success, going so far as to inform local teenagers of the design and purpose of the Centre. Management has generally taken a nonconfrontative attitude

since that time, although it recognises that it does not provide many facilities and activities that are suitable and attractive to teenagers. Management sees its prime user group as young mothers and women in the twenty to thirty-five age range. Shortly after its opening teenagers wanted to use the Centre as a drop-in centre, but management has strongly discouraged this practice. Behaviour "standards" are quite high, and general management feeling is that the Centre is most appropriate for quieter activities and groups, in part because of the more "fragile" fittings.

One management message comes across as rather hard in such a soft environment, a number of signs in the interior courtyard area read, "Do not walk on rocks or mulched areas PLEASE KEEP TO PATHS". This is an ironic negative message, an example of "paradoxical communication" in a place where management has generally attempted to portray "softness" and welcome for most users.

Site Security Analysis

Unassigned or ambiguous space: The Centre has very well-defined spaces with few ambiguities. Some carparks have netball court markings to double as courts. They are located a distance away from the rest of the Centre.

Penetrability: Users enter the Centre only through the Administrative building, thereby providing easy control over access. Once inside the Centre, however, such control is not easily maintained as all buildings are accessible and supervising staff are limited.

Territoriality: The wooden fences provide an excellent definition of the Centre's "space". Buildings generally can be easily "zoned", i.e., the meeting hall can be made accessible from the exterior of the Centre only, the interior only, or both exterior and interior. The child care building has its own enclosed area for children's play.

Surveillance: As mentioned previously, surveillance is a potential problem because of the Centre's dispersed nature and limited numbers of attending staff. The "back" parts of the Centre which border the reserve, are not easily viewed by staff, neighbourhood residents, or passersby. Two toilets are provided for reserve users, and these appear to be particularly vulnerable. The native vegetation planted in the courtyard has grown rapidly and matured; it now obscures pathways and buildings, limiting casual surveillance from each of the buildings.

Community influences: Salisbury North is known as a "tough" area, with high rates of crime, violence, and other social problems. A nearby public primary school experiences many thousands of dollars of damage every year.

Crime and Security Problems

The Community Centre management keeps a detailed log of all crime and vandalism incidents. These incidents tend to fall into one of three categories:

1. Vandalism. This appears to be by far the most frequent problem. Problems include damage to chairs, fire extinguishers, heaters, toilets, and other fixtures; graffiti, paint, mud, and other markings on windows, doors, and walls; and vandalism of vegetation, staff and patron cars in the carpark.

2. Disruptive behaviour and harassment by youth. There have been numerous attempts to disrupt activities, and purposely irritate staff and patrons. Examples range from throwing bricks onto roofs, yelling offensive language, and verbally threatening staff members.

3. Break-ins and theft. Relatively less frequently the Centre and individual facilities (Coke machine, etc.) have been broken into, primarily by persons looking for money.

By far the greatest security problems facing the Centre are from bored and alienated local youths aged between twelve and eighteen. Staff generally know most of the youths involved in creating problems. The daily log of "kid disturbances" shows a number of months with up to nine entries. In the first 24 weeks following the opening, 34 incidents were recorded of damage/disruptive behaviour or when police assistance was requested.

Vandalism at the Centre is generally of a malicious or vindictive nature. A number of incidents have had no special target; the greatest desire was simply to "make a mess". Other incidents, however, have targetted in part on management: damage to staff cars or mention of staff names in graffiti. It is uncertain whether this was done as a specific reaction to management or because management is the most visible symbol of "authority".

Environmentally, the dispersed nature of the complex causes a major problem of surveillance, and a somewhat lesser associated problem of accessibility ("penetrability"). A determined person can easily jump or climb the wooden fence or can damage facilities from outside the complex. At night the chances of apprehension for such behaviour are even further reduced.

Crime Prevention Activities

Shortly after the Centre opened, local youth tried to use the Centre as a "drop-in" area, which caused problems for staff and resulted in a restriction on youth access without supervision to between the hours of 4.00 and 5.30 p.m. every day. A policy which has been made to forestall problems is to keep one staff member at the front desk at all times and to have another staff member circulate through the complex three times an hour. Staff have also instituted tight procedures for closing down at night.

Besides limiting open access to youth to certain hours, management has attempted selective youth programmes, with very limited success. Staff feel that when privileges have been granted, they have been abused, especially in cases of older youths disrupting discos. The committee of management has responded with a detailed statement of "Expectations of People Using the Facility". The statement says that:

In practice the Salisbury North Community Centre primarily caters for people partaking in some activity or organised group. Sport (squash); Craft (photography, pottery, tinsmithing, silver-smithing, woodwork, metalwork, etc.); and social (discos, dances, socials and group meetings).

Conclusions

It is interesting to note that the management of the Salisbury North Community Centre feels that it has been extremely lucky. It points out that considering their facility's vulnerability - with so many soft materials - it has received remarkably little damage. More than anything else, we attribute this to the "soft" architectural design of the facility. The Centre does not pose a challenge to damage, and thus, quite remarkably, receives relatively little property damage. The use of vegetation and "soft" materials such as wood, glass, and comfortable seating reinforces this feeling.

The sensitive design, does, however, include a major drawback. This is the limited ability for surveillance over all the buildings. Extensive vegetation makes this surveillance even more difficult. Problems appear to be more acute at night, for which an upgrading in lighting may help.

The actual design and location of the facility has been the subject of some criticism as well. The Community Centre was evidently located adjacent to the reserve as

that was the only land available. As such, it straddles two neighbourhoods: a lower income public housing rental community, and a slightly higher income owner-occupied community.

The attempt presumably is to service both these communities. It has been suggested that many people who live in the public housing may not "relate" to or feel comfortable with the Centre, for four reasons:

1. The Centre is more highly landscaped than their own gardens.
2. The Centre's furniture is better than these users could ever afford.
3. The Centre's leisure facilities have a strong middle class bias that they do not share.
4. The rules and regulations are not their own.

While these ideas are only hypotheses, they are given some credence by the consistent problems with unruly youth behaviour that the Centre has experienced. If a facility does not meet a group's needs, the chances of receiving feedback on this is highly unusual. What does happen, however, is "undesirable" behaviour. Such behaviour is rare among adults and most often detected among the youth. This may in part explain the consistent problems of disruptive behaviour and vandalism: by management's own admission, facilities for youth - especially for active sports and for informal meeting - have not been provided. Youth have thus been effectively programmed out of the Centre. Despite attempts at understanding these needs, management has promulgated a code of behaviour which reinforces this. Given the lack of facilities and staffing, management may not have much choice.

Management readily accepts that a certain level of problems will persist. Given the high rate of crime and social problems in the community, this is a reasonable assumption. But the lack of any real facilities and programmes for youth is also a continuing problem for this

is the group most capable of expressing their feelings in a volatile manner. It is certain that a significant portion of the vandalism and unruly behaviour results from frustration arising out of these unmet needs. The Salisbury North Community Centre did not produce this frustration, but the Centre's existence and its location guarantees that it will continue to be a recipient of resultant problems.

PARA HILLS LIBRARY

Description of Facility

The Para Hills Library shares a building with a senior citizens centre, and is located near a small shopping centre and one of the two Council-operated public swimming pools. The building is a tall one-storied brick building set in a wooded lot. The library is a full-service branch library run by a professional librarian, who reports directly to the Council's chief librarian. The library is open six days a week, including a couple of nights.

Managable Space Analysis

Architecture

The design of the Para Hills Library is of a "standard" library-type: uninspired, yet generally warm and well-lit. Large glass windows face out onto a wooden lot, providing a pretty view. On a hard to soft scale, the building is generally soft architecture.

Management

Librarians are a different kind of facility manager, as professional librarian training rarely includes components on physical design of libraries and treatment of library users. The library staff would generally be termed "soft" managers, but this is limited somewhat by their fear of, and inability to control many neighbourhood youths. This problem is compounded in two ways: the library staff is all-female, and one of the most troublesome youths is a brother of a library staff member.

Site Security Analysis

Unassigned or ambiguous space: the interior of the library is totally unambiguous. The entry foyer to the building (which houses the senior citizen centre as well) does not really fall under anyone's control. The exterior of the building, particularly on the two sides of the building where the area has grass and trees, is not assigned at all.

Penetrability: the library has extensive ground level windows, many of which were not well secured for a long time.

Territoriality: the nature of a library means that it is difficult for the facility to "claim" exterior spaces. The only public entrance to the library is through the building's foyer. This fact, combined with the building's set back location and lack of any courtyards, means the library's "territory" is strictly limited.

Surveillance: Only one side of the building is visible from the visitors parking area in the adjacent shopping area, and this side is obscured by vegetation. Even during shopping hours, little surveillance will occur from that vantage point. The other three sides of the building, including the staff carpark, receive virtually no surveillance. Floor to ceiling windows are located along one side of the library.

Design conflicts: The porch canopy over the front entrance provides protection from the weather, but also provides easy access to the high-level windows on that side of the building of the library.

Community influences: The nearby Para Hills public swimming pool and shopping centre have historically experienced break-ins and vandalism. For a long time a local fire station was located on the site and many youths used to visit the fire station and used the area to "hang out". Although the fire station has moved, there appears to be a tradition for youths claiming part of the open space that

surrounds and is adjacent to the library.

Crime and Security Problems

The Para Hills Library has been subject to vandalism and to a number of attempted and successful break-ins. While users have not complained, staff have also been threatened by local youths and are worried about both their personal safety and their cars in the staff carpark. Records and audio-visual equipment has been stolen during break-ins and books have been thrown off the shelves. The area that experiences the most problems is the wall of floor to ceiling windows facing into the open space. Youths have also climbed the nearby trees and climbed around on the roof, generally messing about. Exterior lighting fixtures have also been broken. The library staff greatly fears that sometime someone will accidentally or purposely light a fire inside the library during a break-in.

Crime Prevention Activities

Because the large windows have been subject to extensive problems, the Council has considered bricking them up, either to a height of one or two metres. This would cost \$600 or approximately \$2,000 respectively. The bottom of the windows are particularly vulnerable and not easily secured. After experiencing a number of problems the library installed a motion detection burglar alarm system, operated by a major security company. After it was installed, staff noticed the youths coming in to "check it out". The next weekend, seventeen library windows were smashed, a good example of "vindictive" vandalism of equipment that the youths (rightfully) felt was directed at them. After the installation of the alarm system, vandalism and break-in attempts appear to be decreasing, and staff feel more secure against break-ins and fire.

Conclusions

Once again the main problems at this facility appear to be vandalism and break-ins by local youth, with some fears as to harassment of the female staff. In contrast to the previous two case studies, break-ins (with the possibility of fire) were classified as the greatest problem. This is most likely due to the expensive electronic equipment which the library owns. Problems seem to have escalated in part because the library staff is fearful of and unable to deal effectively with the troublesome youths. There is no doubt that the building suffers from some severe flaws from a view of security design, specifically an almost total lack of surveillance and a large number of accessible and poorly secured windows.

The library administration has opted, however, for a very "hard" approach to crime prevention: a sophisticated burglar alarm system. An alarm system is appropriate for such an isolated facility, but to be truly effective in preventing crime other changes are needed as well - small-scale design changes and perhaps an attempt to involve youths in library programmes so that they could feel the facility was theirs. This is admittedly difficult, but a "softer" approach goes to the root of the problems, and is not very expensive. The alarm system does not solve all the problems, but only the issue of break-ins. Staff harassment and vandalism can and probably will continue until other prevention activities and "management" changes are attempted.

SALISBURY SWIMMING CENTRE

Description of Facility

The Salisbury Swimming Centre is a large outdoor swimming complex located in the Council's "Happy Home" Reserve, not far from downtown Salisbury. The Centre is

owned and operated by Salisbury Council. It is open during the warm months of the year, daily when temperatures and user need demands it. On a hot summer day, 2000 to 3000 people will use the swimming centre. The Centre consists of an adult pool, a children's pool, offices, changing rooms, a kiosk, and a caretaker's flat. Two wooden buildings have been provided by the Council next to the Swimming Centre to function as a youth drop-in centre. A part-time youth worker is employed to supervise this facility.

Manageable Space Analysis

Architecture

The swimming pool has extensive well-maintained lawn areas. The design is standard swimming centre design. Most features are nothing exceptional. The changing rooms are bleak with an attempt at "vandal-proof" fittings.

Management

The swimming pool management appears to be "soft", although evidently this has not always been the case. Previous managers have been involved in extensive "hassles" with local youth.

Site Security Analysis

Unassigned or ambiguous space: The swimming centre is surrounded by a wide open Council reserve that does not have many identifiable functions assigned to it.

Penetrability: The swimming centre is surrounded by a chain link fence. Buildings and grounds are easily entered by a determined intruder.

Territoriality: The existence of a caretaker living on-site is a very important indication that someone "cares"

for the pool and its grounds. The two drop-in buildings seem arbitrarily placed so close to the swimming centre, but with no relation to it.

Surveillance: Little casual surveillance of the swimming centre is available as it is located in the middle of the reserve and only backyards of houses border the reserve in this area.

Design conflicts: The location of the youth drop-in centre so close to the swimming centre seems that it could cause use conflicts between youth "hanging out" and pool users.

Community influences: As the swimming centre is set well back in a reserve, specific local community influences are relatively difficult to analyse. The pool is very centrally located, only a short distance from downtown Salisbury.

Crime and Security Problems

During 1977 and 1978 it appears that a high degree of vandalism at the swimming centre occurred. This included damage to trees, vegetation, lights, brick walls, toilets, and even the youth drop-in centre. It is uncertain what were the direct or motivating causes of the crime and vandalism problems at that time. Occasionally the kiosk is broken into by people looking for money or candy, but the current pool management feels that they have no real problems and consider themselves very lucky.

Crime Prevention Activities

The flat which is located at the swimming centre was originally intended for the manager's use. However this caused a great number of problems, probably because it made the manager and his property too accessible and visible

for anyone with a bit of a grudge to partake in some "vindictive" vandalism. Having the caretaker live in the flat appears to cause no problems and indeed provides a relatively nonthreatening "informal" surveillance. The lack of problems is probably due to the caretaker's personality above everything else. A nonconfrontative management style also is a key factor in the relative quiet this facility is experiencing.

Conclusions

The construction of the two buildings for "youth drop-in" was in part an attempt by the Council to provide alternative facilities for youth needs. The location of these buildings very close to the swimming centre is questionable. Provision of these simple facilities for youth is better than none at all, although may be less than adequate.

This facility is used during only part of the year and its location means that little casual surveillance is available. Above all, management attitudes seem to have played an important part in the type and number of problems and incidents. Past problems have been both vindictive and malicious vandalism and break-ins, mostly undertaken by local youth. This is consistent with the type and causes of problems at other Council facilities.

CONCLUSIONS: CRIME AND VANDALISM IN SALISBURY COMMUNITY FACILITIES

Problems of crime and vandalism in Salisbury Council facilities are not as widespread or as serious as certain people present them to be. Indeed there is some evidence to suggest that problems have eased somewhat in the last year or two. Only now is the perception of crime, and especially vandalism, actually catching up to the problem.

Policy-makers and the public are realising the costs associated with vandalism, and thus public concern and outcry is made. Ironically, one of the reasons for more problems now is simply that there are more facilities: the Council has constructed more buildings and become involved in more areas. Thus it is not surprising that the numbers of Council-wide incidents should rise.

"Vandalism" appears to be the major crime issue for the Council. This presents a number of problems. The first is that a number of incidents are incorrectly being termed "vandalism". For example, break-ins, and harassment of and threats on Council staff are often referred to in this way. This obscures the real issues and the complexity of the crime problems and often leads to inappropriate responses. "Vandalism" as a crime is a lesser priority for police response than break-ins and the threat of assault, thus police response may be slower than it would be were the correct terms used.

Vandalism as an issue for concern also causes a problem because of the limited range of responses commonly available. The two most common Council responses are consistent with our other research in the area: utilitarian prevention (protect facilities and try to keep offenders away) and deterrence/retribution (call in the police). There is a fairly common understanding that youth unemployment, boredom, frustration, and alienation are the major causes of the vandalism, which is almost always of a "vindictive" or a "malicious" kind. But the will to respond to these problems through creating meaningful programmes, activities, and facilities for youth does not appear to be widespread.

Most environmental aspects of the crime and vandalism problems are understood, particularly the lack of surveillance and poor hardware and fittings. The role of hard and soft architecture appears to be well understood in the case of

the Salisbury North Community Centre (where soft architecture "works") but not easily understood in the case of the Ingle Farm Recreation Centre (where hard architecture helps to accentuate problems). In the case of the Community and Recreation Centres, the size and type of facilities provided are important to understand. In part because of upper-middle class designers and planners, these facilities for lower-middle to working class areas have an upper-middle class mentality, focus, and identity. Even the softest architecture in the world cannot hide the fact that the facilities provided are not what many people want or need.

IV LARGE PUBLIC DEVELOPMENTS IN SOUTH AUSTRALIA: THE
PARKS COMMUNITY CENTRE AND NOARLUNGA REGIONAL CENTRE

INTRODUCTION

Large Public Developments in South Australia

The 1970's saw an upswing in the rate of planning large-scale public developments in South Australia. These new large-scale developments were less the monuments of a previous age such as town halls and other traditional public buildings, nor were they the large university-building of the 1960's. The new facilities were more arts, recreation, and community-oriented, more diverse and more complex, serving sometimes regional, sometimes local, sometimes metropolitan-wide user groups.

In Adelaide the Festival Centre on the banks of the River Torrens rapidly became a symbol of the "new" South Australia: progressive, forward-looking, arts-conscious, emphasising harmonious design and environmental sensitivity. The decentralisation of education functions in South Australia, in large part through the Department of Further Education, also added to a diverse new building style.

During the Whitlam years of 1972-1975 "social development" and its support facilities became fashionable as an area on which governments could spend money. Government spending on these type of facilities has been reduced as we enter the 1980's, but still continues with most regional centres wanting or expecting a new "high-class" facility of some sort. Despite spiralling construction costs, we are likely to continue to see facilities like the Erindale Centre in the A.C.T., or Mount Gambier's (South Australia) civic and arts complex, which was opened in April 1981 by Prince Charles.

This chapter examines the crime prevention aspects of two recent South Australian developments: The Parks Community centre and Noarlunga Regional Centre. The Parks Community centre arises from the early 1970's "social development" push mentioned above. It is a multi-use large-scale community centre located in a very low income and deprived Adelaide suburb. It was developed with state and federal funds and administered through the South Australian Department of Local Government. The Noarlunga Regional Centre is a joint public/private enterprise originally developed by the South Australian Housing Trust. The centre is intended to be a regional shopping, office, government, and educational centre serving the distant southern parts of the Adelaide metropolitan area. In some ways it is a newer "modern" version of the Elizabeth Town Centre, a regional shopping/government/community centre serving the far northern region of the metropolitan area.

Researcher Involvement

Researcher involvement with the Parks Community Centre began in May 1980 with an invitation to address the centre's "Working Party on the Behaviour of Youth" on the topic "Environmental Design and Delinquent Behaviour at the Parks". Involvement continued from July 1980 to July 1981 as a consultant to the centre in the development and implementation of a programme to erect signs around the centre. Doing so has entailed a comprehensive analysis of the social and psychological environmental functioning of the centre. This assistance has included numerous interviews, site visits and observations, and detailed specification of location of signs to assist way-finding and orientation in and around the centre.

Researcher involvement with the Noarlunga Regional Centre has been as an observer only. Because of our more extensive involvement with, and knowledge of the Parks Community Centre we will discuss the community centre in

more detail than Noarlunga. However, studying the two facilities provides some interesting basis for comparison.

Both the Parks Community Centre and the Noarlunga Regional Centre are new facilities which were still being completed as this research was undertaken, although each had been open for a number of years. The research findings are hampered in that they are static, that is limited to one time, and do not reflect the many changes that have occurred since late 1980 and early 1981. It should also be noted that state budgetary constraints have made it difficult for each facility's management to deal with a number of the problems that have been raised.

THE PARKS COMMUNITY CENTRE

Introduction

The following section is a serious attempt to analyse, evaluate, and understand some of the planning, design and management issues of the Parks Community Centre, particularly as they relate to crime prevention. Inevitably the analysis will imply some criticism of the Centre, and of planners, designers, and managers who have been associated with the Centre. It is important to point out that the Parks Community Centre is vulnerable to such criticisms because it has attempted to do so much in terms of providing services and facilities in a needy area, and in involving residents in the management of Centre activities. The Centre achieves a number of workable joint school/community use facilities (library, sports, theatre, arts and crafts, etc.), plans for which have hopelessly bogged down in other places.

Of all the facilities and developments discussed in these case studies, the Parks Community Centre is far and away the most ambitious in its attempts to provide a comprehensive set of facilities and services to what is

certainly a very deprived local population. Of all developments described in this report, it is probably the most user-oriented and sensitive to both expressed and unexpressed user needs.

Description of the Centre

The Parks Community Centre is a large multi-use facility of nine buildings, extensive open space and outdoor recreation areas. The centre includes a library, large recreation centre with indoor and outdoor swimming pools, art and crafts centre, high school, two theatres, cafeteria, social facilities, child care centre, computing centre, health centre, and youth drop-in centre. There are extensive sports fields, tennis courts, and other outdoor recreation areas.

A large number of offices are located at the centre, including the Department for Community Welfare, Department of Further Education, and Legal Aid. The centre houses over two hundred employees, many of whom work for departments such as Education, Community Welfare, and the Health Commission. The Centre is administered through the Department of Local Government and has a semi-independent policy-making Board of Management.

The Parks Community Centre (also known as "The Parks") is located at the corner of Trafford and Cowan Streets, in Angle Park, in the industrial suburbs to the northeast of downtown Adelaide. The centre is adjacent to the Angle Park dog-racing track and both are in the Enfield Council area. The dog-racing course borders the centre on its eastern side, and residential areas are on the other three sides. The surrounding community consists almost entirely of South Australian Housing Trust rental housing, primarily of the one-storey double-unit type. An extensive industrial zone is located not far away. A small convenience shopping

centre is located across Trafford Street, right by the Centre.

The Centre is located on the former site of the Angle Park Boys and Girls High Schools, which have since been demolished. Besides the buildings, the Centre also has two large car parks and a complicated network of pedestrian pathways and vehicular accessways. Buildings are all of grey brick with blue sloping rooflines, and have angular unsymmetrical shapes in the style of an old "village". Four major pedestrian routes all arrive at "The Square", which is the symbolic heart of the Centre and includes a concrete sculpture and "water feature". The Centre is oriented primarily for the local "Parks" area, but draws users from all over the metropolitan area and beyond, particularly to use the theatres, computing centre, recreation facilities, meeting rooms, and the art and crafts centre.

Students at the local high school use the centre's facilities extensively as part of their studies, especially the library, sports centre, and art and crafts centre. For this reason, high school students are some of the main users of the "site" during school hours. However, an increasingly wide range of people make use of the Centre, including theatre groups, corporate meetings, and others.

The local "Parks" community - the Angle Park, Mansfield Park, Ferryden Park, Athol Park, Woodville Gardens area - is well-known for its high rates of poverty, social problems, "broken" families, and general deprivation. As part of the initial evaluation of the Centre, a detailed study was done by Warwick Heine and David Rimmington (1979) of the local residents and their activities. Almost 700 people participated in this study. Over 27 percent of all women sampled were separated or divorced, a substantially higher

rate than in Adelaide as a whole. Meine and Rimmington point out that this was not unexpected, as the area is often used by the South Australian Housing Trust as an emergency housing area for families in such situations. There have been some complaints by residents and others about the Trust using the area so extensively for emergency housing, or perhaps as a "dumping" ground for problem families. All of these factors have important implications for the community centre itself.

Meine and Rimmington found other evidence of a deprived community as well. Only one percent of respondents report having obtained tertiary qualifications and a further nineteen percent trade qualifications. There is also high unemployment, particularly among those under twenty years of age. A full 38 percent of respondents reported some form of public assistance or pension as their main source of household income, 55 percent reported wages or business income, and the remainder did not specify or reply.

Manageable Space Analysis

Architecture

The exterior design of the Parks Community Centre is generally of a "hard" architecture. The design does not look "cheap", nor do the buildings portray a "security" mentality that often characterises hard architecture. But the site is, quite simply, built of hard materials: the great masses of grey brick are broken up by windows and varied building form, but the bricks and the extensive grey, red and beige paving stones presents an unmistakable image of a concrete-style centre.

There is a major contrast between the "hard" exterior design, and the interior design, fittings, and furnishings which are undeniably "soft": they are comfortable, colourful, and easily moved and otherwise rearranged. The inclusion of a number of large stained glass windows by the famous Adelaide artist Cedar Prest underlines the soft and aesthetic nature of the interiors. Occasionally the type of interior fittings provided are not only of a "soft" design, but of relatively unsteady construction as well. Items like foam cushions and plastic toilet fittings are provided and have been very easily damaged.

From a design standpoint there are three aspects to the Parks Community Centre: the hard grey brick and stone exterior of the buildings, the warm colourful interior of the buildings, and the generally well-maintained and planted open spaces. As abundant as these open spaces are, they do little to "soften" the centre's design. The planted outdoor areas almost all occur on the outside of the intricate complex of buildings. As a result, these areas generally provide only two functions: they are a green aesthetic backdrop to the buildings and the centre as a whole, and they are suitable for active sport type of recreation.

But what of the open spaces that are associated with the buildings? Remarkably few of them include planted areas, despite the extensive landscape maintenance programme that the centre undertakes. Exceptions to this include a courtyard by the theatres, some areas by the high school, and a couple of other small courtyards. The major pedestrian areas among the buildings remain undeniably hard with grey stone paving running right up to the grey brick of the walls.

Some of these problems are due to the location - on the relatively hot and dry plains northeast of downtown Adelaide. This means that the landscape development programme is very

time-consuming. A major constraint in the design of the interior pathways is the necessity for fire engine and ambulance access, thus limiting options. As time goes on much of this "hardness" should decrease, with more mature plantings.

Perhaps the "hardest" outdoor space is the most important one - the central "square" area. This area has four pedestrian pathways entering it and is surrounded by four buildings. Unfortunately, except for a small patch by the "Education C" building, the ground is totally covered in a predominantly grey brick. There are a few benches and a few large concrete planter boxes with small trees in them. There is also a painted angular concrete sculpture and a fountain. Virtually the only "manipulable" material in the whole "Square" is the water in the fountain, which until recently had often not been filled. It is truly a "hard" architecture.

The lack of colour on the exterior of the buildings has been slightly relieved by the construction of a few large coloured signs identifying buildings. This points up another design failure: the centre was opened with virtually no identifying signs to tell users where they were and how to find the activity or the facility they sought. While this is slowly being remedied, the centre visitor is faced with unrelieved poorly identified same-looking brick buildings. Despite extensive landscaping only a very few creepers or vines have been planted to grow on the walls, thereby softening them with some "green" life.

Management

In contrast to the generally "hard" architecture of the centre, the management is generally "soft", encouraging and welcoming user involvement and creativity. This has been instituted through the community liaison officer, and a number of committees and programmes. A local community

group operates the cafeteria for the benefit of a community bus service. Local residents are also included in deciding policy for certain facilities like the library.

Herein lies a difficulty and a tremendous complexity in evaluating the centre's management style - there are numerous facilities, programmes, and activities, each of which is directed by a different "manager". There is some coordination and cooperation of the centre's programmes, but other parts can and do run quite independently. Much of this stems out of the different professional backgrounds of the "managers". For example, the health centre directors are medical professionals (doctors) who are employed by the South Australian Health Commission. Their location in the centre may be purely physical location as there is little means to ensure a similar style of facility management. This is a problem which a number of other major multi-use and multi-functional centres undoubtedly face.

The real challenge then is to weld all of these different facilities together into an actual community centre with a user-oriented management. The relative newness of the centre (open only about two years at the time of research) and its unique mix of facilities means that such coordination has proved at times to be difficult.

All that can be said then about management from this standpoint is that coordination is occurring, and that sometimes it works. A key issue of management is the general attitude towards users, especially youth, and the reaction to crime and vandalism. This will be discussed in more detail in succeeding sections, but it should be noted that a number of sincere efforts have been made (of which many have been successful) to deal with what is probably the greatest problem in the community: unemployed and bored youth. The "Cellar", a youth drop-in centre is provided for this purpose. It generally caters for youth aged thirteen to twenty-one. The centre provides extensive other

programmes for youth, which are too involved to list here. Other youth programmes include a developing Adventure Playground, school holiday programmes, and unemployed youth activities.

In terms of the actual management of the physical environment, the centre appears to be less open to user involvement. A certain feeling of the sanctity of the architect's original design may account for this in part. Historically, the centre has allowed virtually few changes or "personalisation" to the building exteriors except when it has been absolutely necessary - in the case of temporary signs for instance, or major modifications to buildings such as the construction of four lifts. It should be mentioned that lack of money has prevented a number of projects (i.e. signs) from proceeding.

Site Security Analysis

Unassigned or Ambiguous Space

It is the nature of a community centre that the spaces in it be almost all "public" in nature. The design does include a series of different sized and shaped outdoor areas. It is clear that the sports playing fields have a clear role and function - active recreation; and that large planted areas are for aesthetic purposes. Nevertheless there are a few important areas whose assigned uses are unclear. The first of these is the central "Square" area, which is to provide a "village square" meeting place and a focal point for centre users. However the design and relative lack of amenities in the Square (seating, planting, shade, etc.) make some of these activities rather difficult. There is the water "feature" and the harsh sculpture, plus a couple of benches and very small trees. This area was being redesigned in late 1981.

A few other spaces have questionable functions as well. One of these is the empty grey brick "courtyard" immediately adjacent to the Art and Crafts building. This is not really such of a courtyard at all, having little definition and sense of enclosure, and absolutely no amenities such as vegetation, shade, or seating. It is another casualty of budgetary difficulties. The other areas of a more ambiguous nature are the first-storey outdoor decks of the Education A (main high school) building. These are publicly accessible by stairways, but unused - perhaps originally intended for holding classes outdoors on nice days, but not providing the facilities for this.

Penetrability

It is the nature of a community centre to be "accessible" to users; decreases in such accessibility will defeat a centre's purpose and may very well evoke a negative reaction from users and potential users. Thus public accessibility is correct in a facility of this nature. "Private" areas such as offices are generally well-provided for in the interiors. However in some parts of the centre certain features are a little too accessible from outside buildings, such as large floor to ceiling windows in walls right next to public pathways, "unbuffered" from the outside. This type of design means the privacy of many facility users is sometimes easily invaded.

Territoriality

Although territoriality as a concept is much better suited for residential environments, it has applicability to public community centres as well. In this instance it means the ability for groups of users and for programmes, facilities, and so on to actually control and utilise a space. In a few areas such territoriality is well-provided for by means of fencing: especially for the outdoor pool complex and the children's house. Small fenced outdoor

courts are also provided to the library and the health centre. Similarly, the Focus Two building has a sensitively designed "theatre courtyard". These are excellent efforts and the site would probably benefit from provision of more "semi-public" type of outdoor spaces, whose access is relatively limited. These type of spaces will support a wider range of activities than the fully public ones will. (Plans to do this do exist).

Surveillance

In any facility as large and complex as the Parks Community Centre, there are likely to be some problems of surveillance. In this case, vegetation can be both good and bad: while trees and bushes will soften "hard" buildings (which the centre has in abundance), this vegetation can also obscure visibility and inhibit casual preventative surveillance of the site. Since the centre is relatively new, vegetation is only now beginning to mature, meaning that it should be carefully monitored in the future.

A number of the design features provide some distinctly difficult areas to survey. These include a number of hidden corners tucked in behind parts of buildings at the following locations: the sports changing room exterior entrances, the cellar's (youth centre) "back door", and the outdoor toilet areas by the school. Special mention should be made of the two large carparks which, although they are open in design and layout, are not overlooked by any centre buildings. Vehicles parked in them are particularly vulnerable.

Design Conflicts

There are two small-scale "design conflicts" and one large-scale one. The two smaller ones have to do with the recently constructed lift towers, and the one-metre high

cement signboards (known as the "tombstones") which are no longer used. Four lift towers were recently constructed at the centre to provide access to upper floors for disabled people. Two of these - at the library building and the art and crafts building - obscure the front entrances of those buildings. This conflict makes the entrances far more difficult to identify, besides limiting surveillance of important entryways. The "tombstones" were originally constructed to have signs on them, were quickly vandalised, and now no longer have any function. Although most have been removed, the remaining ones are prime objects for vandalism and barriers to the free movement of people and vehicles.

The large-scale design conflict occurs in a number of different places around the centre: ambiguity between pedestrian and vehicular routes. This is particularly acute in the back of the arts and crafts block by the children's house. It is also a concern in the area between Focus Two and the arts and crafts building where autos and trucks often drive up the pedestrian walkways. The centre proposes to install more bollards to ease this problem.

Community Influences

We have described above the relatively deprived community which the centre services and in which it is located. The high school located at the centre consistently means that teenage youth (who often are the "hardest" on such facilities) are constantly using the centre. Two other facilities are located nearby: a small convenience shopping centre right across Trafford Street and the Angle Park dog-racing track. Their effect on the Parks Community Centre is uncertain.

The Heine and Rimmington (1979) study provides some insights into some social influences of the community. When asked to suggest a single feature of the community that stood out, approximately one in four (26%) respondents said none, almost one in four (23%) said "problem families" in the neighbourhood, and about one in eight (13%) said the area was untidy or unkempt. Only four percent mentioned the cleanliness/tidiness of the neighbourhood or "positive attitude of residents".

Crime and Security Problems

The Parks Community Centre experiences a wide range of petty crime and other security problems. For the purposes of discussion, we will analyse these in three different groupings: specific design features of the site, vandalism and break-ins, and youth delinquency.

Specific Design Features

The two features which began to present problems shortly after the centre opened were the lighting and the windows. Centre lighting was originally provided by white opaque polycarbonate globes, located on buildings approximately two and a half metres off the ground. These are very strong materials, when the material is thick. Unfortunately the materials used were thin and the round white globes give the impression of being very vulnerable as well. As a result they were immediate targets, and the centre has had to replace most of these globes with "spot-light" type lighting mounted much higher on buildings.

Windows provided an immediate target as well. A number of ground-level windows are of the louvre-style. The designers believed these to be very secure for to make an effective entry into a building someone has to break a number of different panes of glass. But once again the vulnerable

appearance of the louvre windows has proven to be their downfall, and the centre has had to install unaesthetic iron bars on the inside of the most vulnerable of these windows.

Other design components were not constructed of sufficiently durable enough material and have needed constant reinforcing and repair. These include the large centre site directories and maps, small low brick walls, and the metal fences surrounding the children's house and outdoor swimming pool. The metal fences have required rewelding of every single "bar" on the fence as their original specifications were inadequate.

A number of specific areas of the centre have been subject to a great deal of problems. One of these is the sculpture in the Square, which is an occasionally attractive target for graffiti. This relatively unaesthetic and unfunctional sculpture is of a very "hard" design, which may encourage some of the damage. A number of areas where youth "hang-out" - like near the cellar drop-in centre and by the school - are also major areas for graffiti, although this is not unexpected.

The final specific "problem" areas on the site are the two large carparks, which we have already mentioned. Because of their location they receive little surveillance and many cars are left unattended for long periods of time. Vandalism, theft from, and theft of cars has all occurred in the carparks. At times the problems have become so bad that the centre management considered erecting "park at your own risk" signs.

Vandalism and Break-ins

Vandalism and break-ins are a problem at the centre. We have described above a number of areas which are particularly subject to vandalism. Generally the areas

coincide where youth "hang out" or where little or no surveillance occurs. Break-ins appear to occur primarily in facilities where there is something attractive to obtain; money, candy, audio-visual equipment, etc.

General petty vandalism is a continuing problem at the centre, but most people would agree that it is not nearly as great a problem as one would expect. This can probably be attributed to two good management practices: following generally "soft" management principles, and rapidly repairing any damage that is done. Because the centre looks well-maintained and cared for, it avoids a higher level of problems.

Youth Delinquency

By most accounts the great majority of problems at the centre are caused by local teenagers, many of whom are unemployed, frustrated, and bored. The one facility at the centre which caters specifically for their needs - the cellar "drop-in" centre - is extremely busy. Generally these youths will range in age from thirteen to twenty-one. A recent estimate of cellar users was that 45 percent were still in school, 45 percent were unemployed, and only ten percent were employed. A Hindley Street streetworker (who operates in downtown Adelaide's most popular youth "hang-out" area) claims that since the centre opened very few of the "Parks" youth "hang-out" on Hindley Street anymore.

There have been a number of major problems of youth at the centre. Little forward planning was done for the drop-in centre, for instance, because of government freezes on new staff appointments. Cellar directors were hired barely two weeks before the facility was to open. The result was a rush to use the facility (implying perhaps a huge previously unmet need) that was overwhelming and disorientating. Some of centre policy since that time has by

necessity been "reactive" to youth problems. This results in large part because of the overwhelming social problems in the area. Forward planning in this area is finally possible and appears to be helping.

Other youth problems have included drinking, glue-sniffing, and other minor drug-taking. The result has been numerous cases of slightly crazed "high" youth who have been difficult to handle. Particular problems have occurred during discos and other major evening events.

The actions and attitudes of the police have reportedly not helped the problems. Police have come into the centre on numerous occasions, both when they were summoned and not. Although some police have been very helpful, many people feel that some police have provoked incidents with the youth both purposely and unconsciously by their attitudes and behaviour. Three or four small-scale riots between police and youth have been the result. Evidence shows that such police-youth interaction is not unusual for similar low-income communities where mistrust of the police is often high. In addition many of the "rookie" policemen are very young, and hardly older than the youth with whom they tangle.

Crime Prevention Activities

The centre has not seen the need to undertake crime prevention activities such as hiring a security guard service. Centre stewards and maintenance crew generally act as effective caretakers. Indeed, as we have already suggested, the centre management appears to be very sensitive to the social problems in the community that help to cause crime and the centre management attitudes towards local youth are generally firm but not of a "hard" style. This relative sensitivity to youth needs plus rapid repair of vandalism are probably the best tactics management can pursue.

Youth problems have been very bad, however, and in May 1980 the centre convened a "Working Party on the Behaviour of Young People at The Parks". This working party carefully investigated youth problems and their causes, and produced a report with a series of recommendations. As a result of the recommendations, the centre restructured its youth programmes and activities. The cellar was closed down for a number of weeks and redecorated with the assistance of the youth. More youth programmes and personnel were hired. Finally, youth obtained easier access to sports centre facilities, about which they had been complaining. This was a good example of what can be achieved when forward planning in this area is undertaken.

Conclusions

In large part because of its location and its attempt to provide a wide range of social and community services, the Parks Community Centre is subject to a wide range of minor crime and vandalism problems. The social problems in the "Parks" area would exist without the centre, and the centre's design plays only a small role in this. Nevertheless we have seen that centre management has been sensitive and effective, generally following principles of "soft" management. Reaction to security problems has been sensible, and rapid repair and a high level of maintenance has helped to minimise a high level of vandalism.

The unfinished nature of the centre has certainly added to a number of its problems, especially the continuing minor vandalism. Chapter two of this report (on vandalism) discusses this issue in more detail.

Another major problem the centre has faced is continuing staff ceilings and severe budgetary constraints. This has meant virtually no initial forward planning regarding youth at the centre, which had negative consequences. It also

has meant that many parts of the centre were still awaiting completion two years after opening. This not only encourages vandalism, but hampers staff and has been hard for users in many instances, such as the lack of signs. An important message to facility designers, planners, and administrators from this is that budget-cutting during a facility's "start-up" time may be especially problematical and should be avoided when at all possible.

While the design of the centre is not related to the social problems of the surrounding community, the centre's physical design may be creating a number of problems. We have commented extensively on the "hard" exterior architecture, which discourages user involvement. Nor does it encourage casual sociable outdoor activities, which would be logical in an environment as mild as Adelaide's. The outdoor lawn areas (the "soft" elements) have had some social activities such as barbecues.

Despite the centre management's social sensitivity, it has generally been unwilling to permit or to encourage staff or user modification of building exteriors and outdoor spaces. This may arise from the relative newness of the centre, the continuing involvement of the designers in finishing parts of the centre, and from a feeling of "architectural sanctity" - that it was designed in a certain way, and therefore should not be changed. (There are a number of plans which have not yet been completed). By and large the "hardness" of the centre's exterior design has not been fully understood by centre staff and management. The lack of creepers and other vegetation on the large blank brick walls of buildings is an indication of this slow growing vegetation, and staff and money shortages accentuate this problem.

Hard architecture is more than simply elements of site design, however, and includes notions of the wider facility as well. The fact is that the Parks Community Centre is a large and complex facility, housing numerous functions, activities, and programmes in one development. In doing so,

many of these functions lose an individuality which they might have had in another location. The centralisation and ease of access to most activities could probably still have been achieved without developing such a large facility. For hard architecture is a design out of human scale. And while the centre has carefully followed a "village" one- and two-storey scale, the total accumulation of buildings and activities means that the scale is large. While this has not been documented, we feel that such a large facility puts off many users, especially those in the relatively deprived local community. The lack of adequate signage at the centre for its first two years have accentuated this problem.

Thus in the place of building more "Parks Community Centres" in the future, we would advocate more decentralised smaller-scale facilities rather than one large complex one. The tradeoff is between centralised access (and reinforcement of activities, like health or education) and scale of development, for which there are no easy answers. Smaller facilities are easier ones in which to encourage user involvement and understanding, however. In that, and in the differences between hard and soft architecture, are important implications for environmental crime prevention.

NOARLUNGA REGIONAL CENTRE

Introduction

We have included Noarlunga Regional Centre as a case study in this report in large part for comparison to the Parks Community Centre and other facilities. We have not conducted a complete analysis of this facility's crime problems, but primarily have analysed the site design.

Description of the Centre

The Noarlunga Centre is a comprehensive regional centre including government and private offices, shops, a community college, and a transportation interchange. The civic centre was opened in September 1976, the railway

station and recreation centre in April 1978, the shopping centre in late 1979, and construction is nearing completion on other parts of the centre.

The centre is located twenty-five kilometres south of central Adelaide. It is intended to serve a region extending from the southern edge of the Mount Lofty Ranges to the constantly extending southern tip of the metropolitan area. The site consists of 110 hectares of which only a part is currently developed. It is bounded by two arterial roads and a freeway reservation, with a railway line through the middle, although almost all of the current development lies to the east of the railway.

The centre currently includes the following facilities:

- A multi-storey civic centre of the City of Noarlunga.
- The "Colonnades" regional shopping centre, developed by the A.M.P. Society with the Housing Trust. This \$30 million multi-level building includes a Myer department store, a K-Mart discount store, and many other smaller stores.
- A six-storey office tower, developed by the T and G Society with the Housing Trust for a variety of government and private offices.
- The "Colonnades Tavern", developed by North Adelaide Hotels Pty. Ltd.
- A transport interchange, developed by the State Transport Authority. It includes both a railway station and a covered bus station.
- Small two-storey office buildings housing banks, a post office, and others.
- The "St. Vincent Recreation Centre", developed by five government and community groups. This centre provides a wide range of indoor recreation activities.

The "Noarlunga Community College" is under construction and nearing completion. It is a \$12 million technical and further education college, including a theatre and combined public/college library. Other future centre developments will include a seventy bed private hospital, a permanent health centre, and several commercial developments that will be accessible to the highways on the outer edges of the centre.

The Noarlunga Centre was developed by the South Australian Housing Trust, in conjunction with many public and private organisations. Control of the centre is vested in the Noarlunga Centre Committee, which is a sub-committee of the State Planning Authority. The Noarlunga City Council and the South Australian Housing Trust are the primary members of that committee.

The centre has been planned on the basis of a pedestrian mall system. A network of landscaped areas has been provided in a major pedestrian "precinct" linking all of the buildings in the heart of the centre. The initial pedestrian network includes six components:

- Ramsay Place, the "town square" onto which face the shopping centre, office tower, college theatre, civic centre and tavern.
- Walkways from Ramsay Place to the northern carpark and one of the two bus areas.
- Ramsay Walk, a pedestrian mall connecting the town square with the railroad station.
- The "Colonnades" two-level enclosed shopping mall.
- Walkways from Ramsay Walk to both northern and southern carparks.
- The transport interchange concourse.

For the purpose of our environmental crime prevention evaluation, we are concerned with each of the six areas above with the exception of the interior of the Colonnades, plus the two major carparks.

Manageable Space Analysis

Architecture

The South Australian Housing Trust conducted an extensive campaign to encourage and promote public participation in the planning of the Noarlunga Regional Centre. Extensive public meetings were held and the public was invited to contact the planning team directly, especially Newell Platten and John Byrne. Using the planners' actual names on the publicity is relatively unusual for large-scale (or even small-scale) developments, and may very well have presented a "human", more open image to the public. The actual effect on specific design elements of this public transportation process is uncertain, nevertheless it was a strong step towards "softer" architecture and design.

As we mentioned above, the centre was planned with a pedestrian system in its heart. Housing Trust literature in 1972 described it this way:

The precinct will be the essence of the centre, a relaxed ambulatory design to encourage social contact and involvement. A space for loitering and window shopping, for conversation and rest, it will engage the interests of all members of the community and cater for the activities of all age groups, from the noisy play of children to the quiet detachment of the elderly.

Comparing the proposed centre to a Mediterranean fishing village, the Trust literature said:

The centre is seen as a place for people, a sociable place related to the human presence, moving and at rest. Buildings and the spaces between them, the pedestrian streets, arcades and squares shall be scaled to suggest containment, and fragmented to afford spatial variety. There shall be no question of monumentality, of place dominating man, of buildings dominating action.

These are all very grand visions: of user involvement, of diversity of both functions and uses, and of a human scale. Harmonious landscaping was also to be built into the centre; medium-density housing was to be nearby; and all future growth of the centre was to be easily accommodated without disruption to the other elements.

These were the dreams: of a softer, human architecture, what of the reality? We have seen some of these dreams realised, but not all. Some places work and some do not. There are three major problems: the six-storey office tower, the "Colonnades" shopping mall, and the immense northern and southern car parks.

Perhaps the office tower and the shopping mall became problems because they were privately developed. The office tower stands alone, next to the northern car park and the civic building. It is difficult to reach and imposing to look at; it is not a small-scale soft design. The shopping mall did what most modern ones will do if given a chance: turn in on itself. The result is a totally interior-oriented mall. This may make excellent sense from a commercial and a building security standpoint, but it means that it is a large monolithic monster with blank walls. In doing so it destroys some major attempts at the pedestrian system. While the building's interior may be soft, it is only open during normal trading hours, which are relatively limited. When it is closed, the shops - with their interesting displays - are totally inaccessible for window-shopping. It is a carefully calibrated architecture which, however unintentionally, results in some "hard" forms for the centre.

The two major large car parks give the centre some feeling of vastness. The housing which was to be built nearby and integrated within the centre has not yet materialised. The result gives the appearance of a typical regional shopping centre amalgamated with a civic centre and other facilities.

This description has not been fully fair, for in fact the careful planning efforts have had some results. Many of the facilities are excellent, invite use, and are in turn heavily patronised. The availability of public transportation is invaluable. Landscaping is careful, although it sometimes gets lost in a maze of brick and concrete. The central square area is at least an attempt at providing softness to the centre. Above all the centre is very colourful - graphics, signs, and painting have all been carefully designed and controlled. Despite some harsh monolithic elements, it gives the impression of being a "happy" place to be.

Management

The centre is managed in effect by the South Australian Housing Trust in coordination with Noarlunga Council. This is more of a policy management only, as each facility has its own hierarchy of management. The State Transport Authority runs the transport interchange; the Colonnades has its own property managers, and so on. As such, evaluation of the centre's management is difficult.

Some aspects are immediately obvious. Maintenance is generally very good, for one. The "Colonnades" is run like a typical regional shopping centre, not like a community facility; commercial decision-making is its bottom line. The hotel is a varied and interesting facility, appearing to cater for a variety of tastes. The recreation centre is intensively used. If there is any gap in all of this it would probably be that there are few if any "community development" activities for a "town centre" that is so large. The new college may provide some of these, as it includes a library and a theatre, but one feels that certain needs are being ignored or not met. Where, for instance, will teenagers find suitable activities? One suspects this might not occur until the group makes some sort of "noise".

Site Security Analysis

Similar to other case studies in this report, the emphasis is on the exterior aspects of the development.

Unassigned or Ambiguous Space

Evaluation of unassigned or ambiguous space in such a development is very difficult. Like the Parks Community Centre, the outdoor spaces are meant to be open and accessible to the public. Nevertheless, some comments can be made. Some of the outdoor pedestrian walkways are very wide and poorly defined. Perhaps the worst one runs along a tall blank concrete face of Myer department store. It is a harsh uninviting area, yet it has a few benches and is evidently supposed to provide a restful outdoor environment. As it does not it supplies little other use but as a walkway.

Some of the central plaza area appears to be vague and undefined. There are planted areas, including a number of levels. Who is to use these and how is not fully certain.

The centre as a whole is currently surrounded by many hectares of undeveloped area. While these are to be developed later on in an integrated manner, at the moment the centre feels to be "floating" in a wide sea of undefined grassy hills and asphalted carparks.

Penetrability

As we have pointed out, public accessibility to various parts of the centre should not be limited as one would in a housing estate. In general public accessibility to areas that need to be protected is not a problem - with the exception of the transport interchange. This rail and bus station is built on a number of levels, and has many overpasses and intricate gradings. These include a number of

back corridors that lead to storage areas and onto roads. There is also evidence of people "cutting through" planted areas. A better limitation of accessibility to these more "private" areas is needed.

Territoriality

The provision of outdoor space of a semi-public or a semi-private nature often enhances the use of a site, as well as controlling some security problems. The only facility that appears to do this is the hotel, which has a number of courtyards, driveways, and attached walkways. Virtually none of the other buildings make any attempt to "claim" outdoor space and to control it effectively. The shopping mall achieves a high degree of "territoriality" in another way - by totalling enclosing itself; virtually the only way to enter the stores is through the mall itself.

Surveillance

In a development the size of and the type of the Noarlunga Regional Centre, surveillance is probably the key security design issue. In this regard the centre does very well - it achieves a high degree of surveillance in pedestrian areas without compromising other design elements. The lines of sight on virtually all the outdoor walkways are good. Where a major walkway to the transport interchange goes underneath a road (Burgress Drive), the underpass has been very carefully designed for security considerations. There are two main parts of the centre where surveillance seems to present a problem: the carparks and in the transport interchange itself.

Like the Parks Community Centre, two major carparks have been provided on the periphery of the centre. This is, perhaps, inevitable in such a large facility that attracts so many users. But these carparks are fully open and receive no surveillance from buildings, only from casual passersby.

The transport interchange is a much more complex problem. Surveillance has been very carefully included in aspects of the design. The ramped walkways are well-laid out from this standpoint, and the "downstairs" railway and bus boarding areas are pleasantly open with excellent sight lines. The bus boarding area, however, has unfortunately included large brick walls by the seating areas; these effectively prohibit any surveillance of people who are sitting down or next to the walls.

There are two other problems with the transport interchange - the maze of back walkways and bicycle paths, and the specific design of the stationmaster office and kiosk. As we have already mentioned, there are a number of walkways in and near the station, including a bicycle path and a bicycle storage area. These, and especially the bicycle storage area, receive very poor surveillance. The windows of the kiosk and the stationmaster office have both been inset into the walls and this have a highly obscured view of the station, vastly limiting the ability for surveillance.

Design Conflicts

The planning of the centre has been extremely careful so that rarely if ever do facilities conflict. The primary design conflict we noticed was a relatively minor one: a pedestrian/vehicular conflict at a number of locations, including the park-and-ride part of the transport interchange, and the hotel's drive-in bottle shop.

Community Influences

The Noarlunga Regional Centre is sufficiently large that it functions as its own "community". There is no housing close by. A number of facilities are located on the north side of Beach road, including a high school, a technical high school, and a police station. As more facilities are actually developed at the centre and nearby, "community influences" may become more important. The opening of the community college will also make the centre more "community" oriented.

Similarly, if and when housing is built adjacent to the centre, this concept will take on a greater importance.

Crime and Security Problems

We have not analysed the crime and security problems at Noarlunga Centre in great detail. Most people report that crime is not a major concern at the centre. Vandalism is a problem, especially in the transportation interchange. This is not surprising considering our design analysis above. Shoplifting is a minor problem from the stores, but is not highly related to our analysis. The hotel occupies a central location in the centre and reportedly some hotel patrons have caused problems over time. We must emphasise, however, that the Noarlunga Regional Centre is still very new, and is constantly growing. Certainly the community orientation of the new college may attract different users to the area, and at a wider range of times. As new facilities are added, security problems are likely to increase. Whether such an increase is simply proportional to use, or whether it has some different relationship is a question worth pursuing. There is no doubt that the design of the new facilities can play an important role in whether or not problems are greater in the future.

Conclusions

The Noarlunga Regional Centre is a new, large and complex development which currently experiences relatively few security problems. The centre has had a long and careful planning process of trying to include user participation. The attempt was to create a human-oriented "soft" architecture. This goal has in part succeeded and in part failed. The most explicitly privately developed parts of the centre follow a traditional form of building, especially the office tower and the shopping mall. These essentially do not participate in a user-oriented design, but emphasise commercial considerations.

Most of the centre functions very well from a security standpoint, and obvious care has been taken in certain aspects of the design. The most problematic area appears to be the transport interchange, which has some serious problems of unwanted accessibility ("penetrability") and surveillance.

The centre is not finished, and a new college with a public library and a theatre will open soon. This will increase the "community" orientation of the centre, thereby providing facilities that are currently in short supply. The effect on crime and security, however, is unclear. New users may be attracted to the centre who may very well increase crime problems. Youth needs do not appear to be well catered for, although few complaints have been received about them.

The large number of varied facilities makes this an unusual and a difficult development to evaluate. As we have seen in the past, management actions and style can play an important role in crime prevention. Yet in the Noarlunga Centre management - through its very diversity - appears to be less important to crime problems. The design of the facilities does appear to influence where problems occur, although it is uncertain whether or not it influences the overall level of crime.

V PUBLIC HOUSING ESTATES IN ADELAIDE

INTRODUCTION

Public Housing in South Australia

Unlike the New South Wales and Victorian Housing Commissions, the South Australian Housing Trust has never constructed high-rise or high-density housing. This is due in part to the fact that standard building form in Adelaide - even in the inner-city - has been low-rise, with few if any residential structures over two storeys high. Indeed large neighbourhoods and almost whole suburbs are built at a single storey. But the Housing Trust also simply resisted the push to higher density housing. They felt, and in retrospect felt correctly, that such building forms would be unsuitable for their "clients".

Crime in South Australian public housing is, quite simply, not a public issue. The problems that do exist do not get written up in the major newspapers. And when crime does occur in Adelaide's public housing areas, it is usually seen as a community, neighbourhood, local council, or police problem, not a public housing problem. This results largely because Adelaide has few public housing "estates", in the usual sense of the term. While avoiding high-density building, the Housing Trust for years also rarely constructed even "medium-density" housing. The great bulk of Trust construction was single units (often for sale) and double-units ("duplex"-type) for rental. Most of these were built in outlying areas of the metropolitan area.

This construction trend in South Australia is changing. Some medium-density flats, often for elderly, have been around since the 1950's. But beginning with the development of the large medium-density estate in West Lakes (Semaphore Park) in the mid-1970's the Housing Trust has begun to develop medium-density estates in earnest. Development of this type of housing changes the nature of how people perceive public housing areas. For the first time, people are starting to describe Trust rental housing areas as "estates". It is two

of these recent medium-density estates that are the subject of our case studies described in this chapter: West Lakes in Semaphore Park and Manitoba in central Adelaide. Reference will be made to other estates as well, particularly the Box Factory estate located adjacent to Manitoba.

We should note that the South Australian Housing Trust is widely accepted as being the most socially sensitive public housing authority in Australia. It is the best managed, the best run, and has been one of the best funded. But public housing in South Australia is not immune to problems. The Trust directly rents to approximately ten per cent of the state's population, and many thousand more people are on its waiting list. As of 30 June, 1981, there were 20,854 applicants on the waiting list, of whom 3,122 were aged. Of the remaining 17,732, 5,910 (33.3%) were single parents. This was a significant increase in the number of single parent families from previous years. Clearly something is happening; a demographic shift of major proportions is occurring. Soon, if not already, large numbers of single parent families will be living in the state's public housing. These families are usually under a great deal of stress. They are also far more vulnerable to crime. It seems an appropriate time to examine the environmental crime prevention characteristics of two recent Trust medium-density developments.

Researcher Involvement

Researcher involvement with the South Australian Housing Trust is extensive. From March through June 1980 the researcher lived at the Manitoba Trust medium-density estate, located a few blocks from central Adelaide. This time period provided extensive opportunity to engage in a "participant observation" form of research in the style of Herbert Gans. During May 1980 the researcher undertake a study for the Trust's senior management on problems of vandalism at the West Lakes estate. This resulted in a report entitled "Vandalism at the Housing Trust West Lakes Estate: An Evaluation With Recommendations" (May 1980). Involvement since that time has continued informally through discussions with Trust personnel in planning, property,

housing services, and corporate development divisions.

MANITOBA AND BOX FACTORY ESTATES

Description of the Estates

Manitoba is a small (33 units) two and three storey medium-density estate located at the corner of Frome and Carrington Streets in the City of Adelaide. It is a short ten minute walk to Adelaide's central business district, and is a part of the Housing Trust's (and the City of Adelaide's) attempt to bring residents back to the inner city. The estate is built of an attractive red brick with red tile roofs. It consists mostly of two-storey three bedroom town houses, with a sprinkling of one-storey and two-storey flats (containing one and two bedrooms respectively). Manitoba was designed by a private Adelaide architect named Ian Hannaford (who also designed Rundle Mall) and opened in 1975.

The Box Factory is a somewhat larger and denser estate located almost adjacent to Manitoba, "Kitty-corner" across Frome and Carrington Streets. Because of its nearness and somewhat similar design, we will discuss both Manitoba and the Box Factory together, concentrating our analysis somewhat more on Manitoba.

The Box Factory takes its name from an old box-making factory which shares its site. Subject to a great fight by local environmentalists and preservationists, the old factory building was not demolished, but converted by the Housing Trust into a community centre serving the southeast corner of Adelaide. The community centre also sports the name "The Box Factory". The housing estate consists of two-storey town-houses and flats located in two and three-storey buildings, one of which is for elderly. Approximately two years newer than Manitoba, this estate was subject to more stringent budget. Thus it is denser

than Manitoba, containing a total of 44 units. The Box Factory estate was designed primarily by Newell Platten while he was serving as the Housing Trust's Principal Architect.

Manageable Space Analysis

Architecture

Generally the South Australian Housing Trust's medium-density designs follow a "soft architecture" form. Manitoba is a good example of this: warm materials are used, such as wood fencing and pergolas. The yards are very useable. Everyone is provided with at least one outdoor space, the flats have one space and the townhouse units have both a front and back garden. The development is highly planted with soft pleasant vegetation, which enhances the effect.

The Box Factory estate provides a somewhat harsher design. One three-storey block of flats (fronting on Carrington Street) comes over as a massive, slightly inhuman structure. One suspects it was built to the size, form, and shape to imitate some nearby factories and warehouses that set the streetscape. However, it does not work well on a human scale. The building's detailing, although fine, is lost in the mass of red brick. A number of brick walls in the interior of the site also present a harsh feeling. The estate seems to lose focus and has no major pedestrian semi-public open space the way Manitoba does. A large asphalted carpark adds to this effect. Finally, the estate's vehicular entrance is from Hurtle Square down a long undistinguished driveway.

Management

Both the Box Factory and Manitoba estates experience similar management styles. The Trust divorces the functions of rent collection and arrears concerns from other housing service officers. Thus the tenancy officers and housing officers are free to establish better relationships with

residents. While the Trust's "estate management" system certainly could not be said to encourage resident participation in management, it is a flexible one, and residents generally feel free to express themselves as their units and gardens permit them.

Site Security Analysis

Unassigned or Ambiguous Space

Manitoba does a very good job of indicating the uses for each space. The Box Factory appears to have much less structured spaces, however. A key area in the Box Factory is its only real outdoor open space, which it uneasily shares with the community centre. There are no cues as to who uses it and controls it.

Penetrability

Manitoba has a carefully graduated series of spaces, following established principles of environmental crime prevention. One enters from the street through a low (unlocked) gate into a large grassed "semi-public" communal open space. This space borders each unit's front yard, with a fence and a gate. Back yards have higher fences. No fences are locked. The estate is not situated on a through-path and thus outsiders are discouraged from entering unless they are going to visit a resident. This is not achieved through locked gates and imposing barriers, but more by symbolic cues.

The entrances to the Box Factory are far less well-defined. Major pedestrian entrances occur between buildings although their location seems more of an afterthought. Passageways are wider, less well-policed and feel more open to intruders. Both the townhouse units and the flats have some significant "symbolic" protection against unrestricted accessibility: the townhouses have front and back yards and the flats have enclosed stairways. In comparison to the medium-density low-rise estates we studied in Melbourne, the

Box Factory estate functions extremely well from a "penetrability" standpoint. However, compared to its neighbour across Carrington Street, it does not do as well.

Territoriality

As we mentioned above, Manitoba has a carefully graduated series of spaces: from the public street to be semi-public communal open space, to the semi-private front yards, to the private unit interiors. Of all of these spaces the front yards work least well as they appear to be too small and too public. If they had slightly higher fences and the units were further set back from the fences, people might use ("claim") the front yards for more activities than storage and growing ornamental bushes.

The Box Factory tries to provide the same sort of graduated hierarchy of spaces from public to private. The one that works least well is the semi-public communal open space. As we mentioned above, there really is very little space of this kind on the estate. The existence of a large number of flats means less territorial claim by residents, because flats do not and cannot provide the same claim on outdoor open space as the townhouse type of units do.

Surveillance

Ian Hannaford, the designer of Manitoba has said that the one place in the estate where a conscious attempt to incorporate "security" design principles was in the communal open space. This central activity area was meant to be lively and extensively used by residents, providing "security in all forms". In designing this, he reports that he was directly influenced by Jane Jacobs (1961) that having people together they will act as their best security agents by taking a real interest in their own environment. By and large this communal space appears to work that way, although because of its limited size it is used actively mostly by children. Adults use it more "passively" walking to and from their units,

as an aesthetic feature, but nevertheless looking out on it (in the best "surveillance" manner) from their units.

In general, surveillance at Manitoba is achieved very well. Perhaps the other surveillance feature of note is the carparking. Residents can park their cars in one of two small communal carparks (of which surveillance is limited), or residents of the townhouse units have the option of parking their cars in their back garden. The back gardens have garage-style doors leading on to streets or lanes and a limited paved area. Providing this flexibility means that most residents can achieve an extremely high degree of surveillance over their automobiles, which are generally their most highly valued possessions.

Surveillance at the Box Factory estate is not as well-achieved as at Manitoba. This is in part due to this estate's higher density and more complex design. Particular problems occur with some pedestrian walkways, which often follow circuitous routes and bend out of sight. These walkways are often bounded by two-metre high brick walls or wooden fences, and often have no windows overlooking them. The vehicular entrance way from Hurtle Square also receives poor surveillance.

Design Conflicts

A major design conflict at Manitoba occurs with the meeting room provided at the western (Frome Street) edge of the development. This room was originally intended as part privately-run coffee-house and part meeting room. The coffee-house never happened, however. The meeting room is constructed almost entirely of glass on its north, east, and west sides, and directly abuts the main pedestrian entry into the estate. This location means that the room is far too public for anyone to use: it is like sitting in a fishbowl. And indeed few people ever do use it. Furthermore the glass walls mean that it acts like a greenhouse in the sunny summer months and becomes far too hot to consider using.

A second, and somewhat minor, design conflict at Manitoba occurs with the pedestrian pathways that run along the edge of the communal open space, right next to people's front garden fences. This in effect further reduces the privacy and utility of the front gardens.

As we mentioned above, a major design conflict at the Box Factory estate occurs with the Box Factory community centre. Although these two similarly named "facilities" share both a name and a site, they are not fully compatible. First, as we have explained, there is a conflict over the use of the inadequately defined small open space that both the estate and the community centre share. Unfortunately, it is the largest piece of open space on the site. A greater problem, however, is that the community centre is a true community facility, playing host to a wide range of groups and activities, and drawing people from both the neighbourhood and occasionally from the whole metropolitan area. All of these outsiders at the community centre negatively affect the housing estate in a major way. Estate residents that live close to the community centre (about ten to fifteen units) feel that they are continually harassed by community centre patrons and activities, often until late at night.

Community Influences

They say that inner-city living is a constant adventure. But what people in King's Cross and Carlton will find ordinary, people in Adelaide often find troublesome. The fact is that the Manitoba/Box Factory neighbourhood is a complex one of many varied and mixed uses. There is an Anscol icecream factory almost across the street, a meat packing plant nearby, and a large number of shops and offices within a one or two block radius.

Particular negative influences come from both the Italian Club (located a few doors away on Carrington Street) and the German Club (located on Angas Street, less than a block away.) Each of these clubs sponsor meetings, parties,

discos and other events so that something "big" is happening nearby many nights a week. All of these events bring large numbers of strangers into the neighbourhood, which cannot be beneficial from a crime and security standpoint.

Finally, the proximity to Hurtle Square may occasionally present a problem. A number of "hostels" are located on the Square, and a number of down-and-out men regularly sleep in the Square. Whether or not these people present an actual security "risk" to the estate residents is difficult to determine.

Crime and Security At Manitoba And The Box Factory

For the first five and a half years of its life, Manitoba has seen remarkably few crime problems. The few problems that have occurred have been minor vandalism and petty theft. Items vandalised include cars, signs, fences, and vegetation. Minor problems of theft have occurred from front or back yards. For the first five years, the estate reportedly had only one burglary, and the circumstances surrounding that were unclear.

Crime problems at the Box Factory have been somewhat greater. A number of attempted break-ins have been reported, including one into an elderly woman's flat while she was in it. Perhaps the most serious complaint by residents has been problems associated with the community centre. Residents report minor vandalism, beer bottles thrown into back yards, and general harassment. The invasion of privacy seems to be at the root of resident negative feeling.

What can we conclude about these crime problems? First, the level of problems has not been high, and the Housing Trust has not seen the need to promote or undertake any crime prevention-oriented actions or programmes. The Box Factory estate appears to experience a significantly higher level of overall problems than Manitoba. Complete statistics on the two estates are not available, however, and these observations are based more on resident perceptions than any "hard" data.

The greater level of problems at the Box Factory may be due to its higher density and greater number of units. It also has more flats, which means less outdoor space is closely identified ("territorially") with housing units, compared to Manitoba. But the Box Factory also has a more intricate design, and has some problems with surveillance and penetrability. Perhaps the key difference is the "design conflict" between the Box Factory housing estate and the community centre of the same name. The community centre attracts a large number of outsiders to the site, and many residents perceive a definite intrusion and threat from its existence.

Finally, we should comment on the resident populations of the two estates. Although the Housing Trust will not state it publicly, the initial residents of Manitoba were very carefully selected. This was done in part because medium-density estates were so new and it was felt important to make this one a public success. It was also done because of the location: building so many units near downtown Adelaide was a new experience for the Trust and the success of this new location was important as well. A result of this very careful tenant selection process has been very little turnover of Manitoba estate residents and a desirable place to live.

The Box Factory estate is newer, less settled, and one suspects that residents were not as "hand-picked" because the previous success of Manitoba meant that the form and location of the estates were no longer risks. The greater number of flats (meaning, perhaps, more mobile residents); the larger and more complex site; and the greater number of units all probably also mean that it is difficult to achieve a sense of community and identity at the Box Factory estate. As we have suggested earlier in this report, such a sense of identity and communal feeling is a key factor in the ability of a community to prevent crime.

WEST LAKES ESTATE

Description of the Estate

The Housing Trust West Lakes estate is a medium-density development located in the West Lakes area of Semaphore Park. The estate is located close to the beach northeast of central Adelaide. The Trust estate consists of 42 hectares of land located at the northern end of the 690 hectare West Lakes development. This area has been reclaimed from marshes and tidal flood plains with extensive filling. The first Trust residents moved in during December 1974.

The historic Bower cottages, located on the northern edge of the Trust estate, have recently been rehabilitated by the Trust and now function as a community centre for the Semaphore Park area. The Trust has also funded part of the salary of a community centre coordinator. The Semaphore Park primary school is close to the centre of the estate. A hotel and a small shopping centre are located close to the southwestern edge of the estate, both within easy walking distance.

A man-made tidal action lake - the primary attraction of the West Lakes development - borders the Trust estate on the east, and is slowly being developed for recreational uses. Private West Lakes sales houses are located to the south and west and older Semaphore Park residential and light industrial neighbourhoods are located to the north of the Trust estate.

The Trust estate was planned according to "Radburn"-style principles, in which pedestrian and vehicular traffic are separated. Open or "green" spaces of both the housing areas and the primary school area are linked by an unbroken pedestrian system. This continuous pedestrian system also links the estate with shops, church, kindergarden and the boat lake.

The Trust estate is being built in stages. Stages one and two are virtually all rental units. These are mostly

one- and a few two-storey houses and townhouses. Stages three and four are still being completed, and consist both of public rental and sale housing. This case study concentrates on stages one and two of the estate.

Manageable Space Analysis

Architecture

The estate's architecture generally follows "soft" design principles. The low roof-lines and brick and tile houses give the estate a suburban style look despite its higher density. The provision of open and recreation space is generous and nearby attractions such as the tidal lake and the beach add to this feeling.

Through a complicated process of negotiation and planning of the South Australian Land Commission, the West Lakes area was developed part by private developers and part by the public sector (the Housing Trust). Originally planning intentions were to integrate ("mix") public and private housing, but this was vehemently opposed by the private developers and the Trust estate was located on the northern edge. Some have suggested that the Trust housing was to provide a buffer between the "middle class" privately-developed sale housing of West Lakes and the older lower-income housing in the Semaphore Park area. At one point it was believed that the private developers planned to actually erect a wall between the Trust estate and the privately-developed lots. There is some evidence to suggest that the Housing Trust clandestinely purchased the lots on the edge of the private estate so as to forestall any construction of a major barrier between the housing areas. Such a barrier would have helped to stigmatize the Trust estate. By preventing this, the Trust actively promoted a softer architecture.

Management

Housing management at West Lakes has been similar to that described of the Box Factory and Manitoba: relatively skilled,

sensitive tenancy and housing officers. Because of the experimental nature of West Lakes, the Trust has paid very close attention to its problems and has engaged in an extensive programme of obtaining user feedback.

Site Security Analysis

Unassigned or Ambiguous Space

The most pressing aspect of ambiguous spaces occurs with the interconnected pedestrian pathway and open space network. Although large areas have been set aside for open space, their uses are often unclear. This is particularly true around the primary school, the oval, the carparks and the end ("bottom") of the cul-de-sac: Ayr Street, West Street, Dorset Street, Teal Grove, Plover Grove, and Ibis Court. A number of pathways are also wider than they need be.

Penetrability

The pedestrian circulation network effectively provides safety for children, but also presents a system of public spaces virtually right up to everyone's front door. It makes many spaces in the interior of the estate far more open to outsiders than would normally be desirable. It also does encourage "cutting through" the estate, especially to get to the local hotel, the shops, and the lake.

Territoriality

In an attempt to provide open and recreation space for the community, a number of front and back gardens have been left to "merge" with public open space. The result is the lack of a clear hierarchy from open public spaces to semi-public and semi-private outdoor spaces to private indoor spaces. Many of the semi-public open spaces of the estate (such as the pathways and recreation areas) effectively become fully public. Similarly many semi-private open spaces - front and back gardens of housing units - effectively turn into semi-public spaces because of inadequate provision of

boundaries, territorial cues, and other privacy considerations. The most serious potential problem is with the boundaries between land identified with specific units and the pathways and recreation spaces.

Surveillance

Surveillance is a definite problem at the West Lakes estate, centred around the communal carparks which are not visible from people's houses. As a result of the "pedestrianisation" of the estate, of the approximately 350 Trust rental units (in 1980) at West Lakes, about 160 have carparking "remote" (away) from the unit. (This figure includes units in all stages of the development.) Public pedestrian pathways often bring pedestrians next to or through unprotected and unsurveyed communal carparks. Surveillance is also a potential problem from a personal safety view at night down many of the lesser-used and highly planted pedestrian pathways.

Design Conflicts

As we have described above, providing safety from vehicles at the estate by separating traffic and pedestrian circulation has conflicted with the needs for surveillance.

Community Influences

A hotel is located almost adjacent to the estate, and it is likely that hotel patrons often will cross the estate on the pedestrian pathways. In general the Semaphore Park area is known as a working-class somewhat "rough and tumble" community, which may influence crime problems.

Crime and Security: Problems and Prevention

History and Scope

The main crime problems at West Lakes centre on vandalism and theft from automobiles parked in the "remote" communal carparks. The carparks which have been the sites of most

incidents (and are of primary concern) are located between Fairford Terrace and Bartley Terrace: Stages I and II of the Trust estate. Problems of car vandalism appear to have surfaced within a year after occupancy of the Trust estate. Initial problems occurred in the Lower Street area (Stage I); after Stage II was completed, vandalism problems appear to have centred in that area, particularly in the Plover Grove and Ibis Court area, from where the most vocal expressions of resident concern now emanate.

Two Housing Trust publications (Ethnographica One by Rod J. Lawrence: May 1976, and Evaluation of Cluster Housing Standards: Comments Based on Experience at the S.A. Housing Trust West Lakes Development by Phillipa Milne and John Lawrie: March 1977) document the historical resident concern about the remote carparking and vandalism.

Lawrence writes:

The most important problem for about one third of the residents sampled (i.e. nine of the thirty), related to the lack of provision of private carparking facilities in the estate. This matter was raised by all those residents who had no choice but to park their motor cars in the open spaces provided ... in this first section of the estate. Less than half of the residents who criticized this arrangement were critical of the walking distances involved, but they were unanimously disturbed by the damage done to their motor cars by vandals and the weather.

Milne and Lawrie write:

Although distances varied from 15 metres to 85 metres with different units surveyed, dissatisfaction with walking distances did not increase in relation to the distance to be walked ... The general feeling which came across was that the disadvantage of remote carparking lay not so much in the distance from the unit, but in the lack of protection for cars.

The number one reason that residents gave for the need for cover was vandalism and theft.

By most accounts, vandalism of and theft from cars appear to be the main crime problems at West Lakes. Problems with cars include: petrol "milking" from tanks, stolen wheels and hubcaps; stolen car radios and tools; and malicious damage, such as broken aerials and windows, spray-painting, and flat tyres. Isolated other instances of vandalism do occur in the area, such as letterbox defacings and uprooted garden plantings, but these are not seen to have the importance of the car vandalism.

A number of attempts have been made to curb these car vandalism problems. For a fifteen-month period from late 1977 until the fall of 1979 the Trust employed Wormald Security Service for night-time car patrols of the area: twice nightly from Sunday to Thursday inclusive, and four times nightly on Fridays and Saturdays. Wormald apprehended no "vandals" and no apparent reduction in car vandalism resulted; the security service was therefore terminated. The South Australian Police Department, through its Port Adelaide station has supplied special patrols, including plain-clothes police and even a 24-hour watch on occasion. Despite these efforts problems have persisted.

There have also been reports of personal assaults occurring as a result of inter-neighbour disputes related to vandalism problems. Some disputes have been reported to the police, but not to the Trust. Some were supposedly not reported because of a fear of harassment and reprisal.

Reasons for Vandalism

There is good reason to believe that a large proportion of vandalism at the West Lakes estate is committed by male teenagers. Despite the Bower Cottages and other recreational opportunities, there is very little for teenagers to do in the West Lakes/Semaphore Park area. Public transit is infrequent (and virtually nonexistent during non-business hours); without a car, teenagers have few places to go or activities in which to participate.

Many residents have blamed the problems of vandalism on (variously) teenagers from Mansfield Park, Angle Park, Ethelton, and other areas. Because a number of Trust West Lakes residents have moved to West Lakes from Mansfield Park and Angle Park, it is likely that their old friendships have continued, thus giving rise to rumours of offenders being visitors from those areas. Nevertheless, the police insist that the vandalism offenders are mostly local - from the West Lakes/Semaphore Park area. They base their conclusions on the type and time of offenses committed. Many people feel that while it is the teenagers doing the "minor" vandalism, local adults are causing the thefts and "major" vandalism.

Is the general level of car vandalism at the West Lakes estate out of the ordinary? Evidence suggests that it is not. The Semaphore Park area traditionally has had high levels of "petty" larcenies, such as thefts from cars and car vandalism. In addition, police report that the level of vandalism at the estate is similar to that of other Trust rental areas, such as Athol Park and Mansfield Park.

Car vandalism appears to have become a major issue at the West Lakes estate for three reasons:

1. Opportunities for vandalism exist because of the unprotected and unsurveyed carparks.
2. The density of development (and numbers of cars) not only highlights the number of incidents, but causes additional ones as a result of inter-neighbour disputes.
3. The residents of the estate have high expectations from living at West Lakes because of its newness, uniqueness, and higher levels of rent. In this context car vandalism has been a bitter blow to many residents, who have expected a high-quality residential environment without problems. In addition, motor cars are the biggest items of expenditure for most residents; repairs and replacements are costly and inconvenient.

Crime and Security: Analysis, Conclusions, and Recommendations

Eliminating Opportunity: Physical Design Solutions

There is unanimous agreement that the modified Radburn planning principles which have led to the creation of remote communal car parks have provided the opportunity for theft from cars and car vandalism. Not only have the lack of surveillance and of lock-up garages contributed to problems, but accidents can cause problems as well: children playing in the car parks can cause accidental damage to cars, and cars can bump into one another in the small confined spaces. The Trust has recognised the difficulties with this method of carparking and is specifically avoiding it in all current and future medium-density developments of this nature.

A number of proposals have been suggested for parking to maximise car security; these have been examined by Trust architects.

Proposal 1: The first proposal would be to provide lock-up garages on the site of the communal car parks. Because of engineering considerations and the location of utilities under the car parks, provision of lock-up garages is estimated to cost about \$4,000 per garage. Space would limit provision to only 60 percent of the current number of parking spaces. This costly loss of parking space (necessitating additional parking areas), would also be unaesthetic and still would not solve the problem of remote carparking: unsurveyed lock-up garages are still unsurveyed. Autos might still be subject to vandalism attacks. Finally, because some households have more than one car, some cars would not be protected by garages.

Proposal 2: The second carpark redesign proposal is to construct a locking gate and fence, thereby restricting access to the car parks. While restricting access is probably a good idea, a number of potential problems arise: How high a fence? What type of gate? What type of lock? It is often likely to be left unlocked and a determined vandal could easily climb the fence. It appears that the Housing Trust favours this

solution. The Housing Trust has since erected experimental security fences around three carparks. Preliminary indications are that they are proving effective.

Proposal 3: The third proposal (perhaps in conjunction with the first) is to construct new roads on the pedestrian pathways, to permit residents to drive right up to their units. In the past residents have occasionally driven over the green spaces to their units as a form of "civil disobedience" to dramatise their demands for car protection. Undertaking this scheme would totally destroy the pedestrian-oriented scale of the development and would convert much open space (both private and public) to roads and car storage. In an estate whose residential densities are already higher than traditional Australian development, this loss of open space would be disastrous.

Recommended Design Responses

For the reasons enumerated above, dramatic redesign schemes for car security are not recommended. However, a number of small-scale redesign responses need to be investigated. Studies of the landscaping, street lighting, and pathways around the communal carparks should be undertaken.

Response 1: By the account of police and other parties, the night-time lighting is poor and needs upgrading. Since research does show that higher levels of lighting are often a deterrent to vandalism and theft, carpark lighting should be increased after a thorough study of the current lighting. New lighting should be located so that it does not shine directly into bedroom windows, and is concentrated instead on carparks and public pathways.

Response 2: In some areas of the estate landscaping is quite dense and lush. While landscaping and greenery are important contributors to resident satisfaction, their location needs careful consideration, so that intruders are not easily hidden and communal open spaces, such as the car-

parks and pathways, are subject to casual surveillance. The landscaping, bushes, and trees in and around the carparks need to be studied, and if necessary, trimmed or replanted, to provide this ease of surveillance.

Response 3: Public pedestrian pathways are often very close to the communal carparks, resulting in a number of strangers walking past unprotected and unsurveyed cars. Some people have suggested that patrons of the nearby hotel, while walking to or from the hotel, have stolen from or vandalised cars. This theory is not supported by data on car vandalism on the nearby Manley Circuit, a cul-de-sac of private houses also near the hotel pathway. Cars on Manley Circuit havenot had major problems of car vandalism. While casual surveillance of cars is possible from the pathways it is recommended that a study of public pathway redesign be done so that passers-by are restricted - insofar as is possible - from casually walking through the communal carparks.

Resident Disputes and Dissatisfaction: A Housing Management Response

It is important to recognise that the density and form of the West Lakes estate are significantly different from those to which most South Australians (and certainly most West Lakes estate residents) are accustomed. Traditionally the Trust's "housing management" responsibilities have involved tenants in single and double units. With the different form and higher density of West Lakes, it may be necessary to re-examine Trust management practices and procedures.

It is clear that two management changes are needed: more tenant education about crime prevention and the life-style offered in medium-density housing; and a more active involvement of Trust tenancy and housing officers in the management of the West Lakes estate. This may necessitate additional tenancy personnel and perhaps the establishment of an on-site full-time tenancy officer. (This trend has already begun with the reduction of units served by the West

Lakes tenancy officer). Undertaking these actions would permit Trust personnel to take a more active involvement in the West Lakes estate, rather than simply reacting to problems and concerns.

Very strong evidence suggests that in some areas a part of the major car vandalism results from inter-neighbour disputes, generally focussing on domestic jealousies. It has been suggested that single-parent families and the periodic absence of some husbands is destabilising to the neighbourhood, especially children, and issues of resident leadership. Careful allocation practices can avoid some of these problems.

Reports exist of other acts of vandalism (to houses and gardens) and even personal assaults occurring as a result of inter-neighbour disputes. It is in these disputes that Trust officers must take an active interventionist role. Nevertheless, it appears that in the past the operational policies of the Trust's tenancy department have made it difficult, if not impossible, to deal appropriately with these problems. The Trust must undertake a "strong" management presence in situations of neighbour disputes, including, if necessary, eviction for troublemaking residents. Such strong actions may be politically unpopular, but the alternative would be to allow disruptive residents to continue their practices. In an area of high density, such as the West Lakes estate, this could have very detrimental consequences.

As noted above, many West Lakes residents have high expectations from their environment. These stem from the higher rent levels, and the newness, uniqueness, and prettiness of the estate. In this context car vandalism is especially grating. Resident demands for radical redesign of carparking, as described above, have been vociferous. The strength from these demands is probably related to a feeling that "the Trust will give in and do what we want". It is essential that the Trust be firm and clearly instruct residents that no major redesign of the West Lakes estate will occur. Not to be firm on these issues will encourage increasing levels of resident expectations and demands.

At the same time that a firm response is needed to resident demands, the Trust should inform residents of the proposed landscaping, lighting, and pathway redesign studies. The conclusions and recommendations of these studies should be discussed at length with residents before any actions are taken. The most successful anti-crime measures are ones in which residents are actively involved, if only on a co-ordinative and consultative basis.

Social and Youth Services

Finally, it would be a severe mistake to neglect the provision of social and youth services in the area. The Trust should continue its policy of recognising that it has more responsibilities than a private landlord, and support close working relationships between Trust personnel and the local council, the Department for Community Welfare local office, and the Port Adelaide police station. Similarly, the Trust needs to stay in close contact with social, community, and church groups.

Since it is generally recognised that a significant portion of the car vandalism is done by local teenagers, the Trust should support activities to serve these youth. One possibility would be to hire unemployed youth to work as apprentice gardeners and maintenance personnel. It would also be worthwhile to consider the suggestion of the Report of the Community Welfare Advisory Committee on Vandalism (1978), that a Neighbourhood Youth Worker provide direct outreach to local youth:

Providing a facility is not sufficient; personal contact with young people to help them develop socially and personally is also needed. If young people are able to identify more positively with their communities, there is less likelihood of vandalism.

CONCLUSIONS

In this chapter we have examined those recently constructed South Australian Housing Trust medium-density estates ranging in size from 33 units to many hundred units. Despite their location almost adjacent to one another, we noticed several differences in the problems experienced by the Manitoba and the Box Factory estates. In this instance we can almost hold "estate management" as a constant variable, and attribute the differing level of problems to size, density, and specific design of the estates. A key factor appears to be the lack of communal open space of the Box Factory and in particular the inadequate buffering of the estate from the community centre located on the same site.

The West Lakes Housing Trust estate has a vastly different location and design: a suburban-style Radburn system. A high level of car vandalism problems have been observed at West Lakes. These appear to be due in part to design faults, specifically the inadequately surveyed communal car parks. However, a high level of neighbour disputes have also occurred, which both cause and exacerbate the problem. Efforts at preventing these problems have not been particularly successful.

We have studied these three estates because they are new, interesting, different, and the prototypes for future Housing Trust designs. However, equally worthy of study are the old lower-density "double-unit" Housing Trust rental areas in communities such as Elizabeth, Salisbury, Mansfield Park, and Angle Park. Because of generally higher rates of deprivation and other social problems, crime rates in these public housing areas are likely to be much higher than in the estates we studied. It is here that density and the form of the housing is the key: the lower-density estates (in Elizabeth, etc.) are rarely classified as estates although they often consist of communities of solely public housing residents. To begin to think of these areas as "estates"

may lend a certain stigma to them, although one can argue that the stigma already exists, and powerfully at that. But what thinking of these other areas as "estates" will also do is to force us to examine their social and crime problems as a totality. From this we might very well conclude that despite their relatively low density, the location, form, management, and maintenance of the public housing are key factors in their social functioning. In these estates, specific site design is not terribly relevant from a security standpoint, but overall community design is very important.

The role of estate management in Australian public housing is undergoing some major changes, partly because of increases in medium-density low-rise housing estates, which offer a different lifestyle and necessitate different social arrangements between management and tenants and among the residents themselves. But estate management is also changing with decreasing public housing construction, and with the changing emphasis towards effectively "managing" the existing rental stock.

VI PUBLIC HOUSING ESTATES IN MELBOURNE

INTRODUCTION

The Crisis of Melbourne Public Housing

Harry Parsons, a former commissioner of the Victorian Housing Commission, when asked of his impressions of crime in Melbourne public housing, wrote the following initial opinions:

There has been very little crime in Australian high rise ... Although the high rise blocks are treated in the media as enclaves of poverty, the policy of the past few years has been to offer an alternative (house) to any family in high rise willing to transfer. The poverty and particularly the scale of high rise in the United States is not present in Australia, and the skin colours of the high rise poor, and suburban rich are similar. Thus with cheap clothing and informal dressing styles normal to suburban and inner metropolitan areas alike, the poor lack the colour visibility and identity seen in the equivalent sizes of cities in the United States.

There has been no prohibition; there is no right to bear arms (so that pistols are a rarity, owned mainly by pistol club members); there was relatively full employment from 1945 to 1975; gambling is largely state run; hard drugs are still not a significant problem, numerically; and the States have more and simpler powers (than those in the U.S.). Chester Rapkin told me in passing that Melbourne in 1974 was like the very peaceful middle class white New York of 1924 (I think he was being complimentary).¹

Parsons also mentions problems of vandalism, false fire alarms, and dropping things off high rise building balconies. But the general tone of his argument is that crime is not really a problem in Melbourne public housing. His observations are apt ones, but comparison with crime problems in inner city American ghettos serves to belittle the large

1. Letter from Harry Parsons to Donald Perlgut, 23 January 1980.

and growing number of problems which Melbourne public housing estates, both high and low-rise, are experiencing.

The fact is that a significant percentage of public housing in Victoria is in, or is rapidly approaching, a state of crisis. While much of Australian public housing is experiencing similar problems, Victoria has the most publicly visible, and perhaps the most pressing problems. Inhuman and institutional design of many housing estates has combined with years of neglect to produce many badly deteriorated "problem" estates. While the high-rise estates are the most visible and therefore the focus of much attention, low-rise and medium-density estates (often located in outer metropolitan areas) experience similar difficulties. For many years residents have been allocated to forms of housing without regard to their social needs. Increasingly housing estates are being populated by single-parent families and those receiving public assistance. The lengthening waiting lists consist in large part of similar "vulnerable" and "stressed" families.

In 1979 the Victorian Ministry of Housing (which has now taken over all the functions of the former Housing Commission) began a Green Paper on Housing, "to facilitate community discussion of the available options for housing policy in Victoria" (Victorian Ministry of Housing 1979). This document brought up a number of questions relating to issues of crime and vandalism and the planning, design, and management of estates. The Ministry has also established a High-Rise Working Party and a low-rise Estate Improvement Working Party to examine and propose comprehensive improvement programmes for housing estates. Issues of crime and vandalism are ones of top priority for both of these working parties. (For more information see Victorian Ministry of Housing 1980a, 1980b, and 1980c.)

Researcher Involvement

Researcher involvement in environmental crime prevention problems in Victorian public housing has been extensive. This

began in March 1980 with field visits to problematic high-rise estates and discussions with the Green Paper Secretariat. This continued in July 1980 with an invitation to address Ministry staff on crime prevention and environmental design and to spend a week visiting the Ministry's housing estates. In August extensive "site" visits occurred along with consulting assistance to the Ministry: both "technical assistance" to the staff in areas of crime prevention and housing social factors, and assistance to the senior management in the preparation of policy recommendations relating to crime and security. In November 1980 more site visits were made, and in January 1981 consulting assistance was provided to the Ministry's High-Rise Improvement Project and the Estate Improvement Programme. Issues of crime and vandalism were a major focus of this assistance, but many other aspects were considered as well, including design elements, estate management, resident involvement, and community development.

Scope and Structure of the Case Studies

During the course of this research, we visited over twenty public housing estates in and around the Melbourne metropolitan area. These ranged in size from twenty units to many thousand units, and in age from a few months to almost forty years. Four housing estates with representative problems and opportunities will be discussed in depth: three are primarily high-rise - Flemington, Collingwood, and Richmond, and one is low-rise - Westmeadows section of Broadmeadows. In addition, we will analyse together a group of five low-rise estates: Glengala, Braybrook, Gronn Place, Hales Court, and Olympic Village. Because of the great number of design and management similarities among the estates, the manageable space analysis and site security analysis will be done once for the high-rise estates as a whole and once for the low-rise estates.

One of the problems with case study research in topical areas is that events often overtake the researcher. Since this original research was undertaken (March 1980 to January 1981), a great deal has happened involving crime prevention and estate upgrading programmes of the Ministry of Housing. A number of problems mentioned in this chapter have since been addressed and numerous new initiatives and innovations have been instituted. Where possible, we have mentioned these in the discussion and analysis. This has not always been possible, however. Thus the case studies are "historical" in the sense that they are up to date only to early 1981.

HIGH-RISE ESTATES

This section describes and analyses the environmental crime prevention problems of three Melbourne inner-metropolitan high-rise estates: Flemington, Richmond, and Hoddle Street, Collingwood.

Description of the Estates

The Flemington, Collingwood, and Richmond estates all have inner-metropolitan locations in generally older working class areas. Neighbourhoods surrounding them are mixed residential, commercial, and light industrial. Both Flemington and Richmond have large numbers of "medium-rise" (four-storey) buildings. The high-rise buildings are predominantly built from precast concrete and almost all twenty storeys high with eight to eighteen flats on each floor, shared laundry and drying facilities and lifts serving alternate floors. The four-storey blocks are walk-up buildings with eight flats leading off each interior stairway. They are also predominantly constructed of pre-cast concrete. Almost all buildings have been designed with an open columned area on the ground floor. Occasionally community rooms or offices are located there.

The Hoddle Street, Collingwood estate is a relatively compact one, consisting simply of two twenty-storey buildings and surrounding open space, carparks, etc. The Richmond and Flemington estates are larger, with five and four high-rises respectively, and numerous four-storey buildings as well. Carparking at Collingwood is at ground level and in a (largely unused) immense underground carpark; at Richmond parking is at ground level and in a multi-storey carpark; and at Flemington carparking is solely at ground level. Each of the estates have management offices and a few other services such as kindergartens. The Collingwood estate office is a one day per week office for rent collection only.

Park of the Flemington estate is set aside for elderly residents, although generally elderly live next to and among families. A large number of families are headed by single parents and a very large number are non-English speaking migrants. These ethnic groups include Greeks, Turks, Lebanese, Yugoslavs, Spanish, Vietnamese, and other Indo-Chinese. All of the estates were built in the 1950's and 1960's by the Victorian Housing Commission, which still operates the estates in its new form of the Ministry of Housing. In the past part of the Richmond estate has also been used for housing military families.

Manageable Space Analysis

Architecture

Victorian public housing high-rises have correctly been faulted for their "hard" architecture. The buildings look and feel institutional. This is accentuated by the fact that in Melbourne virtually no one except a public housing resident lives "high". Recognition of some of the problems of living in these high-rises began in 1967 with the publication of High Living: A Study of Family Life in Flats by Anne Stevenson, Elaine Martin, and Judith O'Neill. Scanning the Melbourne skyline, three things stand out most

prominently: the Dandenong Mountains (on a clear day), office towers in downtown Melbourne, and the Housing Commission high-rises.

The precast concrete construction is only the beginning of the "hard" feel. Almost all fittings and fixtures are of concrete and bleak-looking. Laundry drying areas look like gaols. Ground floor lobbies are made of tile, brick, concrete, metal, and reinforced glass (or increasingly Lexan or other glass substitute). There are no carpets; there is little vegetation except for grass. If residents wanted to make their own imprint on the environment outside their unit they could not. The physical environments are generally solid, immovable, and fixed in concrete. Generally, two lifts service each building, one stopping at odd-numbered floors and one stopping at even-numbered floors. Service is inadequate and the frequent breakdowns are extremely unsettling, especially for the elderly and those living on upper floors. The alternate-floor lift service adds a certain insult to the injury of living in an institutional environment: no private development would provide such mean facilities.

Management

There is a widespread feeling that the housing management style has consistently been of a very "hard" variety. Management has traditionally assumed all responsibilities for maintenance and estate care. Until very recently, when many more management functions were regionalised, all major decisions were made at central office, including allocation and transfer decisions. Despite the recent change in these policies, it is widely recognised that management continues to allocate people to housing which they do not want and which is not suited to them.

Estate management staff are given no formal job training. There is also a persistent feeling among managers that staffing is inadequate, a situation which is particularly aggravated by estate management positions which remain unfilled for long periods of time. Many estate management staff suffer from

what Michael Lipsky (1980) terms the problems of "street level bureaucrats": they "chronically lack resources to do their jobs, in part because the demand for their services never eases ... If service resources increase, pressures develop to serve more clients or reduce the backlog of unmet client needs." In addition, the estate managers are also the rent-collectors, an extremely time consuming job and a source of friction with residents. All of these factors combined have produced an unfortunate tradition of hard management among Victorian public housing managers.

Site Security Analysis

Unassigned or Ambiguous Space

These three high-rise estates suffer greatly from this problem. One of the main problem areas is the underside of buildings, most of which are built in "stilt" fashion, with nothing at ground floor level. The wide open spaces in the estate grounds are a second area of difficulty: they are rarely related to housing units in any way, are too far from any individual units, are generally left bare and open, and thus unused.

Penetrability

The high-rise housing estates effectively permit almost anyone to go virtually anywhere in the estate. All spaces are fully "public" right up to each flat's front door. Stairways have no doors on them and can be entered at every floor and at ground level. Lobbies, mailrooms, lifts, laundries, and carparks are all totally accessible with no security or attempt to control movement.

The week of one site visit to the Richmond estate, two people had committed suicide by jumping from upper floor open hallways. The Ministry of Housing reports that, of some thirty persons who have committed suicide from the high-rise

buildings, only two were tenants of the Ministry at the time. The most important factor for these suicides would be the convenience of the high-rise buildings. The fact that so many non-residents have suicided from the buildings also underlies the public (and institutional) nature of the buildings, into which outsiders are hardly discouraged from entering and using for their own purposes (i.e. suicide).

Territoriality

Residents cannot effectively make any territorial or "space" claims outside of their individual units. Even laundry rooms on each floor are perceived to be public in this manner. There is no provision of "community garden" space or similar activities. No territorial cues have been provided. The estate grounds often become, in effect, public recreation areas for the surrounding neighbourhoods. At Collingwood a school uses part of the estate grounds as its sports fields.

Surveillance

The lack of surveillance is probably the most serious problem that these three estates face. The lifts, stairways, lobbies at ground floor, lobbies on other floors, mailrooms, public toilets, laundry areas, rooftops (which are often left unsecured), carparks, building "undersides", and surrounding grounds all suffer from poor surveillance. These problems are compounded at night by less frequent pedestrian use and inadequate lighting in many locations. Almost the only places that do not suffer from poor surveillance are the walkways immediately outside the units of the high-rise buildings, as kitchen windows face out on them. In the four-storey buildings, however, the interior stairwells have virtually no surveillance. Perhaps the greatest problems can be found in the carparks. The underground carpark at Collingwood resembles a huge cave and is so dangerous that no one will park there and few will even venture inside it.

Design Conflicts

There are many small-scale design conflicts too numerous to list here. Perhaps the biggest conflict relates to children's play. Small children will play on the exterior hallways immediately outside the flats. These are very narrow areas not suited for play. One possible result could be neighbour conflict. Other children, seeking areas for hard surface play, can be found on walkways and roads and in the carparks.

Community Influences

These large-scale housing estates both look and feel institutional, and are known within their communities as places over which the residents exert little or no control. This means that outsiders are attracted to the estates because they feel that no one is able or willing to exert control over the area. All the estates are located by major streets, especially Collingwood and Flemington. The large amount of traffic in the neighbourhoods further decreases the potential for community feeling. The mixed commercial and industrial aspects of the estate neighbourhoods adds to these trends.

Crime and Security at the Flemington Estate

The Flemington estate is known as one of Melbourne's most violent housing estates, and has received media coverage in this area. Management does not encourage this media coverage and feels the estate is often presented in a worse light than it really is. A wide range of crime and vandalism problems occur at the estate. Particular problems stem from youth gang members, many of whom do not live on the estate itself. Holland Court, a cul-de-sac leading into the estate, appears to be the focus for the worst problems. Elderly residents appear to be the most fearful of crime by the youths. Conflict between ethnic groups (Greeks and Turks, for example) is also an occasional problem at Flemington.

Violence on the high-rise estates was recently (June 1981) highlighted by a number of incidents at the Canning Street estate in North Melbourne. For a short period of time, a sniper with an air rifle was shooting at residents from a high-rise building. Over ten people were wounded. In addition, one building had one lift car totally destroyed and the other made unusable for eight days. This relatively high level of conflict was attributed in part to tensions arising from a recent influx of Vietnamese residents to the estate.

A major management initiative to help residents and respond to their environmental needs occurred recently at Flemington, when the estate field staff fenced off a courtyard of four-storey buildings. They specifically chose a green plastic-coated chain link fence for its cost (chain link is least expensive) and less institutional feel (the green plastic). Residents in this area (near the lower end of Holland Court) had requested the fence to help give their area more identity, "territory", and supervised area for children's play. At the same time estate managers worked closely with residents and began to achieve some noted success in reduction of vandalism and youth problems. Management staff could not be spared indefinitely, however. Once the special attention was withdrawn, resident attempts at controlling their courtyard gradually lessened and disappeared. The estate field staff feel that with extra staff they could put continued effort into projects like these and achieve some long-term benefits.

Some residents have also approached the estate managers requesting that locked doors, gates, and fences be installed to limit access to individual staircases of the four-storey buildings. The estate field staff feel that these efforts to control "penetrability" are worth pursuing, but they appear to be uncertain as to how to proceed. It is obvious that a project planner would be extremely helpful in assisting these proposals, especially as they have been resident-initiated.

The Ministry of Housing spends hundreds of thousands of dollars a year to employ three private security services to police the Flemington estate and nine others. Estate field staff feel that the security guards themselves may be creating more problems than they solve by their presence on the estates. Some estate field staff even claim that the crime and vandalism problems have increased since the institution of the private guard service on their estate.

There are many problems with the guard service at Flemington. The security guards always arrive in large groups (up to six at a time) "for protection", which seems to gall both trouble-prone youth and other residents alike. Many youth feel challenged by this to try and provoke a real fight. The guards have been known to hassle or to provoke youth, stemming from personal "vendettas" on the part of some guards. Estate field staff also feel that the guards sometimes exaggerate incidents and may even be provoking incidents so as to rationalise their existence by proving "what a violent and crime-prone place" the estate is. Use of the security service to control crime is complicated by the lack of any formal system of recording crime and violence. Thus no effective evaluation of the security service can really be made.

In response to these problems, the estate is finalising a programme to involve off-duty security guards in voluntary recreation activities. The purpose would be to help break down the barriers between estate residents and the security service.

In the course of discussions with estate and district field staff we proposed that the funds spent on the security service be redirected to employing "Community Service Officers" directly responsible to estate managers. These officers would be primarily concerned with resident liaison, minor maintenance and security service and work primarily during the critical night-time periods. The officers would not be guards per se, but unarmed patrol/service personnel who would call on police when situations demanded it. This was an attractive proposal

to the estate field staff, especially as it would directly increase their staff numbers. However, the less traditional nature of the idea means it will most likely not be implemented.

Crime and Security at the Collingwood Estate

The Collingwood estate suffers from the same range of crime problems as the Flemington estate. Particular problems are damage to lifts, throwing of objects from the open corridors, and other vandalism and youth problems. These are all being exacerbated by a resident population that increasingly consists of single parents and children. Fifty-seven percent of households have only one adult member and eighty-five percent of households have children.

The single most serious crime problem on the estate is the existence of an extremely large underground carpark. The carpark covers a number of acres and has only two vehicular and a few pedestrian entrances. It is poorly lit - dark even on sunny days, full of trash, highly vandalised, and totally unused. There is absolutely no surveillance of the facility. It is rumoured to be the location for rapes and muggings. The Ministry of Housing has recently closed off the carpark and is investigating alternative uses for it.

Through its high-rise estate improvement programme (see the pilot study of September 1980), the Ministry of Housing has proposed a comprehensive programme of design and management changes to "upgrade" the estate. The following security-related actions are included in the proposals:

- Enclosure of access balconies;
- Security systems at ground floor level;
- Redesign of ground floor facilities and lobby;
- Security systems on residential floors;

- Rationalisation of car parking and other site use; and
- Improved identity and public image of the development.

These proposals are all the result of a long planning and consultation process. One of their main purposes is to increase resident feelings of territoriality by introducing a hierarchy of spaces (from private, semi-private, semi-public to public) within the estate where none currently exists. Casual surveillance would increase, as well as the minimisation of ambiguity and containment of conflicting uses. Goals also are to return publicly used land to the residents by delineating boundaries clearly, encourage casual contact among neighbours, and improve management functioning through more accessible and sensitively designed facilities.

Few specific decisions on final proposals have been made. One that appears definite, however, is the enclosure of the access balconies with ventilated glass screening. The Ministry assumes that this will:

- prevent objects being thrown from the balconies;
- prevent people falling (or jumping) from the balconies;
- enable residents and others to use the ground adjacent to the buildings in safety; and
- allow internal finishes to be upgraded and promote better utilisation of these spaces.

In general the Ministry has been following accepted standards of environmental crime prevention, based on social and psychological research. We see the proposals for new car parking arrangements as absolutely critical to a comprehensive redesign scheme, and would therefore like to propose five principles and suggestions for carpark redesign:

1. Close off the dangerous unused underground carpark immediately until an alternate use for or decision on the space can be found or made. (Already done).

2. Provide adequate lighting for car parks.
3. Locate parking close to buildings.
4. Maximise casual surveillance by passersby and from residents' units themselves.
5. Utilise fencing and other means to help buffer car parks from major pedestrian thoroughfares and active children's play areas.

Crime and Security at the Richmond Estate

The Richmond estate experiences a wide range of crime and vandalism problems, similar to both Collingwood and Flemington. There are major problems with people throwing objects from the access balconies, vandalism, and marauding gangs of youths (especially at night). At the time of researching this estate, a small company provided armed security guard patrol on Saturday and Sunday nights plus two other ("floating") nights throughout the week. Estate field staff feel this service has helped decrease problems, especially vandalism, while others are less sure.

The "hard" management tradition on this estate most likely contributes to crime problems through lack of resident contact and understanding. This attitude is symbolised by an estate field officer's answer to the question of what was the "greatest problem" on his estate; rent arrears. The management concern for too long has been not with people, but with the mechanics of management: paying the rent, filling in the forms correctly. This problem arises from both local and central office attitudes.

A minor experiment carried out at the Richmond estate in 1978 shows some of the difficulty management has had in understanding resident needs and reactions. A group of housing officers from the New South Wales Housing Commission reported at the 1978 Housing Officers Conference

in Melbourne that the Sydney high-rises had carpets in the public hallways, including the lifts, and all was well-maintained and respected. The Victorian Housing officers decided to see if it would work in Melbourne and installed carpets in the lifts (only) at the Richmond estate, especially to see if it had any effect on the incidence of persons urinating in them. They did it, however, without telling any of the residents why and without any other improvements, either physical or managerial. The results were that the carpets were rapidly destroyed. The managers evidently did not understand the failure of their carpet "pilot project" and appear to have concluded at the time that any estate upgrading programmes would not be appreciated by the residents.

To the credit of the Ministry of Housing's senior managers, they realise the need for a radical change in management style and structure. To this end they have undertaken two innovative initiatives: hiring a former Emergency Housing Officer for the City of Frankston as a resident estate supervisor, and supporting a pilot resident-management scheme for the high-rise buildings. Andrew McCutcheon, former mayor of Collingwood, an architect and long-time housing activist (and currently Member of Parliament), was hired as a consultant (paid by the Ministry) to the resident council to assist the resident management scheme. The resident council has been referred to as Richmond's "little United Nations", as its members have been carefully selected to reflect the diverse ethnic and racial composition of the estate. A recent estimate of this composition is:

Anglo-Saxon (Australian, English, etc.) ...	38%
Turkish ...	19
Indo-Chinese ...	16
Yugoslav ...	13
Greek ...	6
Spanish ...	5
Arabic ...	2
Other ...	2

This range of ethnic groups poses special community development problems which this pilot scheme is attempting to face head on. This willingness to promote management innovations may only have an indirect effect on crime and vandalism. The most direct impact will be on community participation and feeling. But these are the first - and essential - steps in beginning to return control to the residents over the events and the spaces on their estate.

High-Rise Public Housing in Melbourne: Conclusions

We have examined the characteristics and crime and security problems of three high-rise public housing estates. Because the estate design is so similar (all made from pre-cast concrete slabs), security design problems show consistency in all three estates. Because of different styles of management and the Ministry's decision to attempt innovative problem-solving programmes, the response to crime and security problems on each estate is dramatically different. At Flemington a guard service provides extensive "security" coverage, the success of which, however, is subject to some debate. Estate field staff feel that they have the expertise to deal with security problems, but are seriously lacking staff and other support. In Collingwood the Ministry is concentrating on a wide range of physical upgrading solutions, most of which will enhance security through increased territoriality and other means. In Richmond the emphasis is on changing the style and structure of the estate's management, particularly by encouraging a pilot scheme of resident self-management.

The general emphasis of the security proposals is on management, or on schemes for which management input is essential. This is an appropriate emphasis: because of its front-line position, estate management has the most direct and immediate responsibility for security measures. These programmes generally work to improve the training, skills, and sensitivity of estate management activities, or to provide an environment in which management can function better.

These are both appropriate directions and consistent with the principles of environmental crime prevention.

LOW-RISE ESTATES

This section describes and analyses the environmental crime prevention problems of six Melbourne outer-metropolitan low-rise estates: Westmeadows (in Boardmeadows), Glengala, Braybrook, Gronn Place, Hales Court, and Olympic Village. Each of these estates have been included in the Ministry of Housing's low-rise Estate Improvement Programme, although detailed proposals have not yet been made. (See Victorian Ministry of Housing 1980b).

Description of the Estates

Westmeadows is located in the City of Broadmeadows on the very edge of the metropolitan area near the International Airport. The Housing Commission has been developing housing in the City of Broadmeadows since 1951, including over 8,200 houses (of which 75% have been sold) and many hundred flats. Westmeadows itself consists of two parts: houses (primarily sold) and some very new (1979-1980) medium-density rental housing. A high school and a primary school lie at the centre of the estate, which is isolated and very poorly served by shops and public transportation. The landscape is bleak and desolate with grassy hillsides and rocky windswept gorges.

Glengala is located in the City of Sunshine on the western fringe of the metropolitan area about fifteen kilometres from central Melbourne. Of the over 1,200 houses completed in the last ten years, over eighty percent have been sold.

Braybrook is also located in the City of Sunshine, about ten kilometres west of central Melbourne. Over fifty-five percent of the 2,100 houses have been sold. There are also 450 walk-up flats, all about twenty-five years old. Among other problems, these buildings are experiencing extensive structural defects.

Gronn Place is located in the City of Brunswick about eight kilometres north of Central Melbourne. It consists of one hundred walk-up flats in concrete buildings. Although adjoining estates are not experiencing hardship, Gronn Place lacks community identity. Recent painting and gardening efforts have dramatically improved the environment.

Hales Court (City of Northcote) has about one hundred concrete walk-up flats, five miles northeast of central Melbourne. Part of this twenty year old estate consists of flats for military personnel, some of which are vacant and occupied by squatters.

Olympic Village is located in the City of Heidelberg about twelve kilometres northeast of central Melbourne. It was originally constructed almost thirty years ago to provide housing for the 1956 Olympic Games. About one-third of the six hundred houses have been sold, and there are three hundred walk-up flats in concrete buildings.

General Security Design Analysis

The six estates studied in this section comprise many thousand units in many different locations. Both houses (many of which have been sold) and many different styles of flats are included. For this reason we will not attempt a specific "manageable space" and "site security" analysis, but provide some general comments on their design and management characteristics.

Maintenance

The greatest single problem observed at these estates (especially the rental areas) is poor maintenance. Much of this is simply deferred routine maintenance which has progressively slipped behind schedule, thereby causing greater and more expensive problems. Another cause of the badly maintained estates is negative resident reaction to the

estates themselves, expressed either through vandalism or through simple lack of caring. An environment that no one cares for induces further neglect. Poor maintenance usually gets worse, creating its own momentum.

Facilities and Design

Besides general maintenance problems and upgrading needs of buildings, four special areas of physical concern stand out. Two of these areas are very specific: poorly designed and located parking, and the lack of community facilities. The other two areas of concern are more conceptual: poorly defined resident territory and "personal space" (territoriality), and unrestricted access to most parts of the housing estates ("penetrability").

Parking on Commission estates, although often provided in sufficient numbers, is generally poorly located and designed. Two general principles should be followed in redesign:

1. Bring a resident's parking space as close as possible to his or her unit without interfering with other functions such as provision for children's play and visual or aural privacy. This may be achieved through providing a space inside a resident's fenced-in front yard.
2. Provide surveillance of parking areas. Do not locate them in obscure parts of an estate and provide sufficient lighting.

The concern the Ministry has expressed on community facilities is an important one. A primary focus should be on providing community meeting rooms and lounges. In this context there are four important considerations:

1. Spaces should be flexible to accommodate diverse groups and activities.

2. Spaces should be centrally located and accessible while retaining aural and visual privacy for user groups.
3. Spaces should be well-managed and maintained, with involvement of resident groups or committees.
4. Spaces should not be monopolised by outside groups such as community welfare or health services.

The lack of defined territory of estates has been the cause of many management and vandalism problems. Most medium- and low-density estates are amenable to some sort of territorial redefinition: providing residents with their own yards, gates, and fences. If done with skill and sensitivity lower maintenance costs and fewer management problems will result.

Most Commission estates allow almost total access to all parts of the site. This penetrability means that strangers cannot effectively be excluded or challenged. Realignment of pathways, closing up short-cuts and generally defining what activity belongs to what space will greatly decrease the feeling of "totally public" residential environments.

Crime and Security: Problems and Prevention

Glengala

This estate suffers from management understaffing, vandalism, unemployed youth, and especially poor provision of recreation and community facilities. New facilities need to be concentrated near the existing shops in an attempt to give a focus and a "centre" to the community. A major tree planting programme would also help. The existing creek is an excellent recreation resource, ideal for a linear park. Because of maintenance concerns, problems of surveillance, and vandalism, selected easily accessible portions of the creek could be developed for children's play. Care would have to be taken to buffer these areas from neighbouring houses.

Braybrook

Problems at the Braybrook estate are very complex, and include: vandalism, high turnover, poor recreation facilities, burglaries and assaults, understaffing of management, poor community facilities, and a high proportion of single parent families, low income persons, recent migrants and unemployed youth. The reputation is so bad that even tenants in high-rise blocks are refusing transfer to this estate.

The two major design problems are the lack of territorial definition and the easy accessibility ("penetrability") to outsiders. A programme of defining the unassigned open spaces is needed. Similarly, marking out individual yards and identifying them with units may also permit locating resident parking spaces within individual yards. A major buffer is needed between the flats and the adjacent shopping centre, which is a serious "design conflict" to the residential and community feeling on the estate.

Gronn Place

This estate experiences a high turnover rate and has many very needy families. Residents also complain about the lack of child care facilities, poor maintenance, youth harassment, and a lack of community identity. The recent painting and maintenance improvements on this estate appear to have made a major impact. Some small, sturdy, and well-designed changes could facilitate further positive impacts. These changes might include fencing along walkways and plantings that will visually shield buildings, thereby providing privacy.

Hales Court

The problems at this estate include a large number of unemployed youth and single parent families and poor access to community facilities. The estate is in a terribly run-down and vandalised condition. A combination of design strategies and management changes would be appropriate to

counter the serious maintenance and vandalism problems:

1. Additional lighting along the side of the estate which faces the river. Because of the river and heavily wooded nature of this area, there is very poor surveillance.
2. Realignment of roads and parking areas. In some cases carparks are located right next to bedroom windows (a design "conflict"). Vehicular access is not well structured and parking not well-defined.
3. Fencing and defining some "semi-private" and "semi-public" outdoor space. Despite the low-rise nature of the estate, (except for a few small balconies) all of the outdoor spaces, courtyards, etc. are fully public in nature.
4. Increase in management personnel, including a resident caretaker. The lack of care and attention paid to the estate by management personnel is one of the most contributory factors to the vicious cycle of poor maintenance and vandalism.

Olympic Village

This estate is experiencing a complicated mixture of problems that feed upon one another. There is a high degree of vandalism and a range of other crimes. This is exacerbated by poor recreation facilities, understaffing of management, and a high proportion of residents who are very low income, single parent families, recent migrants, and unemployed. There is a very high turnover and a very high vacancy rate, which leave only the residents who have less choice in housing.

A major programme is needed of both small-scale changes to blocks of units and large-scale community development activities. Similar to the other Melbourne estates we studied, many units suffer from a total lack of territorial definition. Yards should be defined and identified with units, perhaps

locating parking within the yards. For the walk-up blocks, the creation of a "sense of entry" into each building is important, utilising landscaping, benches, and other amenities. Undertaking this can reduce the "institutional stigma". Redesign should also discourage the accessibility ("penetrability") by outsiders, giving residents more opportunity to take control over their own spaces.

Westmeadows

The isolation and vastness of the City of Broadmeadows makes security design problems even greater. The community has a totally inadequate public transportation system, a lack of community facilities, and extensive resident apathy. A large proportion of the community is disadvantaged in some way and the result for a long time was a total inability by the community even to attempt to overcome crime and associated social problems. Juvenile delinquency and extensive vandalism are in danger of becoming fully accepted aspects of community life.

In contrast to the other estates studied in this section, Broadmeadows has begun a number of actions to alleviate some problems, notably the completion of a large community leisure centre that includes an indoor pool and extensive sports facilities. The Westmeadows Heights area, however, has made the greatest strides.

Under the leadership of a resident named Jan Cochrane the Westmeadows Heights Progress Association was formed. First priorities were simply to obtain a letter box and a public telephone box for the community. Next the association encouraged the Housing Commission to work with the Broadmeadows Council and Education Department to implement an open space and recreation programme. This resulted in football, hockey and soccer fields, bicycling areas, a cricket pitch, footpaths, lighting and trees, planted by the residents. With a grant from the state and the Broadmeadows Council, Jan Cochrane was hired as a

community development officer for the area. Later on Mrs. Cochrane was hired as a community development consultant by the Ministry of Housing.

Using the local schools as a focus for activity, the residents kept organising and planning. One result was a state-funded infant welfare and small community centre. But one of the biggest problems in this isolated community of over 530 families was the lack of a local store to buy food, newspapers, and other sundry items. Through dint of hard negotiations and organising the progress association signed up 800 members (at ten dollars a head) and launched their own cooperative milk bar and newsagency: the first one in the state of Victoria. The building is leased from the Housing Commission; the shop is owned by the residents and run by a seven member directorate who have hired a couple to manage it.

The response to such resident self-development has been overwhelming. Jan Cochrane was featured on many television and radio programmes. Newspapers from the Melbourne Age (17 September 1980) to the Australian have written laudatory articles and editorials. An Australian editorial of 8 August 1980 read:

Just like the television jingle suggests, the people of Westmeadows - a small, still raw and new industrial suburb on the outskirts of Melbourne - took matters into their own hands when they found they needed conveniently close shopping services and set up their own corner shop style co-op milk bar and newsagency. They didn't bleat "the government should do something" or sit about waiting for somebody to supply what they wanted. They got busy and did it for themselves...

This is a happy story, but what can it tell us about environmental crime prevention? One of the first things to notice is that the support and accolades for this co-operative store ranged across the political spectrum, including Liberal and Labour politicians, and left-wing

and right-wing oriented people. The question is, why? It seems that resident self-help and community development programmes "from below" appeal to political conservatives because "they didn't bleat 'the government should do something'", as The Australian noted. In addition, fiscal-minded government was not asked to provide funds. Similarly politically "progressive" people laud such an undertaking because it embodies some of the best elements of socialist principles: action by the many for the common good, and control by the "people". This widespread political agreement on the value of cooperative movements is not a new phenomenon, and is discussed in detail by John Turner (1976) in his book Housing By People.

The effect on crime in the Westmeadows Heights area by the extensive community development activities cannot be easily quantified. The most direct impact is on community attitudes and self-perception, symbolised by a comment by Jan Cochrane in the Melbourne Age (17 September 1980):

The suburb has a label and it is difficult to get away from it. That stigma is probably at the base of what I'm working towards... You have to work very hard to change attitudes. You know, I wouldn't move from Westmeadows if we won Tattsлото. Simply because of the people and their enthusiasm. They are so much richer in themselves here, they really want to help themselves.

It is the breaking down of community stigma, letting residents know that they can directly control what happens in their community that is one of the most important principles of environmental crime prevention. One suspects that compared to this, small elements of site design become far less crucial in the safety of a community.

Low-Rise Public Housing in Melbourne: Conclusions

We have examined six low-rise public housing estates in Melbourne, ranging in size from about one hundred units to many thousand units. Most of these are located on the outer

edge of the metropolitan area, mostly to the north and to the west, where public housing estates have traditionally been concentrated. Each of the six estates have been included in the Ministry of Housing's Low-Rise Estate Improvement Programme.

The housing estates experience a number of security design problems. Surveillance, especially of carparks and walkways, is often poor. Estates have not been well defined, so that they are highly accessible ("penetrable") to outsiders and residents have little support in asserting territorial behaviour. In addition, wide open unassigned spaces have been left that are not cared for or maintained by anyone. Conflicting uses are often found nearby, such as shopping centres. Above all the estates are isolated, poorly served by public transportation, and thus highly stigmatised. All of these factors contribute to problems of crime and vandalism.

We have seen consistent problems of management understaffing, vandalism, severely deteriorated structures and inadequate maintenance, and especially poor provision of recreation and community facilities. Social problems include unemployed youth, and a high proportion of single parent and very low income families. These problems all combine to produce an overwhelming resident apathy that means any community development or crime prevention programmes are difficult to institute. Partly through the inspired leadership of Jan Cochrane, the Westmeadows Heights section of Broadmeadows appears to have overcome many of these socially-based impediments to community organisation and cohesion. Considering its high degree of support and encouragement from all elements of the political spectrum, the success of Westmeadows Heights deserves further study.

To this end, Jan Cochrane has been employed by the Ministry of Housing as a consultant on community organisation in other public housing estates. Not to demean Mrs. Cochrane's great achievements in Westmeadows, it is just possible that she will not be able to duplicate the degree of success at other estates. One suspects this may happen because as a long-time resident of Westmeadows, Jan Cochrane knew the

community and its problems and had a powerful commitment to its betterment. It is all the more important for the Ministry of Housing to understand exactly what has happened in Westmeadows and why. The use of innovative, creative, and socially motivated consultants in low income communities are admirable projects for the Ministry to pursue, but ultimately the community development successes will rest on each community's own resources.

In developing and coordinating crime prevention programmes based on a community developmental model, it is of primary importance to work from a basis of the community's own resources first. As Lynn Curtis and Imre Kohn (1980) point out, security design changes thought up by professionals will almost always be far less effective than security redesign proposals by residents, no matter how unsophisticated they may seem.

VII RECOMMENDATIONS AND CONCLUSIONS

ENVIRONMENTAL CRIME PREVENTION: RESEARCH FINDINGS

Summary

This report has summarised a number of carefully selected case studies of public developments and community facilities with respect to crime prevention through environmental design. This "environmental" approach to crime prevention encompasses not only the planning and physical design of developments, but their management as well.

Chapter I of the report described in depth the field and the theory of crime prevention through environmental design, including the issue of "environmental determinism". It also presented the framework for the analysis of the case studies, which includes "manageable space" (see Perlgut 1981b and 1982) and "site security analysis" (Brill 1979). Specific elements utilised include "hard" and "soft" architecture and management; and six criteria for analysing the site design of development and facilities.

Chapter II of this report investigated one specific crime which relates most directly to environmental crime prevention: vandalism. As vandalism is always an act against the physical environment, and as its causes are often rooted in the environment itself, it is probably most amenable to prevention through "environmental" means. Chapters III through VI examined a wide range of public and semi-public developments, ranging in size from small housing estates and small public libraries to very large housing estates and complex multi-functional and multi-use community centres and shopping developments.

Focus of the Research

This research has been more descriptive and qualitative than quantitative. The essence and the thrust of this study has been a process and policy orientation. This has meant

that the bulk of research effort has been spent on examining questions which do not lend themselves easily to quantification: relationships between government departments, interaction between architects and managers, or between managers and staff, or managers and users; levels of knowledge and expertise of personnel involved in developing and managing facilities; and institutional reactions to problems of crime and vandalism.

The lack of adequate and comprehensive small area crime statistics has also compounded this problem. Collection of useful crime statistics is an area which has received more support in Australia during the past few years. Nevertheless, these statistics emanate from, and are primarily used by criminal justice professionals, including lawyers, judges, police, probation workers, etc. Architects, planners, and facility administrators rarely use these and virtually never contribute to them. The development of pilot small area crime statistics projects - on a neighbourhood level, for example - would provide these professionals with information that would be extremely useful for the planning and development of new facilities as well as replanning of existing ones.

Thus this research study has not attempted to prove statistically that crime can be prevented through environmental design. This relationship has been investigated at great length by others (see Mayhew et al. 1979, Newman 1972, Rubenstein et al. 1980). The study hypothesised at the beginning that there was an important link between not only the physical design, but the planning and the management of public developments. Each of the case studies shows that these components can directly affect criminal behaviour in and towards a facility. As the case studies also show, however, such links are usually complex. While we can influence crime through environmental methods, by no means is it the total answer to such problems. But as this research also points out, the environmental approach is usually the only one readily available to designers, planners, and managers. Utilising such an approach is often highly cost-effective as well.

POLICY RECOMMENDATIONS

The following is a series of policy recommendations which have arisen during the course of this research project. Specific planning, design, and management recommendations relating directly to individual case studies have been mentioned during the discussion of each case study and are not repeated here. Following each recommendation is a list of those levels of government to whom the recommendation is addressed: Federal, State, and/or Local.

1. Further research in the area of environmental crime prevention should be undertaken as a matter of urgency.
(Federal, State)

It is well known that social research in Australia receives far less funding per capita than in the United States or the United Kingdom. In the area of crime prevention research generally, and environmental crime prevention research specifically, Australia is heavily reliant on overseas research. Nevertheless demography, geography, institutional structures, and crime patterns generally do differ in Australia. Considering the major (and increasing) costs to the community at large of crime, it is of paramount importance that further research in the area of environmental crime prevention be undertaken. Such research should be oriented towards providing useful information for planners and policy-makers so that we do not repeat the mistakes of the past.

2. Post-occupancy evaluation of facilities and developments should be widely instituted. (State/Local)

A post-occupancy evaluation (POE) undertakes to study a building or facility after the residents or users have moved in and normal functioning of the development has begun. In this type of a study, the development's design is systematically evaluated through observation,

interviews, and other means, to see how well it works and what the problems are. It is also important that information gathered from such an evaluation be fed back to the designers and planners; preferably they will be involved in the evaluation themselves. Instituting a system of POE's would have three useful consequences for crime prevention.

- (i) Changes in the facility can be undertaken to fix problem design elements;
- (ii) Planners and designers can learn quickly and directly from such mistakes rather than informally or not at all; and
- (iii) Manager/designer contact would be encouraged, which would assist designers in understanding the problems of facilities management, and managers in understanding how certain design elements are intended to be used.

3. Training in social factors generally and in crime prevention specifically should be instituted for planners and architects. (Federal, State, Local)

Such training would include subjects in university architecture and planning courses as well as "on the job" and other training courses for practising professionals.

4. Crime prevention considerations should be included in the physical and social planning process. (State, Local)

Major developers, both public and private, should be encouraged to contact and liaise with police during the evaluation of new planning and development schemes. Police representatives, as well as professionals trained in understanding social consequences of developments should be included on project planning teams for major

developments. During the course of this research, a number of lectures were given on this topic in Adelaide, Melbourne, Sydney and Canberra. The reception to these lectures was excellent and there is obviously a great interest in pursuing this.

5. Police personnel should receive training in understanding the nature of the physical environment. (State).

One of the reasons that police have rarely been able to make a useful contribution to physical planning is that few of them have any training in understanding crime prevention through physical design. Such training has occurred and notable contributions made by police overseas, especially in the United States.

6. Housing and building codes should be amended to include security standards. (State, Local)

Such amendments might include requiring adequate (i.e. dead-bolt) locks on outside doors. A number of household insurance companies in major cities are already requiring such security fittings before they issue insurance coverage.

7. Security design and planning guidelines should be developed and utilised.(State, Local)

Design guidelines are an increasingly accepted and desired phenomenon. Well-researched and widely disseminated security guidelines would assist greatly in the design and planning of new developments. For example, designing facilities which can be easily maintained without looking sterile and institutional is of major importance in preventing vandalism.

8. Facilities management should receive a much higher status and allocation of resources than it currently does.
(State, Local)

The managers of facilities - whether they be of housing estates, community centres, shopping centres, etc. - currently receive little or no training in management techniques, and almost never any training in crime prevention. For too long, "management" of facilities has been an undervalued occupation. The result is that managers must make do with generally inadequate resources. Any realistic crime prevention strategy which is aimed at preventing problems at these developments must start with the managers. While designing new facilities is more exciting and publicly glorified, the great majority of all facilities we will be using in the future have already been built. Thus if we continue to ignore the importance of management, it will be at great cost in the future.

9. Facilities should be encouraged to develop consistent reporting and record-keeping of crime and vandalism incidents. (State, Local)

Earlier in this chapter the problem of inadequate small area crime statistics for facilities planning was discussed. Inadequate record-keeping of crime and vandalism incidents means that it is not possible to develop crime prevention strategies when needed as the necessary information is unavailable.

10. Special attention should be paid to the problems and needs of youth. (Federal, State, Local)

It is well known that a majority of crime committed are by young people. Certainly the great bulk of most vandalism is committed by teenagers. While it may not be possible to prevent all of this juvenile crime, it is incumbent upon policy-makers to spend more time, attention, and resources on youth needs and problems. Youth

unemployment is increasing rapidly. Ultimately crime prevention programmes will need to be carefully oriented to youth so as to be the most successful.

11. Projects and programmes which encourage "community responsibility" for the "environment" are the most likely to be successful and should be supported.
(State, Local)

As this report shows in the discussion of the Broadmeadows cooperative (Chapter VI), "self-help" projects are popular with all shades of the political spectrum. The analyses of public housing estate design also show that encouraging personalisation and local community control over the housing estates is one of the most effective ways to reduce crime problems. It is also one of the cheapest. It is important that technical assistance be provided for local citizen initiatives that will help people "take control" over their environments, thereby reducing the incidence of crime.

12. The greatest care should be taken with public education programmes about crime prevention. (State, Local)

As this report mentions in Chapter II (also see Ward 1973), vandalism public education programmes have often proved to have the opposite effect from their stated goals: rather than reducing vandalism, "advertising" it has sometimes coincided with even greater outbreaks. Similarly, other crime prevention programmes can have the effect of stirring up a higher level of fear of crime in a community than is called for. Finally, the costs associated with such programmes may be way out of proportion to any benefits received. This is not to argue that public education programmes are not sometimes desirable or necessary, but that they must be undertaken only with the greatest of caution so

as not to produce unwanted side effects (more vandalism, higher levels of fear of crime, etc.).

13. Interagency coordination should be strongly encouraged in developing comprehensive crime and vandalism prevention programmes. (State, Local)

Not only do professional groups rarely talk with one another (i.e. architects, police, etc.), but different government departments often have little communication with one another. To achieve crime prevention through environmental means it is absolutely essential that a number of organisations, departments, and professional groups work closely together. The development of project planning teams (mentioned above) is one means to do this.

14. All anti-crime and anti-vandalism measures should be periodically evaluated for their effectiveness. (Federal, State, Local)

Serious evaluation of crime prevention efforts will enable decision-makers to shift resources over time to meet the most important needs. Evaluation should be built into new programmes as they are begun.

15. In a time of diminishing public sector resources, environmental crime prevention becomes even more important. (Federal, State, Local)

All of the discussion about major budgetary cuts in public sector programmes and personnel does not mean that there is less money available: it simply means that political priorities are currently directing these funds away from certain areas (i.e. social services) and into others (resource development). Nevertheless, increasing financial restraint is likely to become even more evident in the next few years. This has had some direct and unfortunate

effects on a number of developments studied. The Parks Community Centre, for instance, has been completed at a far slower rate than initially planned, and numerous staff vacancies have been left unfilled for long periods of time. This has resulted in a decreased capacity to respond to user needs, with a number of implications for crime and vandalism. Similar staff cuts are in evidence in most of the developments studied, especially public housing estates. This is producing a system of delivering public services (whether it be through libraries, community centres, or housing estates) which has far less "slack" in it, and thus less room to manoeuvre and take care of mistakes. In the context of crime prevention, these financial constraints serve to underline the absolute importance of good planning, good design, and good management of public facilities.

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APPENDIX APEOPLE AND ORGANISATIONS CONTACTEDSouth Australian Housing Trust

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Wendy Highett
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Peter Peppin
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 Jane Lazarevic
 Tom Emodi
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Inspector Cornish, South Australian Police Department.

Jeff Smith, Planning Department, Noarlunga Council, South
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Andrew McCutcheon, architect/planner consultant, Melbourne.

Jan Cochrane, Community development consultant, Melbourne.

Gib Wettenhall, Fitzroy-Collingwood Rental Housing
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Peter Allen, Brotherhood of St. Lawrence, Melbourne.

Eva Learner, La Trobe University.

Keith Gordon, New South Wales Housing Commission, Sydney.

John O'Grady, New South Wales Housing Commission, Sydney.

Michael Fiertag, National Capital Development Commission,
 Canberra.

Trevor Love, Department of Capital Territory, Canberra.

Plus numerous other architects, planners, and facility
 managers in Adelaide, Melbourne, Sydney, Canberra, and London.

APPENDIX BFACILITIES AND DEVELOPMENTS VISITEDSouth Australian Housing Trust

Semaphore Park, West Lakes
 Manitoba, Adelaide
 The Box Factory, Adelaide
 Margaret Street, North Adelaide
 Dr. Kent's Paddock, Kent Town

Plus numerous others in Elizabeth, Salisbury, Angle Park,
 and Noarlunga.

Victorian Ministry of Housing

Broadmeadows (Westmeadows, Banksia Gardens, others)
 Richmond
 Flemington
 Collingwood (Hoddle Street, Wellington Street)
 Carlton
 Fitzroy
 North Melbourne (Canning Street)
 Williamstown
 South Yarra
 South Melbourne (Park Towers, Raglan Street, Beaconsfield
 Parade, Emerald Hill)
 Maidstone (Glengala, Braybrook)
 Coburg (Gronn Place)
 Northcote (Hales Court)
 Heidelberg (Olympic Village)

Salisbury Council, South Australia

Council Offices and Main Library, John Street
 Ingle Farm Recreation Centre
 Ingle Farm Library
 Salisbury North Community Centre
 Para Hills Library and Senior Centre
 Para Hills Swimming Centre
 Salisbury Swimming Centre

New South Wales Housing Commission

Riverwood
 Hampstead, Five Dock
 MacArthur/Campbelltown (numerous)
 Sirius (The Rocks)
 Woolloomoolo (numerous)
 Malabar Heights
 Little Bay
 Redfern
 Waterloo

National Capital Development Commission, A.C.T.

Fraser Court, Kingston
Causeway
Narrabunda
Jerrilderie Court, Reid
De Burgh Street, Lyncham
Emu Ridge
Spence Street
Baringa Gardens

Other Facilities

Parks Community Centre, South Australia
Noarlunga Regional Centre, South Australia
Erindale Centre, A.C.T.

CRIME PREVENTION AND THE DESIGN AND
MANAGEMENT OF PUBLIC DEVELOPMENTS:
AN INTERNATIONAL BIBLIOGRAPHY

Report of a research project funded by the
Criminology Research Council, Canberra

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March 1981

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I INTRODUCTION

This annotated bibliography is one report of a research project which investigates the planning, design, and management of community facilities and other public developments with attention to crime prevention. This research is being conducted by the Social Planning and Research Unit, in the School of Social Studies, South Australian Institute of Technology, Adelaide. The principal investigators are Donald Perlgut and Wendy Sarkissian. The research project is funded by the Criminology Research Council, Canberra.

The literature review concentrates on crime prevention and environmental design, but also investigates general concepts of crime prevention, the fields of architectural psychology and sociology, social planning, and housing and other facilities management. Rather than simply focussing on issues of planning and design, this bibliography includes works on crime and the practical management of public developments and community facilities. The bibliography does not cover the wide body of general criminology and criminal justice policy literature, although a few Australian references in these areas are noted. Similarly, studies and reports on the geography of crime, residential crime, and commercial and industrial crime are noted only if they are applicable to the overall direction of the research effort.

Recognising that social research findings are widely shared among countries, and that problems of crime and vandalism are shared as well, this international bibliography draws references from the United States, the United Kingdom, and Australia. Sources are listed not by the nationality of the author, but by the country of publication. Most references, with a few exceptions, have been published and sufficient information has been supplied to locate the sources. Crime and crime prevention are mentioned daily in the newspapers and with frequency in news weeklies; references to these articles have not been included for reasons of brevity; only more "substantive" works are listed.

In some cases articles in a collection are listed individually by author; at other times the entire collection is listed only once under the editor's name. The decision to list in one way or another was influenced by the following factors: the complementary nature of the articles; their relative importance and originality; and whether or not the article (partly or in its entirety) has been published elsewhere.

The general field of crime prevention and environmental design is a relatively new one (its genesis occurred in the mid to late 1960's). Many of these earlier works

have been documented extensively in other bibliographies. Therefore, along with a number of the "classics" in the field, most of the references in this bibliography date from about 1975.

The United States leads as the country with the most published works in the field. Only a small portion of American sources are therefore included. This American "dominance" is in part due to a larger population and to higher rates of crime and violence in that society. However, it also results from many years of government-funded research and action projects by the Law Enforcement Assistance Administration and the U.S. Department of Housing and Urban Development. Much of the British research results from projects funded by the Department of the Environment and Home Office. The massive government commitment to "council" (public) housing has also contributed to the relatively large body of research on public housing problems.

Much of the American and British literature concentrates on crime in public and other subsidised housing, in part because of the visibility of many housing estates, the concentration of poor and problem families on the estates, and the massive public investment in the housing stock. American crime literature concerns revolve mostly around residential burglary and violent crime, while British literature emphasises vandalism.

There is no doubt that Australia has very few publications in the area of environmental crime prevention. This is in part due to a general reliance on overseas research in certain fields; it also reflects, however, much lower rates of crime, violence, and vandalism. The reasons for lower crime rates are complicated, and are connected with societal structure. They relate historically to the absence of a severe urban race problem, relative full employment for the thirty years after World War II, and the general absence of a hard drug "problem".

The lack of an environmental crime prevention approach in Australia can also be related to two other factors: the density of Australian cities and general attitudes towards crime prevention. Physical density is important for environmental crime prevention, with its emphasis on personal surveillance, territoriality, and other "urban" pedestrian-type functions. With the notable exceptions of parts of Sydney and Melbourne, the auto-oriented suburban form of Australian cities has historically limited these opportunities to take an "environmental" approach to crime prevention.

A relatively traditional attitude towards crime prevention has played a role in this lack of research as well. In Australia crime prevention has generally meant changing policing patterns or the rehabilitation of ex-offenders, rather than looking at the "situations" or "environments" in which crime takes place and then attempting to modify

these situations. This points to wide gaps among police, criminologists, town planners, architects, social workers, and other government administrators which are only beginning to be bridged.

In part because of the paucity of Australian sources, a number of general Australian criminal justice references have been included. The obvious recommendation from this discussion is that further research needs to be undertaken in the comparatively "nontraditional" areas of crime prevention in Australia. The most pressing need is to try to identify the relationships between the physical form of urban development and rates and types of crime. But we need more than academic research in this area; we need a carefully planned programme of crime prevention "action research", where new solutions are proposed, planned, implemented, and evaluated. Such projects should be joint Commonwealth-State efforts. Not only do we need to understand current patterns, we need to search for innovative methods to help us meet the challenge of the changing world of the 1980's.

Notes on Abbreviations

U.S.G.P.O. = United States Government Printing Office
H.M.S.O. = Her Majesty's Stationery Office

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Descriptive account of the geography of delinquency in urban Brisbane.

Biles, David (ed.) (1977) Crime and Justice in Australia. Melbourne: Sun Books.

Braithwaite, John and David Biles (1980) Crime Victimization in Australia: A Comparison With the U.S. Canberra: Australian Institute of Criminology.

Compares U.S. and Australian national victimization surveys.

Clifford, William (1980a) "Criminology and Planning", in William Clifford et al., Plotting and Planning. Proceedings of an International Course in Crime Prevention Planning held at the Australian Institute of Criminology from 17 May to 15 June 1979. Canberra: Australian Institute of Criminology.

Analyses the relationship between the fields of criminology and town planning.

Clifford, William (1980b) "Physical Planning and Crime Prevention", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

General discussion of the role that all types of physical planning can play in crime prevention efforts.

Community Welfare Advisory Committee on Vandalism (1978) Report. Adelaide: Community Welfare Advisory Committee.

An excellent and well-researched document on the problems of vandalism in South Australia. Provides an in-depth survey of the facilities, organisations, agencies, and individuals concerned with the problem. Includes

sections on the type of person responsible for vandalism, educational and publicity campaigns, penalties and compensation, and numerous recommendations.

DeGruchy, Graham, and Garry Hansford (1979) Crime and Architecture in Brisbane: Pilot study of the relationships between the crimes of break and entry and the urban and architectural environment in four Brisbane commercial sub-centres. Report of a research project funded by the Criminology Research Council, November 1979. St. Lucia, Queensland: Department of Architecture, University of Queensland.

Examines crime and physical design features of a number of commercial areas in Brisbane. One of the few pieces of crime and environmental design research in Australia.

DeGruchy, Graham, and Garry Hansford (1980) Crime and Architecture in Brisbane II: A follow-up study of the relationships between the crimes of break and entry and vandalism and the urban and architectural environment in Brisbane commercial sub-centres. June 1980. St. Lucia, Queensland: Department of Architecture, University of Queensland.

Extends previous research to two additional sub-centres.

Gibbs, A. G. (1976) Vandals of the 20th Century. Melbourne: Victorian Railways Board.

Grabosky, P. N. (undated) Law and Order in South Australia: An Introduction to Crime and Criminal Justice Policy. South Australian Law Department. Adelaide: Office of Crime Statistics.

An excellent short introduction to the South Australian criminal justice system and patterns of crime rates.

Hewison, R. W. (1980a) "Town Planning and Crime Prevention", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Discusses the role that demography, city form, and community facilities play in promoting or preventing crime. Advocates planning smaller and more compact cities.

Hewison, R. W. (1980b) "The Citizen in the Heart of Our Cities", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Advocates smaller scale and more human design to provide greater feelings of safety and security in downtown areas.

Marjoram, J. (1980) "Crime Prevention Planning - A Field-work Approach to Regional and Local Case Studies", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Discussion and description of crime prevention case studies in five areas: Albury-Wodonga, Bathurst-Orange, Campbelltown (Macarthur), Sutherland, and Geelong.

Minnery, J. R. (1980a) "Conflict and Cooperation in Criminology and Urban Planning", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Analyses the causes of conflict between crime prevention concerns and urban planners. Proposes that planners re-evaluate their basic assumptions and tools for planning implementation.

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Minnery, John R. and G. D. Veal (1981) "Crime Perception and Residential Mobility in an Inner City Suburb", Paper presented at the Review of Criminological Research Seminar, February 1981. Forthcoming in the Proceedings. Canberra: Australian Institute of Criminology.

Investigates the links between perceptions of crime in Spring Hill, Brisbane and residential mobility.

Osmond, Sir Douglas (1975) "Vandalism", in Kids and Crime, Proceedings of the Australian Crime Prevention Council 8th Biennial Conference, Adelaide, 20-27 August 1975.

Parkin, Andrew (1977) "The Homicidal Nation: An Investigation into Violence in the United States", Politics: Journal of the Australasian Political Studies Association, Vol. 12, no. 1, May 1977, pp. 78-88.

This article seeks to identify the root of American violent crime, and sketches its political implications.

Perlmut, Donald (1981) "Crime Prevention for Australian Public Housing", Forum: Quarterly Journal of the Australian Crime Prevention Council, forthcoming early 1981.

Analyses crime and vandalism concerns in Australian public housing estates and proposes a method to develop comprehensive crime prevention programmes.

Richards, Denbigh (ed.) (1976) Crime Prevention: Planning and Participation in Geelong. Report of a February 1976 Seminar organised by the Barwon Regional Crime Prevention and Corrections Council. Canberra: Australian Institute of Criminology.

Scott, David and Robert U'ren (1962) Leisure: A Social Enquiry into Leisure Activities and Needs in an Australian Housing Estate. Published for the Brotherhood of St. Laurence. Melbourne: F. W. Cheshire.

Classic study of housing resident leisure and social needs.

Touw, Carel van der (1976) Vandalism in Schools: First Report. Research and Planning Directorate. Adelaide: South Australian Education Department.

Reviews vandalism problems and solutions in South Australian public schools.

Victorian Ministry of Housing (1980a) High-Rise Improvement Program Pilot Study - Hoddle Street, Collingwood. Prepared by the High-Rise Working Party, September 1980. Melbourne: Ministry of Housing.

A comprehensive look at the problems of an inner-city high-rise estate in Melbourne. Issues of crime and vandalism are major concerns.

Victorian Ministry of Housing (1980b) Estate Improvement Program - Interim Report (Draft). Prepared by the Estate Improvement Working Party, November 1980. Melbourne: Ministry of Housing.

Draft report and recommendations for improving problematical low-density estates. Includes both management and design sections. Crime and vandalism are major concerns.

Whitrod, R. W. (1980) "Police Policy Planning", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Includes a good discussion on why Australian police have not become more involved in comprehensive long-term crime prevention planning.

Wilson, Paul R. and Jill Brown (1973) Crime and the Community. St. Lucia, Queensland: University of Queensland Press.

Wilson, Paul R. (ed.) (1977) Delinquency in Australia. St. Lucia, Queensland: University of Queensland Press.

Wilson, Paul R., John B. Braithwaite, Greg Smith, and Peter Hines (1974) Prevention of Delinquency in Planned Urban Areas. An Interim Report. Criminology Research Council Project No. 2/73, 30 October 1974. St. Lucia, Queensland: University of Queensland.

Investigation into crime patterns in the Brisbane suburb of Inala, a predominantly housing commission area.

Winterbottom, D. (1980) "Regional Planning and Crime", in William Clifford et al., Plotting and Planning. Canberra: Australian Institute of Criminology.

Discusses the crime prevention implications in regional development.

III SOURCES FROM THE U.S.A.

Angel, Shlomo (1968) Discouraging Crime Through City Planning. Institute of Urban and Regional Development Working Paper no. 75. Berkeley: University of California.

One of the early works investigating the relationship between the physical and social environments and crime. Discusses locations and causes of crime in the city of Oakland, California. Hypothesizes relationships between the number of people using an area and the crime level.

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Becker, Franklin D. (1974) Design for Living: The Resident's View of Multifamily Housing. Ithaca, New York: Cornell University Center for Urban Development Research.

Survey of resident concerns in multifamily housing developments.

Becker, Franklin D. (1977) Housing Messages. Stroudsburg, Pennsylvania: Dowden, Hutchinson, and Ross.

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Brill Associates, William (1976a) Controlling Access in Highrise Buildings: Approaches and Guidelines. July 1976. Washington, D.C.: U.S. Department of Housing and Urban Development.

This report deals with the use of controlled access entry ways as a means of increasing security.

Brill Associates, William (1976b) Victimization, Fear of Crime and Altered Behavior: A Profile of the Crime Problems in William Nickerson Jr. Gardens, Los Angeles, California. July 1976. Washington, D.C.: U.S. Department of Housing and Urban Development.

This report is one of a series on "Victimization, Fear of Crime, and Altered Behavior" in public housing projects. The reports aim at gathering statistical information to be used for a comprehensive security plans at the projects. One section deals with building design and location of crimes committed.

Brill Associates, William (1979a) Planning for Housing Security: Site Security Analysis Manual. Prepared for Office of Policy Development and Research, U.S. Department of Housing and Urban Development. Washington, D.C.: U.S.G.P.O.

This manual is designed to assist those people interested in or responsible for developing and managing multifamily housing projects. The manual helps to uncover the negative features of a site's design that contribute to crime and to develop solutions to these deficiencies. The manual presents specific criteria with which to analyse a site, provides a step-by-step framework for the analysis, and presents some design guidelines.

Brill Associates, William (1979b) Planning for Housing Security: Site Elements Manual. Prepared for Office of Policy Development and Research, U.S. Department of Housing and Urban Development. Washington, D.C.: U.S.G.P.O.

This manual is intended to help persons involved in the management, development, and improvement of housing projects to determine how site elements such as shrubs, trees, bushes, ground covers, walls, and fences - as well as manufactured items - can most effectively be used to help provide a safe, secure, and attractive environment for residents.

Brill Associates, William (1980a) Planning for Housing Security: Household Safety and Security Planning. Prepared for Office of Policy Development and Research, U.S. Department of Housing and Urban Development. Washington, D.C.: U.S.G.P.O.

This manual is an introduction to two survey instruments for assessing crime problems in public housing. The surveys are designed to provide information about the extent of crime in public housing, the fear of being victimized by that crime, and the degree to which people alter their behaviour as a result of that fear.

Brill Associates, William (1980b) Planning for Housing Security: Assessing the Social Environment. Prepared for Office of Policy Development and Research, U.S. Department of Housing and Urban Development. Washington, D.C.: U.S.G.P.O.

This manual is designed to explain how to assess the social environment in a residential environment. The social assessment methodology includes resident social relations, management services, and the delivery of social services.

Center for Residential Security Design (1973) A Design Guide for Improving Residential Security. Prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, December 1973. Washington, D.C.: U.S.G.P.O.

This guide was written by Oscar Newman, and includes much of his "defensible space" theory. The bulk of the report provides a detailed overview of residential hardware, electronic security systems, and the use of security personnel.

Clifford, William (1976) Planning Crime Prevention.
Lexington, Massachusetts: Lexington Books, D.C.
Heath and Co.

Includes Australian examples of local crime prevention planning.

Cooper Marcus, Clare (1972) "Resident Dissatisfaction in Multifamily Housing". In William M. Smith (ed.) Behavior, Design, and Policy Aspects of Human Habitats. Green Bay: University of Wisconsin Press.

Concerns about crime and security are among the most important issues for residents in multifamily housing.

Cooper Marcus, Clare, and Wendy Sarkissian, with Donald Perlgut and Sheena Wilson (1981) Housing As If People Mattered: Illustrated Site Planning Guidelines for Medium Density Housing. London: Forthcoming from the Architectural Press.

Chapters cover a number of different user groups and user needs in the site design of housing developments. A "Security and Vandalism" chapter is included.

Curtis, Lynn A. and Imre R. Kohn (1980) Citizen Self-Help and Environmental Design: The Theory and Practice of Crime Prevention in American Subsidized Housing. Paper prepared for the Workshop on "Crime in Public Housing", Home Office Research Unit, London, England. Washington, D.C.: U.S. Department of Housing and Urban Development.

Reviews current American crime prevention and environmental design efforts.

Dillingham Corporation (1971) A Study of Crime Prevention Through Physical Planning. Prepared by the SUA Division. Los Angeles: Southern California Association of Governments.

The purpose of this report was to make crime prevention a part of the planning and design of proposed developments. The report proposes a program to achieve this and presents a handbook and training program.

Francescato, Guido, Sue Weidemann, James R. Anderson, and Richard Chenoweth (1979) Residents' Satisfaction in HUD-Assisted Housing: Design and Management Factors. Prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, by the University of Illinois, Housing Research and Development Program. Washington, D.C.: U.S.G.P.O.

This report is a broad investigation into satisfaction levels of residents in subsidized housing. It concludes that crime and vandalism, and the effectiveness of management rules and performance in this area, are important components of satisfaction.

Gardiner, Richard A. (1978) Design for Safe Neighborhoods: The Environmental Security Planning and Design Process. Prepared for the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration. Washington, D.C.: U.S.G.P.O.

This manual describes the concept of "environmental security", a comprehensive planning process for analysing and understanding neighbourhood crime problems. The manual emphasizes a preventive orientation to crime, utilising physically and socially "reinforcing" solutions.

Jacobs, Jane (1961) Death and Life of Great American Cities. New York: Random House. (Also published in 1965 by Penguin Books, Harmondsworth, England)

The early stirring classic about urban design and crime. Maintains that in designing new urban environments planners ignore the most basic structure of the city - the intricate and closely connected diversity of uses that constantly reinforce one another economically and socially.

Jeffery, C. Ray (ed.) (1976) Whole issue on "Criminal Behavior and the Physical Environment", American Behavioral Scientist, November/December 1976, Vol. 20, no. 2.

Three articles in this issue are most noteworthy: Jeffery's "Criminal Behavior and the Physical Environment: A Perspective", Dennis C. Duffala's "Convenience Stores, Armed Robbery, and Physical Environmental Features", and Thomas A. Repetto's "Crime Prevention Through Environmental Policy: A Critique".

Jeffery, C. Ray (1977) Crime Prevention Through Environmental Design. Second edition. Beverly Hills, California: Sage Publications.

This often-cited work deals with broad causes and cures for crime. One chapter deals with urban design, in which some reference is made to building design.

Jones, Ronald, David Kaminsky, and Michael Roanhouse (1979) Problems Affecting Low-Rent Public Housing Projects: A Field Study, January 1979. Office of Policy Development and Research, Division of Policy Studies. Washington, D.C.: U.S. Department of Housing and Urban Development.

The report shows that problems in "troubled" housing projects frequently occur in clusters, and that the problems tend to accentuate one another. Vandalism and lack of security are two of the most important difficulties experienced.

Kelley, Burnham (1974) Social Facilities for Large Scale Housing Developments. Ithaca, New York: Cornell University Center for Urban Development Research.

Discusses provision of social and community facilities in new residential areas.

Kohn, Imre R., Karen A. Franck, and Arlen Sue Fox (1975) Defensible Space Modifications in Row-House Communities. Research report to the National Science Foundation. New York: Institute for Community Design Analysis.

Liechenstein, Michael (1971) Designing for Security. New York: Rand Institute.

Luedtke and Associates, Gerald (1970) Crime and the Physical City: Neighborhood Design Techniques for Crime Prevention. A Pilot Study. Prepared for the National Institute of Law Enforcement and Criminal Justice. Detroit: Gerald Luedtke and Associates.

This report analysed 289 residential and non-residential premises which were the site of burglaries or robberies in Detroit during 1969-70.

Montgomery, Roger (1977) "High-Density, Low-Rise Housing and the Changes in the American Housing Economy". In Sam Davis (ed.) The Form of Housing. New York: Van Nostrand.

Makes an excellent point about the complex physical, social, economic, and managerial factors which went into the destruction of the Pruitt-Igoe housing project.

National Center for Housing Management (1976) The Housing Managers' Resource Book. Washington, D.C.: The Center.

Section Five on "Security" contains helpful "on-the-ground" crime prevention information for housing managers.

Newman, Oscar (1972) Defensible Space: Crime Prevention Through Urban Design. New York: MacMillan. (Also published in 1973 by the Architectural Press, London.)

The original publication of this book in 1972 changed the nature of the crime prevention and environmental design field. The book details and describes the "defensible space" theory, and includes extensive discussion of crime and the physical form of housing based on crime data analysis from New York City public housing.

Newman, Oscar (1976a) "No Place to Rest His Head". (16mm film.) Washington, D.C.; U.S. Department of Housing and Urban Development.

A 90-minute sound film which makes extensive use of animation techniques to provide technical assistance

on problems of design and security for single- and multi-family housing.

Newman, Oscar (1976b) Design Guidelines for Creating Defensible Space. Prepared for the National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration. Washington, D.C.: U.S.G.P.O.

This handbook examines how different social, physical, managerial, and economic factors combine to produce secure housing. Other chapters cover the evolution of multi-family housing, design guidelines for buildings, site planning guidelines, two prototypical designs, and discussions regarding security hardware.

Newman, Oscar (1980) Community of Interest. New York: Anchor/Doubleday.

This book extends Newman's concepts of crime prevention, proposing a formula involving both physical design and social mix to create cities which are made up of a series of small community enclaves. The book reports on a number of research projects including an evaluation of the privately owned streets in St. Louis.

Newman, Oscar and Karen A. Franck (1980) Factors Influencing Crime and Instability in Urban Housing Developments. Prepared for the National Institute of Justice, U.S. Department of Justice, August 1980. Washington, D.C.: U.S.G.P.O.

This study reports on which social, physical, and managerial characteristics of government-assisted urban housing developments are most important in causing crime, fear of crime, and instability. The causal model for the study is largely based on earlier defensible space theory and research.

Pablant, P., and J. C. Baxter (1975) "Environmental Correlates of School Vandalism", Journal of American Institute of Planners, 241, July 1975, pp. 270-279.

The authors examined rates of forcible entry into 32 schools in Houston, Texas, confirming the value of good street lighting and visibility to neighbours. They also showed that attractive schools were relatively free from break-ins.

Perlgut, Donald (1979) "Manageable Space: Proposals for Crime Prevention in Subsidized Housing". Paper presented at the third International Symposium on Victimology, Muenster, West Germany, September 1979. To be published in the Symposium Proceedings.

Introduces the concept of "manageable space", which emphasizes coordinated and comprehensive security planning for housing developments. Underlines the importance of housing management and physical design.

Rau, R. M. (1975) "Westinghouse Consortium - Crime Prevention Through Environmental Design", Proceedings of Policy Development Seminar on Architecture, Design, and Criminal Justice. Law Enforcement Assistance Administration. Washington, D.C.: U.S.G.P.O.

Describes three large scale crime prevention through environmental design "action projects": a commercial strip development (Portland, Oregon); a group of schools (Broward County, Florida); and a residential complex (Minneapolis).

Repetto, Thomas A. (1974) Residential Crime. Cambridge, Massachusetts: Ballinger.

Reports on research into residential crime patterns in metropolitan Boston. Excellent analysis and conclusions have helped make this book into one of the standards in the field.

Richardson, Don H. (1976) "Combatting Vandalism in the Schools", National Association of Secondary Schools Principals Bulletin, May 1976, pp. 60-65.

A representative article about vandalism by a professional educator. The author advocates developing clear, specific, and enforced rules for a school as the first step in combatting vandalism.

Rosenthal, Seymour J. (1975) "An Approach to Neighborhood Security", Ekistics, February 1975.

This article explains Rosenthal's concept of "turf control". He emphasizes the role of 'value consensus' and citizen action in reducing both crime and the fear of crime.

Rouse, W. Victor, and Herb Rubenstein (1978a) Crime in Public Housing: A Review of Major Issues and Selected Crime Reduction Strategies. Volume I: A Report. Prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, by the American Institutes for Research, December 1978. Washington, D.C.: U.S.G.P.O.

This review discusses a broad range of crime reduction approaches currently employed in an attempt to reduce crime and the fear of crime among public housing residents. Five current approaches are outlined in more detail, those of: Oscar Newman, Richard Gardiner, William Brill, Seymour Rosenthal, and the Westinghouse National Issues Center.

Rouse, W. Victor and Herb Rubenstein (1978b) Crime in Public Housing: A Review of Major Issues and Selected Crime Reduction Strategies. Volume II: A Review of Two Conferences and an Annotated Bibliography. Prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, by the American Institutes for Research, December 1978. Washington, D.C.: U.S.G.P.O.

This volume includes summaries of two conferences (held in September and October 1978) on reducing crime in and around public housing. This volume also contains an annotated bibliography of both published and unpublished literature.

Sagalyn, Arnold (1973) Residential Security. Prepared for the Law Enforcement Assistance Administration by the Security Planning Corporation. Washington, D.C.: U.S.G.P.O.

Scott, Alvin, Robert Fichter, and Scott King (1978) Managing Vandalism: A Guide to Reducing Damage in Parks and Recreation Facilities. Prepared for the Boston Parks and Recreation and Public Facilities Commissions. Boston: Parkman Center for Urban Affairs.

This guide was prepared for park and recreation facility managers. It stresses three components: understanding the vandalism problem, reviewing management tools available to deal with it, and devising a conscious strategy for putting those tools to work.

Sommer, Robert (1969) Personal Space: The Behavioral Basis of Design. Englewood Cliffs, New Jersey: Prentice-Hall.

The work of this environmental psychologist describes our personal "spacing" needs, both around ourselves and the physical territories we inhabit. This ground-breaking book served to add the term "personal space" to the vocabulary.

Sommer, Robert (1974) Tight Spaces: Hard Architecture and How to Humanize It. Englewood Cliffs, New Jersey: Prentice Hall.

This book examines a recent trend in the design and development of housing developments, commercial buildings, universities, and other buildings: the tendency to use a "hard" architecture modelled on prison design. Such an architecture is impermeable, inhuman, large-scale, and resistant to change. It is based on a fear of "vandalism" and human imprint. The author explores the reasons for this security mentality and presents a compelling argument on how and why to change the design of much of our public building.

Suttles, Gerald (1970) "Deviant Behavior as an Unanticipated Consequence of Public Housing". In David Glaser (ed.) Crime in the City. New York: Harper and Row.

U.S. Department of Housing and Urban Development (1974) Housing Management Handbook 7460.4: Security Planning for HUD-Assisted Multifamily Housing. Washington, D.C.: U.S. Department of Housing and Urban Development.

This handbook provides guidance to local housing authorities and to managing agents and owners of HUD-insured multifamily housing projects regarding planning for protection against crime and vandalism. Much of the material is from consultant reports by Oscar Newman, but there is other material as well. It is written in an easy "on-the-ground" style for ready use by housing managers.

U.S. Department of Housing and Urban Development (1976)
Defensible Space and Security: A Partially Annotated Bibliography. Prepared by the Library Division. Washington, D.C.: U.S. Department of Housing and Urban Development.

U.S. Department of Housing and Urban Development (1979)
Guidebook to the Urban Initiatives Anti-Crime Program. Washington, D.C.: U.S. Department of Housing and Urban Development and U.S. Department of Labor.

The purpose of this guidebook is to assist public housing agencies in preparing grant applications for the Anti-Crime Program by reviewing the kinds of proposals and concepts they might use. Seven "Program Areas" have been included:

1. Improved authority management of crime prevention.
2. Improvement of physical design and rehabilitation of facilities.
3. More and improved tenant organization against crime.
4. Increased full and part-time employment of tenants.
5. More and improved victim and witness services.
6. Increased use of better trained city police officers.
7. Stronger linkages with local government programs and other sources.

U.S. Department of Housing and Urban Development (1980)
Urban Initiatives Anti-Crime Program; First Annual Report to Congress. In response to the Public Housing Security Demonstration Act of 1978 and as part of the President's National Urban Policy. Washington, D.C.: U.S. Department of Housing and Urban Development.

This report describes crime and fear of crime in public housing and outlines the Program's accomplishments. The report includes the Program Guidebook, Program notices, lists of personnel and consultants, and other documents.

Wood, Elizabeth (1961) Housing Design, A Social Theory. New York: Citizens Housing and Planning Council. (Reprinted in part in Gwen Bell and Jaqueline Tyrwhitt (eds.), Human Identity in the Urban Environment. Harmondsworth, England; Penguin, 1972, pp.327-351.)

Contends housing project design minimizes or prevents accidental and casual communications and informal gathering. Local social control and better communal feelings arise from general feelings about a project.

Zeisel, John (1976) School Property Damage. Sponsored by the Public Facilities Department of the City of Boston. Cambridge; Zeisel Research.

This pioneer work focuses on the social dynamics of property damage as it relates to the design and administration of public schools.

IV SOURCES FROM THE UNITED KINGDOM

Baldwin, John (1974) "Problem Housing Estates - Perceptions of Tenants, City Officials and Criminologists", Social and Economic Administration, Vol. 8, no. 2, Summer 1974.

Results of interviews on Sheffield housing estates.

Baldwin, J., and A. E. Bottoms (1976) The Urban Criminal. London: Tavistock.

Banham, Reyner (1974) "Parkhill Revisited", Architecture Plus, May/June 1974, pp. 109-15.

Banham challenges the emphasis placed on design factors in crime by reference to the good record of the Parkhill estate in Sheffield which is very similar to the "indefensible" Pruitt-Igoe in St. Louis.

Bottoms, A. E. (1974) Review of Defensible Space by Oscar Newman, British Journal of Criminology, 14, pp. 203-6.

The reviewer underlines the shortcomings of the two types of statistical analysis used in Defensible Space.

Burbidge, Michael (1973) Vandalism: A Constructive Approach. Housing Development Paper 3/73. London: Department of the Environment.

Distinguishes several different kinds of vandalism and suggests steps to reduce their incidence.

Central Policy Review Staff (1978) Vandalism. London: H.M.S.O.

This short monograph attempts a national scale review of the available information about vandalism and the measures to deal with it. The Appendix includes "Some Success Stories."

Clarke, R. V. G. (ed.) (1978) Tackling Vandalism. Home Office Research Study No. 47. London: H.M.S.O.

Reports on three vandalism studies: on the extent and distribution of vandalism; on the prevalence of destructive behaviour among adolescent school boys; and on "defensible space" design on London housing estates.

Clarke, R. V. G. and P. Mayhew (eds.) (1980) Designing Out Crime. Home Office Research Unit. London: H.M.S.O.

A series of excellent articles on reducing crime and vandalism by improving design and management of the environment in order to reduce opportunities for offending.

This is a "situational" approach to crime prevention and includes discussions of lock technology, surveillance, siting, and publicity campaigns.

Cook, B. (1977) A Look at Vandalism in the U.S.A. Central Office of Information. London: H.M.S.O.

Gill, Owen (1977) Luke Street: Housing Policy, Conflict, and the Creation of the Delinquent Area. London: MacMillan.

The research on which this book was based started as an attempt to understand the lifestyle of a group of "delinquent" boys. The study became, however, a study of "urban management" and of the process of neighbourhood deterioration stemming from local authority housing management policy.

Hedges, Alan, Ann Blaber, and Barbara Mostyn (1980) Community Planning Project: Cunningham Road Improvement Scheme. Final Report. London: Social and Community Planning Research.

Detailed report of a scheme to cut down vandalism and crime on a run down and vandalised council housing estate.

Housing Development Directorate (1980a) Priority Estates Project: Upgrading Problem Council Estates. Prepared by Anne Power for the Social Research Division. London: Department of the Environment.

This pamphlet sets out the general issues which led to the establishment of the Priority Estates Project, explains how it operates, and summarises some of the lessons emerging from local authority initiatives throughout England.

Housing Development Directorate (1980b) Priority Estates Project: Upgrading Problem Council Estates. The first year: 1979-80 Progress reports. Prepared by the Social Research Division. London: Department of the Environment.

First year progress reports of the three consultants working on this project. Issues of vandalism and crime are among the most immediate problems.

Marshall, Tony (1976) "Vandalism: The Seeds of Destruction", New Society 17 June 1976, pp. 625-627.

Mawby, R. (1977) "Defensible Space: A Theoretical and Empirical Appraisal", Urban Studies, 14, pp. 169-79.

The author argues that by oversimplifying the nature of crime and the qualities of defensible space, Newman has failed to consider the possibilities for contradictions within the key elements of the theory that might also threaten security.

Mayhew, Pat (1979) "Defensible Space: The Current Status of a Crime Prevention Theory", The Howard Journal of Penology, Vol. 18, pp. 150-159.

A fine review of recent physical form and crime prevention literature in light of "defensible space", and an intelligent assessment of "defensible space's" popularity and usefulness.

Mayhew, Pat, R. Clarke, A. Sturman, and J. M. Hough (1976) Crime As Opportunity. Home Office Research Study No. 34. London: H.M.S.O.

Mayhew, P., R. V. G. Clarke, J. N. Burrows, J. M. Hough, and S. W. C. Winchester (1979) Crime in Public View. Home Office Research Study No. 49. London: H.M.S.O.

An excellent short monograph assessing the use of surveillance to reduce different types of crime. The authors argue that "casual" surveillance by the public is generally less effective than surveillance by residents and employees of an environment.

NACRO (1975a) Architecture, Planning, and Urban Crime. Proceedings of a day conference held on Friday 6 December 1974. London: War on Want.

The conference proceedings report on work in progress at the time and include contributions from Oscar Newman, Michael Burbidge, and others.

NACRO (1975b) Housing Management and the Prevention of Crime. Proceedings of a day conference held on Tuesday 4 March 1975. London: War on Want.

Papers include "Social Responsibility in Housing Management" (Harry Simpson), "Housing and Social Services" (Joe Young), and "Ownership and Control of Estates" (Colin Ward).

National Consumer Council (1979) Soonest Mended: A Review of the Repair, Maintenance, and Improvement of Council Housing. London: the Council.

Advocates rapid repair and maintenance in public housing as a means to reduce further problems of vandalism.

Perlmut, Donald (1980) "Public Housing and Crime Prevention in Australia", Paper presented at Crime in Public Housing Workshop, Home Office Research Unit, London, 15-16 September 1980. To be published in the Workshop Proceedings.

Outlines reasons for crime problems in Australian public housing and proposes some policy recommendations.

Prescott-Clarke, Patricia (1980) Priority Estates Project: 1979 Household Survey. London: Social and Community Planning Research.

Report of extensive surveys conducted on the two housing estates participating in the experimental Priority Estates Project.

Shankland Cox, with the Institute of Community Studies (1977) Housing Management and Design. Inner Area Study: Lambeth. Report by the Consultants. London: Department of the Environment.

Report examines a wide variety of data relating to 18 housing estates with the aim of identifying factors underlying the key problems and finding ways of dealing with them.

Sykes, Jane (ed.) (1979) Designing Against Vandalism. London: The Design Council.

One of the most recent and enlightened investigations into the causes, costs, and alleviation of vandalism. The book includes contributions on vandalism in housing estates, vandalism in schools, notes on playgrounds, feedback mechanisms in the design of new facilities, case studies, and a assessments of vandal-resistant equipment.

Ward, Colin (ed.) (1973) Vandalism. London: Architectural Press.

This book is intended for "all those who earn a living by modifying and maintaining the environment". The book is more than just a design guide for architects, planners, managers, and engineers; its collected articles constitute one of the best surveys of the physical, social, criminological, and political aspects of vandalism. Contributions are organised in four parts: "the social background", "the designer's responsibility", "vandals with power", and "coping with vandalism".

Wilson, Sheena (1977) "Vandalism and Design", Architect's Journal, 26, October 1977, pp. 795-798.

The author suggests a combined approach to vandalism prevention, including maintenance, territoriality, and buffer zones, and paying attention to child density. Advocates the integration of management and design strategies.

Wilson, Sheena (1978) "Vandalism and 'Defensible Space' on London Housing Estates", in R. V. G. Clarke (ed.) Tackling Vandalism. Home Office Research Study No. 47. London: H.M.S.O. (Reprinted in Designing Out Crime, Clarke and Mayhew (eds.), Home Office Research Unit. London: H.M.S.O.)

This study 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 Newman's "defensible space" ideas and also show the relevance for vandalism of the densities at which children are accommodated on estates.

Wilson, Sheena, and Michael Burbidge (1978) "An Investigation of Difficult to Let Housing", Housing Review, July/August 1978, pp. 100-104.

Reports on the Department of the Environment's "Difficult to Let" research, main results of which are to be published in 1981.

APPENDIX A: SELECTED ADDRESSES

Australia

Australian Institute of Criminology
P.O. Box 28
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Australian Crime Prevention Council
National Secretariat
P.O. Box 147
Broadbeach, Queensland 4217

U.S.A.

U.S. Department of Housing and Urban Development
Washington, D.C. 20410

- a) Office of Policy Development and Research
- b) Urban Initiatives Anti-Crime Program
- c) Office of Housing

Law Enforcement Assistance Administration
U.S. Department of Justice
Washington, D.C. 20531

United Kingdom

Housing Development Directorate
Department of the Environment
2 Marsham Street
London SW1P 3EB

Home Office Research Unit
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Waterloo Road
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