

Strategic planning and design of urban developments and housing

Virginia Jackson

ABSTRACT

To date town planners have had only a marginal interest in urban pet management. On the whole it has been seen as a by-laws issue except in a very few areas where pet ownership has been prohibited or restricted as a condition of planning permit or as a basic restriction on the zone. However town planners can have a role to play through the implementation of appropriate urban design principles. Some principles most appropriate to pets have been identified and developed in a recently released document 'Pets in Urban Areas : A Guide to Integrating Domestic Pets into New Residential Development'. The guidelines are part of a growing movement to improve many aspects of residential planning in response to the nationwide push to promote urban consolidation.

It is hoped that the guidelines will encourage everyone to think about pets in decisions about residential and community development. This includes home owners, architects and developers as well as councils and other authorities who approve housing and subdivision plans, develop housing policies and who are interested in ensuring that there is diversity in the nation's housing stock.

INTRODUCTION AND BACKGROUND TO THE STUDY

This paper summarises the results of a study of the potential of urban design to contribute to improved urban pet management. The impetus for the study arose from concerns that the nationwide push for urban consolidation may be prejudicing the ability of people to own pets - smaller homes and back yards and multi dwelling developments may discourage people from owning pets - while placing greater demands on scarce public open space. Compact living arrangements can also compound urban pet management issues.

The study was undertaken in 1992 by Harlock Jackson Pty Ltd, Planning and Development Consultants in association with Goad Fink, Architecture and Landscape and Dr Robert Holmes, Animal Behaviourist.

Its aims were

1. To identify those elements of urban design which affect domestic pet ownership; and
2. To develop guidelines which focus on better integrating pets into new residential development.

The study was restricted to consideration of domestic pets. The final document is entitled 'Pets in Urban Areas : A Guide to Integrating Domestic Pets into New Residential Development' (hereinafter referred to as 'the Guidelines') and was released in January, 1993.

Many of the recommendations are not new but are either not well understood or have never been applied in an urban planning context before. Opportunities are often lost because pets are not considered at the design stage of development. Hence the guidelines have been written for those associated with the development industry : developers, town planners, architects, landscape architects and surveyors working in both government and the private sector.

The first part of this paper sets out the framework within which the relationship between urban design and urban pet management can be viewed. The second part presents the main aspects of the Guidelines.

WHAT EXACTLY IS TOWN PLANNING?

Not everyone is fully familiar with the work of town planners so an explanation is warranted. Briefly the field is about controlling the use and development of land. In urban areas this includes converting rural land to urban uses and controlling redevelopment in existing built up areas. It occurs on a variety of scales ranging from decisions about a whole state or city through to municipalities, streets and individual properties. The substantive issues are many and varied and include consideration of the built environment, housing needs, industry needs, . mobility , conservation, economic development, planning for minority groups and so on. Much of the emphasis is on preventing undesirable impacts but a lot of work is done to pursue positive objectives such as stimulating economic growth.

The basic tools of the town planner are (1) strategic planning and (2) statutory planning. Strategic planning involves formulation of policies or strategies to achieve goals relating to particular land uses or areas. Statutory planning provides the regulatory framework for implementing those goals (for example, the town planning permit is one part of the regulatory framework).

A key strategy pursued by all governments in Australia is urban consolidation. In essence the concept is about achieving a greater proportion of future urban growth within established areas through higher housing densities (flats and units), restricting housing loss to other uses and redeveloping redundant industrial sites for housing purposes. A recent initiative being pushed as an alternative to the traditional quarter acre block is the small lot subdivision (as defined in a subsequent section).

Urban consolidation has been implemented in the belief that the outward growth of major Australian cities in the post war period has led to undesirable impacts including :

- Under-utilisation of infrastructure, that is, roads, public transport, sewerage, schools, hospitals, health centres and the like;
- Lags between development of new suburbs and provision of infrastructure;
- Increasing distances to work and other urban services;
- Inability of the public transport network to cope with sparsely developed areas;
- Increasing dependence on the private car and associated environmental and social effects; and
- Housing that fails to meet the changing needs of the population.

In addition:

- The decline in housing affordability means that cheaper housing options need to be considered;
- Escalating funding constraints mean that it will be even more difficult to service new suburbs in the future; and
- Changing community attitudes about the environment have led to concerns about the loss of sensitive environmental areas and productive farming land to urban development.

New housing policies and codes have been designed to encourage urban consolidation and the impact is starting to be felt with innovative development occurring in all major Australian cities. I believe the pace of change will accelerate over the next few years as Australians come to embrace these new types of housing.

The effects on pet ownership cannot be measured but it is clear that in this climate, there will be many pet owners who may be discouraged from owning a pet. Those that do persist may face tougher restrictions either from their local councillor resident management committee.

WHAT IS A SUCCESSFUL PET?

This brings us to the question of what is a successful pet. A town planner's definition would be that a pet which meets the owner's needs and expectations and integrates well into the family and surrounding neighbourhood.

This definition introduces three variables: the pet, the owner and the environment. While it is wrong to assume a certain pet, owner or environment will cause certain behaviours, each will have the capacity to increase or decrease certain types of behaviour. *However the relationship between these variables is complex, dynamic and constantly changing; considering one variable in isolation cannot be the answer to successful pet ownership.*

A lot of work has of course been done on the first two variables. For example we now know much more about the characteristics of different pets and breeds. We are also making progress on responsible pet ownership generally following extensive education programs run by all groups interested in better urban animal management. However while many of us know intuitively about the role of the pet's environment there has been a dearth of formal work documenting the effects. The Guidelines seek to fill that gap. In this forum, it is not necessary to address the first two variables so the rest of this paper concentrates on the pet's environment.

ROLE OF THE ENVIRONMENT

The pet's physical environment includes both the owner's premises and the wider neighbourhood. (There is also the non-physical environment to consider such as activity occurring in adjacent and neighbouring properties. The study looked at the non-physical environment only insofar as it is affected by the physical environment.)

The Owner's Premises

Those aspects of the home environment that affect pets include:

- Housing type;
- Housing and precinct design;
- Private open space and landscaping;
- Fences;
- Restraint of cats;
- Windows;
- Garages, car ports and car spaces;
- Internal light courts;
- Dog and cat doors;
- Disposal of excrement; and
- Other design features such as internal flooring and bedding.

Housing type is probably the most fundamental of these aspects. We should note however that most people place too much emphasis on housing type as a factor in successful pet ownership. It is worthwhile at this point outlining the definitions of housing type used in this study.

- *High Density:* Includes flats and apartments. Dwellings are usually accessed by a lift or communal staircase and are not provided with private open space except possibly a balcony.
- *Multi-dwelling development:* Includes villa units, town houses, dual occupancy (i.e. 2 houses on 1 lot), and subdivided houses. It is characterised by separate entrances at ground level and small private gardens or courtyards.
- *Small lot subdivision:* Lots for detached houses usually ranging from 300 to 600sqm. The planning stage can involve either a single site or a future residential community i.e. a whole subdivision. As mentioned above this type of housing is being pushed as an alternative to the 'quarter acre block'.
- *Low Density housing:* Conventional detached housing on lots of (epitomised by the 3 bedroom house on the 'quarter acre block').
- *Rural Residential:* Urban fringe development with lots in the range of 2 to 4 hectares each. It is a popular 'life-style' choice of housing for families seeking the benefits of rural living.

The Wider Neighbourhood

While the home is where pets spend the greater part of their lives, it is visits outside the home that provide the greatest variation, stimulation and unpredictability .

Dogs may be quieter at home if they are taken out regularly particularly when they live in compact surroundings or spend long periods on their own. Some breeds need more exercise than others.

In urban areas, walking in the street and visits to public parks are the main sources of exercise for dogs. The opportunities sought may range from a small park very close to home to a larger park further a field and used less frequently.

It is important to remember that owners also need to be able to take their dog with them on their own recreational outings, for example, on a picnic. This needs to be distinguished from the need for dogs to be exercised.

The opportunities available depend on the number of parks available and accessibility to those parks. Accessibility encompasses physical access, that is, the ease with which one can reach the park and access restrictions through by-laws etc. The latter has been the subject of considerable debate throughout Australia in recent years with dogs being banned from some parks. It is considered that properly leashed and controlled dogs do not pose a threat to people or wildlife and should be permitted in all urban parks.

GUIDELINES FOR INTEGRATING PETS INTO NEW RESIDENTIAL DEVELOPMENT

The guidelines following develop the general principles outlined above in greater detail.

Housing Type

It might be tempting to prescribe different pets for different types of housing. Some people already have firm views about pets and housing type mostly in relation to dogs (for example, that the only environment for a dog is in conventional detached housing or that a 'big' dog is only suitable in the country). However suitability is as much dependent on the quality of space as it is on the quantity. It also depends on management of the pet, access to public open space and *correct* breed choice (not just 'big' or 'small' or some other equally vague or inaccurate classification). These are critical distinctions that need to be made.

That is not to say that dogs are appropriate in flats everywhere. In most cases they are better kept in a dwelling that has some private open space. However there are no clear standards. Some breeds of dog cope well with living in flats.

In some circumstances there may be scope for creative solutions to keeping dogs (and cats) in high density developments. One possibility is the communal pet. There has been very little research on this concept but further examination is warranted. The communal pet could produce indirect social benefits by promoting interaction and cohesion amongst residents.

Investigation of this concept however should not be at the expense of the right of individual people to own pets.

The most definite prescription that can be made about housing type and pets is that *as housing density increases so too does the need to pay attention to breed choice, specific design feature, management, training and environmental enrichment.*

Housing and Precinct Design

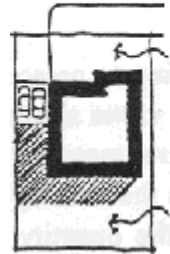
A dwelling that overlooks areas of activity is ideal for pets because it increases the amount of stimulation that can be received from the property , for example, dwellings that overlook a park or are adjacent to a busy street. This is one way to alleviate boredom (as explained below) and the adverse behaviours that sometimes result.

Semi detached housing is better than housing that is attached on both sides because it gives pets more freedom to move about within the property , although pet doors would allow free movement between the back and front.

Private Open Space and Landscaping

Preferably a dog should have access to some outdoor space. Open space is not essential for a cat providing an enriching environment is maintained indoors, for example, a bay window or internal fernery. The following principles should be considered in designing open space for dogs:

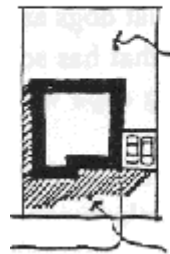
- Ideally dogs should have access to all areas of open space on a property. Large areas of unfenced open space are not accessible to dogs. Consideration should also be given to maximising solar access;



SUNNY FRONT NORTH FACING GARDEN

SHADY REAR SOUTH FACING GARDEN

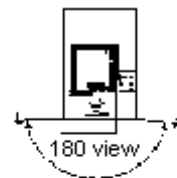
- On the whole a dog's behaviour is likely to be better if he or she can see the street. Restraining a dog to a service yard with no view for long periods increases the chance of boredom which may result in undesirable behaviour such as excessive barking. Although the dog may bark at passers-by in the street, there will be less likelihood of excessive barking that might arise through boredom. It is this type of barking that seems to cause the most unrest between neighbours. Providing a dog with surveillance of the street also enhances public security;



SUNNY REAR NORTH FACING GARDEN

SHADY FRONT SOUTH FACING GARDEN

- The closer dogs are able to get to the view, the better that view will be (that is, a 180 degree view rather than one of 30 to 90 degrees);
- Zero lot lines (siting dwellings on the boundary) are effective since they provide scope for acoustic separation between dwellings;
- In medium and high density developments, consideration should be given to providing a fenced area of communal open space in which owners can relax with their pets.



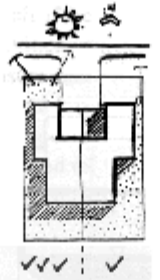
Restricted view

Examples of housing descriptions

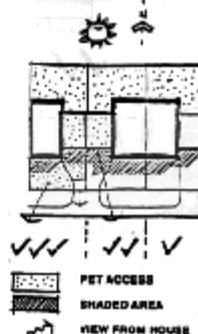
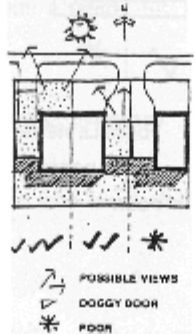
Semi-detached car ports in front



Semi-detached car ports central



Semi-detached car ports to side

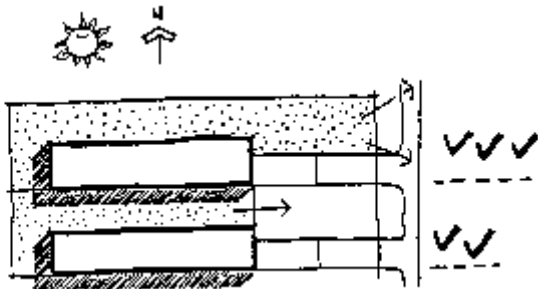


✓✓✓ PREFERRED
 ✓✓ VERY GOOD
 ✓ GOOD

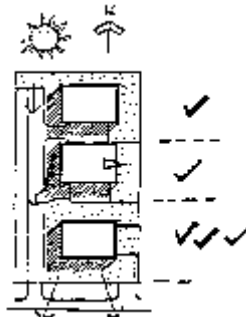
↗ POSSIBLE VIEWS
 ↘ DOGGY DOOR
 * POOR

▨ PET ACCESS
 ▨ SHADED AREA
 ↗ VIEW FROM HOUSE

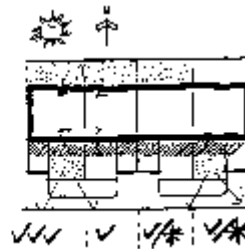
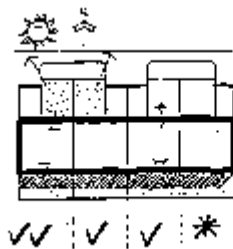
Zero-lot line



Villa units



Attached row housing



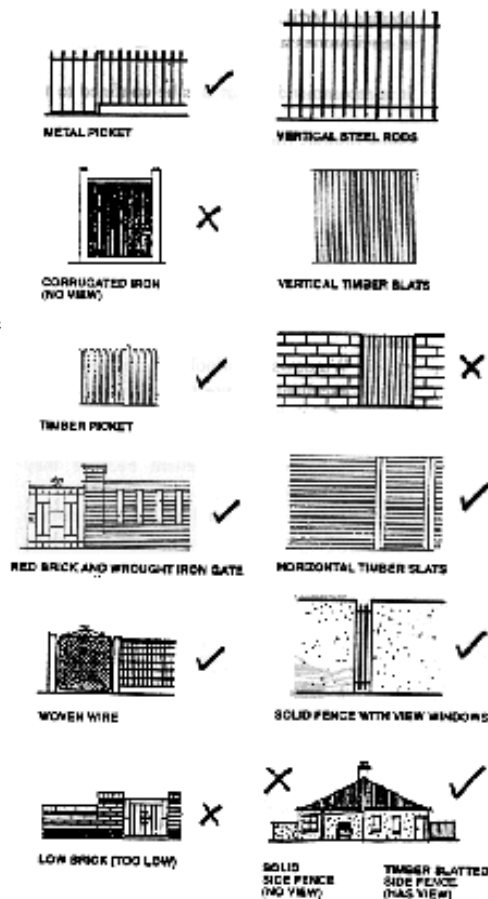
Fences

With adequate fencing, a dog will be confined to the property. Cats are less easily contained and are discussed in a following section.

The standard paling fence will restrain almost all dogs. They are recommended for side and rear boundaries. The Petcare Information and Advisory service (PIAS) considers the most appropriate minimum height for front fences is 1.2m. It can provide restraint for most dogs while still providing adequate surveillance of the street by humans.

If a particular dog is not confined by this fence height, he or she should be kept behind a higher fence set further on the property (say between the side fence and the house).

Solid front fences limit the view of the outside world and are not recommended for new development. The dog will tend to be less roused by sound stimuli if he or she can see passers-by or activities in the street. It is important to ensure that a dog cannot get through the fence.



If necessary, chicken wire or 100mm square broad weave wire fencing can be fixed to the inside of a fence without detracting from the streetscape. All gates should be fitted with a return spring self closing device. In some areas front fences are not permitted. These policies are prejudicial to the ability of people to own dogs. They also disadvantage people with small children.

Restraint of cats

Cats are not as easily restrained as dogs. They are more agile and have quite different notions of territoriality. Mostly this does not create a problem although difficulties may arise in environmentally sensitive areas where cats may prey on wildlife.

It is recommended that cats be confined to the house at night for their own protection.

Other options for protection of wildlife include use of cat bells and cat proof fences around the perimeter of properties although there has been no evaluation of these options.

Windows

Well designed and located windows are also important. They improve a pet's quality of life and help to reduce boredom for pets kept inside.

- Windows overlooking the street are excellent because they provide a range of activity to be observed.
- Bay windows and upper storey windows are excellent because they increase the range of surveillance.

First Floor Windows to floor level preferred



Bay window for increased radius of view

- Floor length windows provide both a view and a warm spot in which to lie particularly for dogs which do not usually lie on window sills.



Perforated garage/car port door preferred



Perforated fence good but use could be made of the open car port i.e. added shelter and shade

Garages, carports and car spaces

Garages, car ports and car spaces are better if they are accessible by pets because of the extra space and shelter they provide. For this reason it is better for car parking to be provided within the fenced part of the property. In multi-dwelling developments it is also better for car parking to be sited alongside the dwelling rather than located in a separate car parking area.

Internal light courts

These are ideal for pets especially for those kept inside during the day and those kept in flats and units. They are recommended for all dwellings in multi-dwelling and high density developments.

Disposal of excrement

Garden beds are handy for turning over pet's faeces and should be incorporated in multi-dwelling units where possible. In high density and multi-dwelling developments, consideration could also be given to installation of a communal disposal unit for pet faeces. (These facilities are becoming more common in public places such as parks.) The officially approved method for disposal of dog and cat faeces needs to be clarified for each state.

Public open space

Access to a park close to home is vital to ensure people exercise their pets. Availability of a park further away is not useful on a daily basis if it is necessary for the pet owner to drive to it. The PIAS believes that a properly leashed and controlled dog is no threat to any person or animal and should be allowed into all urban parks. Education and pressure by others about owners' responsibilities are the key to ensuring dogs remain leashed in public parks. Prohibition disadvantages pet owners.

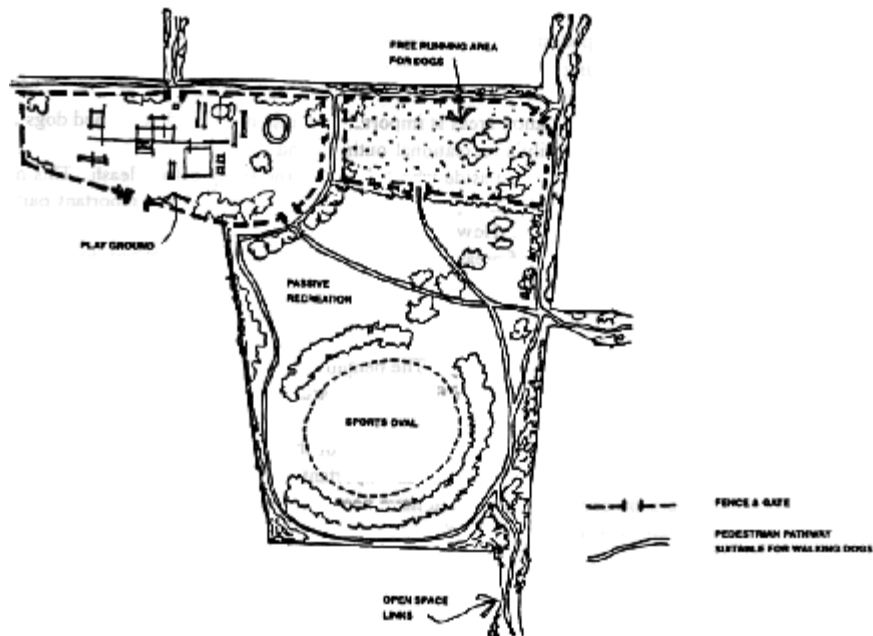
In some areas, councils can vary restrictions by month of the year or time of the day depending on peaks in demand. For example, in parks people could be allowed to exercise their dogs off the leash before 10am and after 6pm. There are usually fewer demands on parks in these hours.

In developing new parks there is more scope to cater for the needs of all park users at the planning stage. There are several principles that should be considered in accommodating the needs of dog owners in public open space planning:

- Linear parks and pedestrian paths provide links between community facilities. They are ideal for walking dogs providing interest and diversity for the dog and a sense of purpose for the owner;
- Access to passive recreation areas is important because it means that leashed dogs can be included in the family's recreational outings; and
- Ideally an area should be set aside where dogs can run freely off the leash. This may pacify some dogs. Free running exercise outside the home is an important part of environmental enrichment. However the PIAS believes that these areas should not be provided at the expense of areas where people are able to take leashed dogs.

The two illustrations following show the ideal concept. They show a network of local parks and open space links connecting with a neighbourhood park. The local parks would be available for frequent use by leashed dogs. The neighbourhood park shows paths for walking leashed dogs connecting to a fenced off free running area for dogs.

Education of the dog's owner in the need to dispose of their dog's faeces in parks or ensure that they defecate in appropriate places is an important part of promoting responsible pet ownership. There are several methods that have been tried both here and overseas including use of 'pooper scoopers' and 'doggy loos'.



Local Government can assist in a number of ways including installation of signs in parks reminding owners of their responsibilities. Many councils now also supply such things as free 'pooper scoopers' in parks to assist dog owners.

WHAT NEXT?

As stated previously residential planning principles have developed at an accelerated pace over the past 10 years with guidelines being prepared for a variety of considerations that were previously taken for granted or ignored altogether. Planners and architects now have more assistance available to them than ever before and are using these resources with zest.

Where pets and planning is concerned, the difficulty has been getting participants to take the matter seriously. Pets are seen as part of normal residential development; they don't warrant special consideration. Planners have not been aware of the extent of the urban pet management debate and the now recognised benefits of pets for households other than the traditional nuclear family in a conventional suburban home. The Guidelines set show clearly why pets do require special consideration. The Guidelines are on the whole consistent with other residential planning principles.

The Guidelines have been distributed to every municipal council in Australia as well as to relevant state government departments, developers and consultants. In addition, articles are being prepared for the journals of the Housing Industry Association, the Royal Australian Planning Institute, the state Municipal Associations and so on. Copies are also to be given to the libraries of the planning and architecture schools at tertiary institutions all over Australia.

In November 1992 the preliminary findings of the study were presented to an independent panel convened to consider the new Victorian Code for Residential Development. The Guidelines were well received by the panel and are to be included in the list of fewer than 20 references to that Code.

It is the private sector that needs to take these principles on board, either by recognising the commercial advantage of accommodating pet owners' needs or by encouragement from government town planners. I am confident that with increased awareness the relevant principles will come to be integrated into designs for new residential development.

CONCLUSION

The pleasures and benefits of pet ownership should be available to everyone. However owning a pet brings with it responsibilities for which we are increasingly being held accountable. Urban design does play a role in urban pet management. It is not the only factor to take into account and it certainly does not absolve the owner from his or her responsibilities. However there is considerable scope to improve our relationship with pets through application of the principles outlined in this paper.

REFERENCES

- Beck, A.M. 1983. 'Animals in the city' in A.H. Katcher and A.M. Beck (eds), *New Perspectives on Our Lives with Companion Animals*, University of Pennsylvania Press, Pennsylvania.
- Context Pty. Ltd. & Royal Melbourne Institute of Technology 1990. *Approaches to Pet Management for Local Government*, Petcare Information and Advisory Service, Melbourne, Victoria.
- Craig, J.V. 1981. *Domestic Animal Behaviour: causes and implications for animal care and management*, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- Department of Industry, Technology and Commerce 1990. *Australian Model Code for Residential Development, Edition 2*, Department of Industry, Technology and Commerce, Australian Government Printer, Canberra.
- Department of Planning and Housing 1992. *Victorian Code for Residential Development (Subdivision and Single Dwellings)*, Department of Planning and Housing, Melbourne, Victoria.
- Department of Planning and Housing 1992. *Draft Victorian Code for Residential Development (Multi Dwellings)*, State Government of Victoria, Melbourne, Victoria.
- Edney, A.T.B. and Hughes, I.B. 1986. *Pet Care : a straightforward guide to keeping pet animals*, Blackwell Scientific Publications, Oxford.
- Fox, M.W. 1972. *Understanding Your Dog*, Longmans Canada Limited, Toronto.
- Harlock Jackson Pty. Ltd. (1991) *Urban Planning and Pets in Melbourne*, Petcare Information & Advisory Service, Melbourne, Victoria.
- Hart, B.L. 1985
The Behaviour of Domestic Animals, W.H. Freeman and Company, New York.
- Hart, B.L. and Hart, L.A. (1985) *Canine and Feline Behavioral Therapy*, Lea and Febiger, Philadelphia.

- Holmes, R.J. 1992. Victoria. *Causes and Control of Barking*, Pamphlet, Dr Robert Holmes, Melbourne, Victoria
- Holmes, R.J. 1991a. *Enriching the House Environment for Cats*, Pamphlet, Dr Robert Holmes, Melbourne, Victoria.
- Holmes, R. J. 1991b. *Environmental Enrichment for Dogs*, Pamphlet, Dr Robert Holmes, Melbourne, Victoria.
- Houpt, K.A. and Wolski, T .R. 1982. *Domestic Animal Behaviour for Veterinarians and Animal Scientists*, The Iowa State University Press.
- MacCallum Research Pty Ltd in association with Hugh MacKay 1992. *What Australians Feel A bout Their Pets: a study of our attitudes to cat and dog ownership*, Petcare Information and Advisory Service, Melbourne.
- Morgan Research 1991. *Dog and Cat Population Data*, Unpublished Report.
- Petcare 1988. *Submission to the Inquiry into the Role and We/fare of Companion Animals in Society*, Social Development Committee, Melbourne, Victoria.
- Petcare 1976. *Pets as a Social Phenomena: a study of man-pet interactions in urban communities*, Petcare Information & Advisory Service, Melbourne, Victoria.
- Royal Guide Dogs Association of Australia 1987. *Submission to the Inquiry into the Role and Welfare of Companion Animals in Society*, Social Development Committee, Melbourne, Victoria.
- Salmon, P.W. and Salmon, I.M. 1983. 'Who owns who? : psychological research into the human-pet bond in Australia' in A.H. Katcher and A.M. Beck (eds), *New Perspectives on Our Lives with Companion Animals*, University of Pennsylvania Press, Pennsylvania.
- Social Development Committee 1989. *Inquiry into the Role and Welfare of Companion Animals in Society*, Jean Gordon Government Printer, Melbourne, Victoria.
- Urban Land Authority 1991. *ULA Residential Planning Policy*, Urban Land Authority, Melbourne, Victoria.
- Urban Land Authority 1991. *Smart Block Designs*, Urban Land Authority, Melbourne, Victoria.

ABOUT THE AUTHOR

Virginia Jackson BTrp (Hons) MRAPI
Harlock Jackson Pty Ltd
Planning and Development Consultants
19 Victoria Grove
HAWTHORN EAST VIC 3123
Ph (03) 882 6065
Fax (03) 882 8145

I am a Town Planner with experience working in State and Local Government and for the last 6 years as a consultant to private individuals and companies, community groups and the government. In 1991 my firm completed a review of town planning policies and regulations in Victoria for their impact on pet ownership. We identified the push for urban consolidation as a policy of considerable potential impact. These findings led to the preparation in 1993 of national guidelines for integrating pets into new residential development.