

The Pedestrian Behaviour of Residents in Gated Communities

Matthew Burke

Abstract

Gated Communities have spread throughout much of North America and the Developing World and are now proliferating in parts of Australia. These 'fortress' suburban estates, fenced off from the outside world, present an interesting problem for pedestrian planners. Given that over eight million Americans alone are now thought to live in such estates, determining whether 'gating' by and of itself alters pedestrian behaviour is an important research task.

The paper discusses some of the preliminary hypotheses and research findings of a study into the travel behaviour of residents in comparable gated and non-gated communities, being conducted by the author in SouthEast Queensland. From the preliminary data it appears that the observed and recorded pedestrian behaviour of residents, whether static or dynamic, is affected both 'within the walls' and when travelling outside their estate due to the fortification of their estates. But there is a range of contradictory forces at work that will require further investigation to increase our knowledge of just how this urban form is affecting urban life.

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Introduction

There has been a considered effort in the last twenty years on behalf of transportation and land use researchers to understand the relationship between urban form and travel behaviour. A large portion of this effort has been aimed at determining the ways in which subdivision design, street patterns and the mixed-use of land uses affects travel patterns, especially in terms of the share of all trips undertaken by each mode, journey lengths, travel times and the like. In this same time period, there has been an explosion in parts of the United States and many developing nations of a new form of neighbourhood development commonly referred to as 'gated communities'. Also called 'fortress estates' and 'gated enclaves', these communities represent an increasingly prominent element in the [post]modern suburban landscape. And while according to qualified observers over eight million US residents are thought to live within the walls of a gated community (Blakely, 1997c), there have been very few studies yet completed into their impacts on urban life, and not one study I am aware of has yet tried to determine their full impact on travel behaviour.

This paper first attempts to define just what is meant by the term 'gated community', notes their geographical concentration in the US and Australia, and then seeks to categorise the various types that are present. It summarises preliminary hypotheses and research findings from a study being conducted by the author into the issue of travel behaviour in these communities, focusing on the impact that the installation of gates may have on a community's pedestrian travel patterns. Using a number of SouthEast Queensland, Sydney and Melbourne examples, their likely impacts on pedestrian behaviour are hypothesised, with some preliminary research findings being used to suggest just what impact the gates do have.

Gated Communities – What are they, where are they, and what types exist?

Definitions

The seminal study into gated communities in the United States was that undertaken by Blakely and Snyder and published in the book *Fortress America: gated communities in the United States*. They define gated communities as

"... residential areas with restricted access in which normally public spaces are privatized. They are security developments with designated perimeters, usually walls or fences, and controlled entrances that are intended to prevent penetration by nonresidents. They include new developments and older areas retrofitted with gates and fences, and they are found from the inner cities to the exurbs and from the richest neighbourhoods to the poorest" (Blakely, 1997a, p2).

Calvalho, George and Anthony, describe gated communities as "Large and small neighbourhoods ..." that choose "... to surround themselves with walls or fences and

use security gates to control access” (Carvalho, 1997). Urban critic Mike Davis called them “walled off communities”, where developers “have decided to enclose the entire community in security fencing” (Davis, 1998, p246-47). . While Helsley and Strange, in a modelling study of crime and gated communities labelled them as ‘... walled residential developments that attempt to provide safe environments by denying access to the general public” (Helsley, 1998, p81).

Extending these definitions, the salient features of gated communities are, firstly, that they are residential estates, rarely featuring much in the way of either commercial or retail functions. Secondly, they are clearly separated from the surrounding community by a barrier to human movement, usually in the form of a wall or fence, though moats are not unheard of. And the entry and exit of residents and visitors alike, whether on foot or by vehicle, is only made possible through security-controlled access-points, usually a gatehouse, with numerous electronic and surveillance devices used to ensure those without invitation are not allowed to enter. Thirdly, they are private entities, with private streets, private parks and private facilities. Management of these assets is usually undertaken either directly by the developer, or, more commonly, through a homeowner or community association.

The Spread of Gated Communities

While most commonly identified as a US phenomena, gated communities now circle the globe and today have a significant presence in countries as diverse as China, Indonesia, Brazil, and the UK.

In Australia, gated communities are congregated around SouthEast Queensland, in Greater Sydney and there are growing concentrations in northern New South Wales, Melbourne and Perth, as shown in Fig. 1. Fewer people live in gated communities in this country – perhaps less than forty thousand at present – but the population contained within them is spatially concentrated and their numbers are growing exponentially.

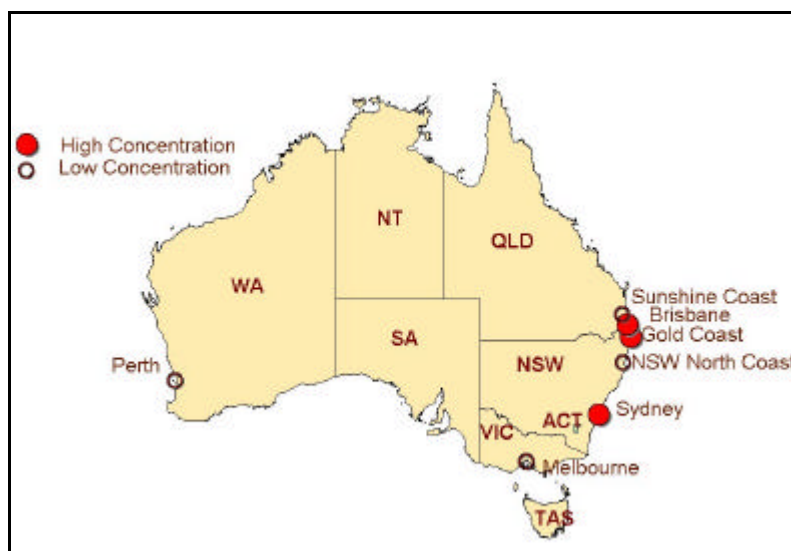


Figure 1. Concentrations of Gated Communities in Australia

The Different Types of Gated Communities

Not all gated communities are the same and their differences have significant implications for issues like travel behaviour. While other authors have put forth viable typologies (Blakely, 1997a, pp38-39; Luymes, 1997, p198), I choose to define five types of gated community that are present in the US, British and Australian context. This schema is based on the physical and social characteristics of the differing communities, as well as their geographic location. The categorisation is as follows:

The first types are *Urban Security Zones*. These are existing communities where efforts have been made towards gating out social problems from laneways and small neighbourhood areas in what are generally urban, as opposed to suburban, areas. They comprise a retrofitting of gates into an existing urban setting to remove unwanted pedestrian, or more commonly, vehicular traffic.

The second types are what I term *Secure Apartment Complexes*. By this I mean the variety of gated communities that feature a majority of housing stock in the form of units or apartments, often of three or more storeys in height. There are usually no private open space areas for the dwellings, with outdoor areas and facilities open to all residents. The entire complex is generally gated, with no vehicular access for non-residents and restrictions on pedestrian entry.

The third group, comprising those forms most commonly understood as gated communities, are *Secure Suburban Estates*. The term 'suburban' is used to signify that the majority of these developments are to be found in either in-fill or greenfields developments in the middle or outer suburbs or major cities. Characterised by a housing form that is predominantly one of low-rise villas or townhouses, the housing stock is generally developed using common building materials, designs and layouts. Lifestyle features are absent, other than perhaps in the form of a small communal pool or gymnasium, and Secure Suburban Estates tend to be smaller in the number of constituent dwellings than either Secure Resort Communities or Secure Apartment Complexes [usually 20-80 dwellings in the Australian context].

Secure Resort Communities are the fourth type. These communities include within their walls one or more lifestyle features, such as a lake, lagoon or golf course, they are larger in scale than Secure Suburban Estates, and they contain a variety of elements that are indicative of 'resort-styled living' such as gardens, pathways, and elaborate lighting. At the upper [class] end are developments such as Sanctuary Cove on the Gold Coast, though a range of more moderate communities are also included in this category.

The final group I have labelled *Secure Rural-residential Estates*. Essentially, these are ex-urban estates, located most often at the edge of the rural-urban fringe of major centres, which incorporate a gated entrance and other security features, within a rural-residential subdivision. Lots are often a minimum of one acre in size, a code covers design of the housing stock and garden areas to ensure a 'rural idyll' is maintained, and large areas of the estate are retained as pastoral landscape. No explicit lifestyle feature other than the rural landscape [grazing land, vineyards, etc] is included and the development does not include the range of features that are indicative of resort-styled living.

What do we not already know about gated communities?

The brouhaha about the anti-social and somewhat fascist influences of this form of urban design has been well described and documented by both journalists and urban professionals in the US (ie. Dillon, 1994; Grunwald, 1997; Owens, 1994; Scher Zagier, 1998) and in Australia (ie. Gibson, 2000; Hansen, 1998; Hickman, 1997; Hills, 1998; Saxby, 1998).

I do not wish to say much about this debate here other than to state that there is much that is unsavoury about the rise of gated enclaves in the Australian context. The prophetic words of Mike Davis, who sees the fortification syndrome as relating to the 'decline of urban liberalism', the throwing away of the reformist vision of public space as social safety valve, or as even the 'bedrock' of the modern *polis* – may well be true (Davis, 1998, pp226-227).

But in terms of investigative academic research into gated communities there is a dearth of high-quality analysis and assessment. Very few of their attributes are well researched. The research gap I have concentrated on is our lack of understandings of the impacts of gating on travel behaviour, including the vexed question of pedestrian behaviour. There has been the odd study that has compared the modal splits or other variables of broader geographic areas that contain gated communities, such as a study by K. Shriver (Shriver, 1997). And there has been considerable research into the impacts of other physical variables also known to affect travel behaviour with a considerable body of work now available on the relationships between land use mix, density, intensity and travel (Hess, 1999, p9). But there are as yet no published research efforts I am aware of that have directly studied the travel behaviour of residents in gated communities.

What impact might gated communities have on pedestrian behaviour?

In this section I wish to present some tentative hypotheses as to the variety of impacts that might be expected for resident pedestrian behaviour as a result of the establishment of this particular urban form. These hypotheses are based on observations and findings from initial research into this question.

The types of gated community I was to concentrate on are Secure Resort Communities and Secure Suburban Estates, the dominant forms in the suburban regions of SouthEast Queensland. I also wish to note that the following remarks are made in a context where all other variables remain constant [*ceteris paribus*].

The Impact of Walls on Permeability

Firstly, the permeability of an urban area is immediately reduced by the presence of walled neighbourhoods, especially given the limited number of expensive guard-houses and security-controlled access points that most provide to allow pedestrians and motorists to puncture their solidified outer structure. This reduction in permeability has the likely impact of increasing trip lengths for all modes of travel.

This increase in trip lengths will likely exist for residents, who must make their way to egress points before then redirecting themselves towards their intended destination. And also for outsiders, who cannot walk directly through a gated community, instead having

to divert around it, even when that might not be the most direct route to their chosen destination.

The significance of this impact would not be particularly severe for smaller estates with perhaps as few as ten houses built on a private street – where in many ways the gated street is not much more than a glorified driveway. However for large estates, such as the 700 plus resident Logandale Security Precinct, in Brisbane’s southeast, the impact may be quite dramatic. With only one 24hr guarded control gatehouse access point, Logandale residents must travel enormous distances, well over 500m in some cases, simply to exit their estate, before re-orienting themselves and walking further to access services like neighbourhood shopping, schools or public transport. A similar problem is apparent for residents in other large Secure Resort Communities such as at Sanctuary Cove and Hope Island Resort on the Gold Coast. In many cases, the added distance may simply ‘wipe out’ all trips made on foot, including where a pedestrian trip is the first stage of a journey that includes public transport. The effect is also multiplied when a number of gated communities are co-located alongside one another, as occurs in the Brisbane suburb of Robertson.

In some cases, gated community designers have either voluntarily or been forced to include additional entry/egress points in the design of their estates, specifically for pedestrians. Such features can only be encouraged.

The Impact of Restrictions on Delivery Functions

Secondly, certain functions that many urbanites take for granted, such as a daily newspaper delivery to one’s doorstep, are not possible in most gated communities. Return journeys of over 400m in length may be necessary simply to collect one’s mail when postal workers are denied entry to an estate – a common restriction.

Should individuals choose to walk the extra distance to collect mail, papers, milk or other materials, this may be considered a positive impact for a sedentary Western population. Unfortunately this is not what appears to occur in many situations. Instead I have observed numerous instances where individuals prefer to drive to their mailbox, as appears commonplace at *The Manor* in the Sydney’s Cherrybrook [fig. 2]. Large numbers of short, cold-start motorised trips are generated.



Figure 2. Mailboxes at *The Manor*, Cherrybrook, Sydney are both outside the gates and a significant distance down a steep hill from even the closest homes.

The Impact of Internal Design Features

Thirdly, the internal design of a gated community may also impact on pedestrian behaviour. For a long time we have known about the likelihood of generating additional non-motorised trips through the provision of appropriate infrastructure and other features.

Secure Resort Communities often have circuitous boulevards that travel throughout their estates, providing high-quality infrastructure for walkers, cyclists and other users of other non-motorised modes. They may also feature internal retailing functions such as a convenience store, and have other destinations (trip attractors) for pedestrians to access. It is assumed that these features might all impact positively on pedestrian activity.

Secure Suburban Estates, on the other hand, often provide next to no pedestrian facilities, other than 'shared roadways' of cul-de-sac design, have no retailing functions and feature few destinations that may generate pedestrian activity. Other than to access the somewhat ubiquitous common barbecue and swimming pool there is neither the infrastructure nor the incentive to move within such a site on foot.

The Impact of Increased Internal Safety

Fourthly, the higher security and safety offered by gated communities may encourage a sense of on-street safety within the resident population that may be much higher than in a surrounding community. There are three clear aspects to this element.

To begin with, personal security is a key concern and may be particularly pertinent for women. Increased levels of street safety, particularly at night-time, are undoubtedly beneficial towards encouraging pedestrian activity.

Next, the removal of through traffic, by the barrier effect of the gates, lessens the overall traffic volume, making the street itself more amenable to occupation by the pedestrian. The latter phenomena is something that many gated community developers have played on in their advertising materials, as seen in fig. 3.

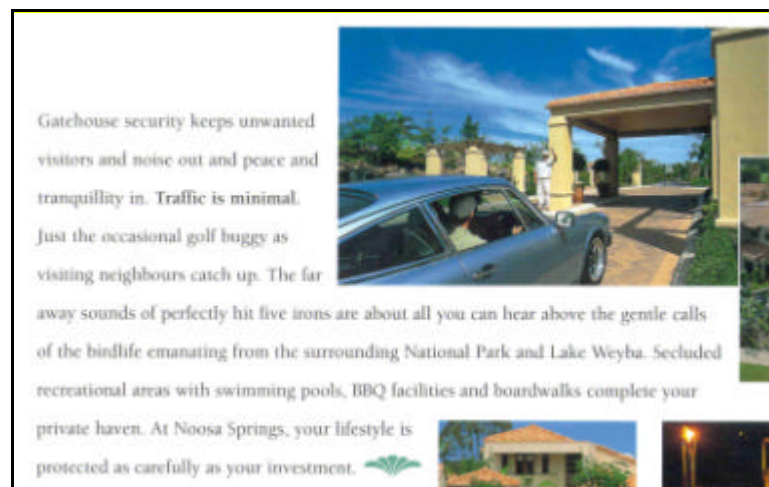


Figure 3. Excerpt from brochure for *Noosa Springs*, Noosa, Sunshine Coast.

Finally, what traffic does flow is often tightly controlled, with traffic calming measures [other than the gates themselves] incorporated into the built form of many estates.

Especially where a reasonable circuit for leisure walking is provided, as is the case in many Secure Resort Communities, an increase in pedestrian trips, and activity, should be expected as a result of the higher security and lower risk of traffic accident [or 'inevitability'] that are provided by the conditions within gated communities.

The Impact of a Fear of the Outside

Fifth, while the presence of gates may well create a feeling of security for residents inside the gates, it may also create a sense of unease about the area beyond the walls. This phenomena, if present - and that is a highly disputed question - may lead to a heightened fear of travelling outside the safety of the walls, other than in modes that also provide a sense of security, such as the motorcar.

Again, it has been gated community developers that have unashamedly used such imagery as part of their marketing exercises. For instance, in 1987 the developer of Sanctuary Cove, Australia's first gated community, Mr Mike Gore, told reporters

"The streets these days are full of cockroaches and most of them are human. Every man has a right to protect his family, himself and his possessions, to live in peace and safety. Sanctuary Cove is an island of civilisation in a violent world, and we have taken steps to ensure it remains so" (Gibson, 2000, pT1).

There is no doubt, to at least some degree, that the solidifying of perimeter barriers leads to a greater sense within the residents of being an 'insider', and of being part of a tangible 'community'. The reverse process, the creation of a perception that designates those beyond the walls as 'outsiders' is inevitable. And it is only one small mental step from being an outsider to being a threat. Particularly so when security cameras and the eyes of armed guards scour neighbouring streets. And when warning signs make it clear to all who walk by that they are being monitored and may be met with violence should they even inadvertently cross the perimeter of the site in question. Anyone walking casually by such a streetscape is obviously suspicious.

To venture into the area of risk - the area beyond the gates - is therefore fraught with perceived danger. In the developing world context and in some locations in the United States, such perceptions may actually be truthful. In the Australian context this appears quite unreasonable.

The impact of this fear may be most significant in suburbs where the gated community is of a higher socio-economic class than its surroundings, as is very common in Australia. It may also be more significant for groups within the community that have already heightened perceptions of vulnerability to personal violence, such as women and the elderly.

While the strength of this phenomena is highly debated, a number of interviewees in Brisbane Secure Suburban Estates report that they will only leave their estates in the hermetically-sealed safety of a motor-car.

Other Impacts

A range of other minor impacts can be considered as a result of the barricading of communities behind fences and gates. For instance, the presence of large and often opaque walls may make for unpleasant, unsafe and unfriendly walking environments for those outside wishing to travel past gated communities. The availability of low-speed motorised vehicles, such as golf carts, in many Secure Resort Communities leads to a reduction in motorcar traffic, though not motorised traffic, in many such communities. The use of specific entry/exit sites in the perimeter fencing has the effect of concentrating all travel flows through a particularly narrow point, leading to pedestrian and vehicular conflicts.

Conclusion

From the material presented, it is clear that there are a variety of impacts the gating of communities is likely to have on pedestrian trip-making and on pedestrian activity. Most of these impacts tend to be negative, especially for Secure Suburban Estates, the dominant form of gated community now being constructed in Australian cities. The impacts of decreased permeability and the restrictions of delivery functions in all gated communities are cause for concern. And the paucity of infrastructure for pedestrians within these estates, and the lack of trip-attracting destinations within their walls, do not suggest that this new form of residential design is likely to deliver better transport outcomes than traditional post-WWII suburbia.

This has as yet unconsidered policy implications for local government authorities who must deal with the developers seeking to construct such estates within their boundaries. If such authorities are serious about encouraging walking as a mode of transport, and about contributing to a reduction in motor vehicle emissions, the impacts of gated communities may be another issue for consideration amongst the range of site design and transport relationships that are already understood.

Further empirical research is necessary to determine how significant these different impacts are, extending the limited body of knowledge that we have about gated communities and their impact on urban life – a question that should not remain ignored.

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