Case studies which illustrate features of quality medium density housing projects in Melbourne

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ABSTRACT: The paper is an attempt to demonstrate the quality of new housing systems by illustrating examples and explaining the principles which make them successful. The paper illustrates case studies at Edgewater Estate (Maribyrnong) by Delfin/Lend Lease, City Edge Housing at Eastern Road in South Melbourne, the Mixed House Development on Cole Street in Williamstown, 205-211 Highett Street in Richmond, 'Knox Schlapp' housing on Graham Street and Esplanade East in Port Melbourne, the 'Edrington Park' Retirement Village in Berwick, the Royal Gardens on 39 Palmer Street in Fitzroy, 9-29 University Street in Carlton and the Vermont Village situated at 457-467 Canterbury Road in Vermont. The greater influences in these housing projects are people's desire for detached housing and their preferences for individual identity.

The paper will then discuss the importance of the following factors:

- Sense of security and local belonging
- Roads and footpaths
- Built form and hierarchy of spaces, Human Scale Factors
- External environment, aspect and orientation
- Ecological Design
- Types of alternative sources

The objective of the paper is to state the popularity of new housing in Melbourne looking at the case studies. It is more of an analytical rather then a research paper.

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INTRODUCTION

Over three-quarters of the population of the Western world live in town and cities. Most live in housing which were built as a part of a group. The group may be along a street, around a cul-de-sac, designed in the form of a square, clustered on a hillside or even designed within one building. History, however, has also shown that grouped housing has been considerably influenced by social ideologies and by particular planning and design concepts. However, they initially developed in one or two countries to create the ideal human habitat, in the form of grouped housing, but have been influenced by factors beyond the control of the designers and the occupants. Of these factors, the lack of proper levels of financial investment and the manipulation of house building by national governments to suit political objectives have been amongst the strongest. The results are all too evident in most countries, but in recent years the approach to the design of grouped housing by architects has shown a new awareness of factors for good design in housing. (Comerio 1987)

The influences that have brought about the new awareness are related to an increase in the general level of expectation by society at large. This concern is not just functional requirements of space, convenience, accommodation for the motor car, etc. – but also the level of esteem the housing represents for its occupants. Such expectations also mean that new grouped housing has considerable competition. In Melbourne, there is a wealth of second-hand housing, which is frequently more spacious than housing built today, and which is set in an environment that has matured over many years. As a practitioner, I have noticed that clients who are building in an area of high-esteem development will always want an individual built home which is unique and exclusive (i.e. architecturally designed). However, owning an individual house is not always realistic due to the rising costs of living and thus many people can only afford semi-detached housing as an alternative. The desire for single dwellings has nowhere expressed itself more vigorously than in the sprawling low density cities that have grown in Australia in the last century.

In Melbourne, much of the land that has been identified by planners for new housing development exists in urban areas only. If need and land availability are to be balanced there must be a positive policy for investment in the revitalisation of the inner city which must be preferable to despoiling the countryside.
However, low-density housing forms in urban areas raise problems which are difficult to alleviate. Semi-detached houses are not often built in areas of developed infrastructure and amenities (i.e. transportation, schools and shops) and are therefore difficult to sell or rejuvenated into an acceptable housing type for the next purchaser. Melbourne’s Property Guide review in ‘The Age’ newspaper written by Andrew Brasier states that:

The pattern of layout and housing form is all too familiar: the land round the cul-de-sac road system is divided into more or less equal plots, each of which receives a box-like three-bedroom house separate garage. The road is often wide with kerbs, pavements and out-of-scale streetlights. The spaces between the buildings are secondary in every sense to the motor vehicle: no community is envisaged or planned for. This contrasts sharply with the traditional town or city street or square in which housing is inextricably mixed with shops, workshops and community buildings of all kinds. Here patterns of habitation reflect social relationships and the dependence of people on one another. The land take for low density housing can be enormous and, whilst the individual’s requirements may be met, it has a considerable effect on the community as a whole, as movement from home to work, school, shops, etc. becomes even more dependent upon the motor vehicle and the quality of the infrastructure of roads. (Brazier 2005:11-12)

Whether it is more important to meet the desires and aspirations of the individuals, as opposed to those of the community as a whole is a much debated issue. What is clear in Australia is that the spread of low density housing into the countryside is taking up valuable agricultural land absorbing physical and financial resources which would be better if channelled into urban regeneration. It is to the credit of city authorities, developers and architects in Melbourne that this reality is now beginning to be expressed in programmes of new housing in inner urban location, on land formerly devoted to industrial and commercial uses. Architects have traditionally sought this ideal and opposed suburban sprawl

ECOLOGICAL DESIGN

The housing developments to be discussed in this paper have had some ecological design principles adopted. The key design principle is to create ‘sustainable’ development. This can be defined as development which meets present day needs without compromising the ability of future generations to achieve their needs (PRP Architects 2003:7). I believe Melbourne architects need to think of how new housing developments affect the air, water, soil, vegetation and people: an ecological approach means looking at a multitude of issues from energy use, waste, water run off, transport, to more significantly, green space.

Greenspace can be incorporated into development in a number of ways: firstly through taking maximum advantage of existing open space, woodland, water or any other natural feature: secondly greenspace can be incorporated by creating new green areas: thirdly opportunities also exist in the spaces between the buildings and in the buildings themselves (Paxman 2003:8). These factors were considered as important generators for the design of housing projects discussed in the case studies.

As a practitioner, I always look at the most practical use of material and sensible detailing when designing. Minimizing the use of hard surfaces, tarmac, concrete, etc. can achieve a high degree of local recycling of water and improve the permeability of the ground. Building products are selected on the basis of the replacement of the raw materials.

INFILL DEVELOPMENT

Since the mid 1970’s, there has been a significant switch from demolition and redevelopment of old residential areas to the refurbishment of older properties and the construction of new, sensitively designed housing on the small infill sites where clearance has taken place. New ‘street’ housing and town houses now abound in cities and towns from San Francisco to Sydney, Amsterdam and London to New York, as people move back to the urban lifestyle that living can now offer. The design principles that make these schemes successful are set out below.

1. The development relates to the street pattern and the lines and heights of the existing buildings. The buildings themselves are usually close to the back edge of the pavement. Just as importantly, any spaces within the development resemble those which are familiar to the locality and to the people who already live there.

2. The new architecture reflects – without necessarily copying – the existing character of the area.

3. The density of development is similar to the building form of location in which the housing is built. (Farellly 1987)

This principles help to create a sensitive balance between the public and private requirements of all residents. Most infill developments have small court yards within the project to provide quiet outdoor space for common use and yet these dwellings are designed to have an individual identity, achieved by the use of features such as projecting oriel windows, differing colours, materials and textures and even a variety of means of access from the street to front doors.

PARTICIPATORY DESIGN METHODOLOGY

Tom Woolley, community architect and Professor of Architecture at Queens University School of Architecture, Belfast, has studied dweller satisfaction in three tenant cooperatives and this has convinced him that architects have a lot to learn about the techniques of participatory design. In his community architecture paper, given at the Institute of Community Studies Housing Co-ops Research Seminar in 1986, he made the following point:

User satisfaction was related more strongly to the degree of control which the clients exercised over the projects. In the most successful case…the tenants had taken the initiative, had control of the direction and the management on the project and were willing to take on and fight all comers to ensure a successful completion. This created a general sense of solidarity and common purpose among the cooperative members which I am convinced is reflected in higher levels of satisfaction. (Ward 1987:13)

Woolley considers that, ‘the credit for the success of such projects should go much more to the clients and the way they organised themselves rather than to the architects in view of the limited nature of the design participation
activities’. He also makes the very important point that ‘architecture is not necessarily the central concern of a community group – the control, location or funding of the development, whether housing or community buildings, may be much more vital’. 

The process of participatory design of housing can be time consuming and far from easy. It is not, therefore, a cheap method of procuring housing. There is a particular problem in the early stages of a project when the feasibility of building the houses requires architectural input and there is no guarantee of the project proceeding. These problems were highlighted in The Architects’ Journal.

First, the public costs of housing cooperative education to achieve full client participation must be seen as a sound investment in empowering local communities on regenerate and develop self–sustaining economies…second, the desperate need for effective coordination of government department activities must be a reality…third, the scale of pump priming public expenditure for feasibility studies and land reclamation must be recognised. The private sector cannot and will not risk such large resources up front (Architects’ Journal; March 1988:5)

The case studies: The ‘Edrington Park’ Retirement Village in Berwick, the Mixed House Development in Williamstown and the Edgewater Estate in Maribyrnong all used the methods of participatory design where the end user had a large amount of input and contribution in the final outcome of the design. There are many aspects of design which were enhanced by this participation. These are explained in more detail in the housing project examples.

OBJECTIVES & DESIGN PRINCIPLES
The case studies illustrated in this paper have looked at the new challenge for architects and have produced highly imaginative design solutions. Not all the schemes illustrated in this paper may be liked by everybody but most of them adhere to some or all of the following principles, which should be adopted if a good design is to be achieved.

1. They are either small in scale or designed to create a sense of security and local belonging.
2. The roads and footpaths are not segregated from each other or from the buildings they serve.
3. They are appropriate to the site.
4. They relate to the surroundings in terms of the built form and the hierarchy of spaces created, whilst being of human scale and recognizable as such by the occupants.
5. The image of the development compensates any loss of amenity tied to the attached nature of the dwelling.
6. The amount and division of the space within the dwellings, and ancillary accommodation, relate to the particular pattern of living of the occupants; in addition, the spaces within the dwellings have been designed as pleasant, workable interiors and have been carefully made to complement the external environment, aspect, orientation, etc.
7. The future residents have been involved in the design process in one form or another.

The case studies to follow are from the suburban areas and inner city suburbs. They range from Carlton, Port Melbourne, Fitzroy, Richmond, Williamstown, South Melbourne and Maribyrnong; all within 5-10 kilometres of the Melbourne CBD. The outer suburb projects Berwick and Vermont are dealing with the Retirement Villages and grouped housing which deals with various aspects of participatory design and community involvement in housing.

SUBURBAN MELBOURNE HOUSING PROJECTS (EXAMPLES)
The City Edge Housing at Eastern Road, South Melbourne (Fig. 1) is designed by Daryl Jackson Evan Walker Pty Ltd and constructed by Breschi Constructions. These low-rise high-density flats and townhouses are alternatives to suburban houses or high-rise apartments. The development contains a variety of dwelling types. Mass is stacked to optimise the site limitations and orientations towards views and sunlight, balancing the competing demands for privacy and sociability. The result is an architecture of aggregation, with windows punched into walls separating dwelling and court, courts connecting gardens and footpaths, and footpaths leading to entrances. These hierarchies clarify function and what is communal. Landscape and streetscape were most carefully considered. Although it is an individual design, it still acknowledges the neighbouring nineteenth-century terrace houses with their front gardens, balconies and street colours.

The Mixed House Development on Cole Street, Williamstown (Fig. 2) is designed by Williams & Boag Pty Ltd and constructed by Galvin Construction Group Pty Ltd. The long narrow site is parallel to a railway cutting on one side and to the backyards of a number of houses on the south. It has difficult access and was found to have very poor soil conditions in parts. A mix of one- and two-storey units are arranged along two culs-de-sac running along the site’s east-west axis. These meet in the middle at a common open space. At one end six older people’s units are grouped around their own courtyard. The single-storey units are located in the south of the site to avoid overlooking neighbouring properties, with the two-storey units in the north. The units are arranged diagonally on the block to give better orientation to the north and to break down the wall effect the buildings could otherwise have. The units are also designed to be sympathetic with adjacent buildings. Variations of unit configurations were built into the scheme and building materials common to the area were used. The colour scheme was devised to reflect the suburb’s seaside location.

205-211 Highett Street, Richmond (Fig. 3) is another one of Williams & Boag Pty Ltd designs and is constructed by John Dudley and Associates. The site is a rectangular area on the north side of Highett Street. It contains a single brick-veneer house on the south-west corner, leaving an L-shaped area for development. A frontage to the Rule Street at the northern boundary meant that all car-parking could be provided well away from the busy Highett Street. The nine units are arranged along a north-south pedestrian walkway running from Highett to Rule Streets. The walkway widens into a compact open space at the northern end. Car-parking, garbage bin enclosures and collection

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points are located in an apron along this boundary. This site is organised so that all units connect with the walkway and/or public open space. Private open space is concealed in a discrete area behind each unit. Of the nine units, six are in terrace rows and three are semi-detached. Variation in the buildings was achieved by grouping common elements at different positions on building exteriors. Colour was used to distinguish each unit from its neighbour.

'Knox Schlapp' housing on Graham Street and Esplanade East in Port Melbourne (Fig. 4) was designed by Peter Elliot Pty Ltd and constructed by G Breschi and Son Pty Ltd. 'Knox Scopp' (the name of a former factory situated on the site) is a public housing project of 37 family dwellings. The buildings are situated around the perimeter of the block, producing a central court. They range in height from two to four storeys and have expressed gable roofs and polychrome brickwork. The perimeter block type of structure maintains both a public and street address and a more private inner court. This housing type is underused, yet it is valuable in the way it reinforces urban compactness and the traditional street pattern. It is a type of design mediating between the individual house and the high-rise apartment. The format of the accommodation pursues traditional Australian housing aspirations, albeit more compactly, with a front garden and entry door facing the public street, and a private service court at the rear opening onto the internal central court.

The 'Edrington Park' Retirement Village in Berwick (Fig. 5) is designed by Clive Fredman and John Malina and constructed by Zig Inge Enterprises. The development commenced in 1990 and is situated on the historic Edrington Estate, once the home of the Chirnside and the Casey families. The Historic Buildings Council required the retention of Edrington House – which dates from 1906 – and two hectares of surrounding landscaped gardens. The house, now completely restored and air-conditioned, contains the village's communal facilities. On over six hectares of elevated land surrounding the house and gardens are 153 dwellings situated in sixteen courts. The dwellings are grouped in pairs and have either two bedrooms, or two bedrooms and a study. Each has a separate title and is equipped with a 24-hour emergency call system. The village has a resident manager and a medical centre. The final stage of the development will contain the balance of the dwellings, thirty serviced apartments for a different level of resident occupancy, and a bowling green.

The Royal Gardens on 39 Palmer Street, Fitzroy (Fig. 6) is designed by Neil Evans and Noel McKernan Pty Ltd and constructed by Palmer Street Developments. The scheme was developed around an internal open space area with rows of terraces fronting the adjoining streets and lanes. All the 76 units were designed to face two directions, so that they enjoyed a view of the inner garden while gaining valuable northern sun. It was important that the scheme related to the scale of the adjoining houses, hence the end-units have been made two-storey. The building is also designed to step back from the street as it climbs to a three-storey structure and then culminates in a four-storey central bay. Single-storey entry porches and protruding balconies help to break up the façade, resulting in an interesting structure with a residential feel to it.

9-29 University Street in Carlton (Fig. 7) is designed by Ashton Raggatt McDougall Pty Ltd and constructed and developed by Caringal Constructions Pty Ltd. This project breaks away from the obvious development solution for the site, which are six or seven row houses. Instead it capitalises on the 6m wide lane at the rear to provide an integrated development of 12 units, each with street access, a secure garage, and entry from the garage direct to the unit. The front units are designed as two-storey townhouses or wide single-storey apartments, one above the other. The rear units are all two-storey townhouses, sitting over the car parks and utilising the (trafficable) roof of the front units for their private open space. The design also capitalises on the good northern views. While in its final form, the colours and materials have departed somewhat from the design, the result nevertheless indicates a highly acceptable way in which elevated densities can be achieved on tight blocks. A creative approach to the building regulations was also necessary to avoid the significant cost penalties which are associated with three-storey construction.

The Vermont Village situated at 457-467 Canterbury Road, Vermont (Fig. 8) is another of Clive Fredman and John Manila’s works and is constructed by Elliot Enterprises. The village was the first development under the new Cluster Titles Act 1974 (now superseded by the Subdivision Act 1988), which provided for this form of housing to be built and sold in stages. The village consists of 92 dwellings of two, three and four bedrooms, of which 30 are two-storey. Car parking for visitors and residents is more than three cars per dwelling. All utility services are underground in easements specifically created for that reason. Communal facilities include a recreation centre, kitchen, sauna, heated pool and spa, tennis courts and children’s playground, all located on a private ring road. Vermont Village provides a pleasant garden environment for people of all age groups and family sizes, combining both private and communal living. The development, which was innovative at the time of its construction, is still regarded as a landmark in medium-density housing in Victoria.

The Edgewater Estate by Delphin/Lend Lease is a project where a number of factors influenced the development of the whole estate and also the design of housing on the estate. The integration of the design from developers, urban planners, architects and individual residents were adhered to and greatly utilized in the development. There is a greater outcome when this type of participatory design is done correctly. Community cohesion seems to be the number one aspect of this estate. Figure 9 shows the development plan of the site as it will grow the next 2-4 years. There is a participatory role between clients, architecture and developer which is quite critical here leading towards a sustainable and practical solution to housing and medium density housing. Figure 10 and 11 shows the typical product the estate encourages and how the process helps for the satisfaction of both parties.
Figure 1: City Edge Housing, Eastern Road, South Melbourne

Figure 2: Mixed Housing Development, Cole Street, Williamstown.

Figure 3: 205-211 Highett Street, Richmond

Figure 4: Knox Schlapp Housing, Port Melbourne
Figure 5: Edrington Park, Retirement Village, Berwick

Figure 6: Royal Gardens, 39 Palmer Street, Fitzroy

Figure 7: 9-29 University Street, Carlton

Figure 8: Vermont Village, Vermont
CONCLUSION

The architects who have designed these projects believe that the principles shaping their work are the establishment of public space, pedestrian scale and neighbourhood identity and are as applicable to centre city as to suburban conditions. The new theme that links these projects is the redesigning of the vast area in which most Australians now live, sprawled between the Metropolitan Center, which is emptying out, and the open countryside, which is rapidly being devoured. The major issue here is surely to do with reshaping that sprawl of automobile suburbia into communities that make sense.

Western Culture has an increasing emphasis on freedom of expression, which places new demands on housing. Traditional nucleuses, (as some of these examples clearly show) are declining and new household patterns are emerging. Couples have fewer children and many more marriages end in divorce, leaving partners on their own or as lone parents. Many young people prefer to live on their own or share an accommodation with one or more people.

The case studies illustrates that not only do people yearn for a sense of place but look at living in a suburb or a group housing project that gives a sense of built form, hierarchy of spaces and have a human scale. Sustainable Ecological Design principles become important for the future of these types of housing projects. Some of the essential features that are concluded from these case studies are:

- Accessible location with good transport
• Location regarded as generally "sought after"
• Generous internal space and storage
• An adequate infrastructure of shops, schools and other amenities in the area
• Good security arrangement
• High standards of finish. The scheme must fit well into existing urban scale and street pattern
• High quality building materials that will stand the test of time
• Good communal facilities (PRP Architects 2003:8)

The architect will still be required to conceive and realize physical environments for their creations. To do so architects have to utilise their fundamental disciplinary skill of design. They can respond to these issues through the high quality plan dispositions, spatial relationships, treatment of aspect and orientation or by proposing new and innovative forms for their arrangement. The future of housing lies in the hands of young designers who are able to analyse the strengths and weaknesses of previous generations whilst incorporating their skills and innovations into a successful design philosophy that produces quality homes.

REFERENCES

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