

Successful Apartment Living: Combating Urban Sprawl

'Combining Quantity and Quality: can it be done in Ireland?'

Alex Ely

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Combining Quantity and Quality  
(or 'everything counts in large amounts')

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Reflecting on the strapline for the conference- 'overcoming urban sprawl' I'm reminded of how Richard Sennett attributes the retreat to the suburbs as being responsible for the 'decline of public man' and the fragmentation of society. The active urban citizen has been replaced by the passive consumer. 'Urbanity' Sennett argues is the making use of the density and differences in the city so that people find a more balanced sense of identification on the one hand with others who are like themselves but also a willingness to take risks with what is unlike, unknown.

A city isn't just a place to live or shop it's a place that implicates how one derives one's ethics or develops a sense of justice. Suburbs on the other hand rarely offer any attempt at place-making resulting in endless neighbourhoods of identikit housing, where in the words of Gertrude Stein 'there is no 'there' there.' They consequently lack the culture and diversity that allow society to develop.

If we agree that we must build more intensely how can we ensure that apartment living is acceptable even desirable?

As well as considering what the qualities are that can transform a house or apartment into a home we need to be able to make housing into a place. Place is an integral part of existence- try imagining an event without reference to locality.

Places can not be described by measurable or scientific concepts, they are about everyday life. Everyday life is made up of a mix of the ordinary and the special. The places we design should be the same.

To this end housing that is deliberately sensational or idealistic rarely creates successful places. Housing is not the place for the corruption of architecture by egotism. Orwellian schemes like these (slide below) ignore the fact that an urban housing block impacts on the wider urban realm within which it sits. Often the buildings in our cities that are most worth having are typical and ordinary intended to last and to carry meaning. To quote John Cage 'Everyday life is more interesting than forms of celebration, when we become aware of it.'

The attitude in our practice is fundamentally contextual, finding an architecture that is somewhere between memory and invention. For me radical architecture builds and critiques what happened before.

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## Tall building impact on density

### High Buildings Do Not Dramatically Increase Density!

Type	Storeys	Plot Ratio	Density (UHA)
Terrace	2	1:0.50	59
Duplex	4	1:1.00	120
Apartments	8	1:3.20	280
5 Storey Podium 1 X 20 storey tower	20	1:3.20	280
5 Storey Podium 2 X 20 storey tower	20	1:3.80	390

A brief analysis of how density relates to built form will help us to understand how we can marry the idea of high density urban living with place-making and appropriate built form. First I want to dispel the myth that high density means high-rise.

To explain this table: plot ratios are the ratio of the total floorspace in a building (all storeys) to the area of the site on which it stands. Basically it illustrates that the European model – the Barcelona apartment block of 8 that we’ve just seen is same in density terms as the American model of podiums with a tower block

These two basic massing models for a site we are currently working on hopefully demonstrate that you can push densities and create an option on the left that is broadly in context with the surrounding scale and massing of the area. If we were to opt for the tower on the right we should consider what impact this has on area.

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235 dph 235 dph

For example it may create a negative impact on local microclimate and will certainly have an impact on urban grain through the frequency of entrances and extent of building enclosure on the streetscape

Putting aside for a moment the potential of tall buildings to create landmarks and perhaps improve the identity of an area we should acknowledge that tall buildings have limited contribution to make to city intensification. Paris being 300dph and London on the left is about 200dph with half the population density, the fragmented skyline of skyscrapers adding little to the density of the city and even less to its coherence.

The second myth to dispel about high-density urban living is that it causes antisocial behaviour.

Design’s ability to combat social ills is often overstated. Density is too often associated in the popular imagination with congestion, delinquency, anti-social behaviour, overcrowding and ill-health. The early twentieth century saw a bond between physical and moral degradation. Such perceptions led to the anti-urban movement and our current problems with sprawl.

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## Tall buildings impact at city scale

The failure of estates like these should not put us off reinvestigating the potential of urban living. Poor management, lack of investment, shoddy construction, overcrowding of individual units and a concentration of the poorest in society has as much to answer for as the architectural form. It is these issues that we will need to address as much as investing in good design.

At mae architects we’ve been investigating the issues associated with urban living both in our architectural work and our research and writings. The home buyers guide for example seeks to illustrate to buyers what they should look out for in trying to identify not just a well designed house but also what makes for a successful location. Research on density and design quality is downloadable from our website.

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### The pros & cons of high density

- Advantages of high density
  - maximum use of urban land
  - maximum use of infrastructure
  - minimize urban sprawl
  - convenience
  - efficiency and viability of public transport system
  - closely knit community
- Disadvantages of high density
  - unwanted social contact
  - deficiency of facilities
  - intermix of incompatible uses
  - highly congested townscape

Increasing density per se will not in itself lead to a more sustainable environment.

There are some useful toolkits for evaluating proposals for higher density schemes, this illustrates one by an East London Housing Association. This density wheel is accompanied by a checklist where you can assess the positive or negative impact of a proposal helping to identify areas that might need further investigation and hopefully arrive at an optimum solution. Interesting that in London it is the voluntary housing associations who are leading the debate on quality and standards. I want to now look at what I see as the key issues for me as a designer.

#### A 9 point plan

I think there are a number of design attributes that contribute to successful urban residential schemes based on observation of the characteristics of places, be they historic or modern that survive the test of time and the novelty of ideas. The first three: tenure, accommodation type and management have implications for the urban form of a scheme through our choice of typologies, our approach to the distribution of units and consideration of circulation and amenity space. The second three: permeability, surveillance and public realm affect the urban grain, the layout and our consideration of context and the third three: intensity, innovation and identity are perhaps more about the character and language of architecture.

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### What is Sustainability when it's at Home?

#### tenure, accommodation, management

Rather than creating polarised conditions we need to create developments that appear seamless in their tenure, that allow people to remain in their neighbourhood if they need to upsize or downsize and designs that reflect how a development will be managed in the long term.

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Fig 10 An optimum solution to high density housing - the density wheel

Source: East Thames Housing

Abbots Wharf in London offers an equitable mix of privately owned apartments and social rented units distributed throughout the scheme, 50% of each. The units are designed to the same specification and are accessed off shared stair cores. The scheme has proved highly successful but such inclusiveness has demanded the introduction of a full-time concierge and the approach perhaps limits choice though this is compensated for across the neighbourhood as a whole. Nonetheless I think the goal of mixing tenure and catering for a wide socio-economic group is more preferable to creating exclusive ghettos of gated communities.

Our own project for a site in Colchester currently under design development proposes mixed tenure but also a wide variety of 1 and 2 bed apartments and 3 and four bed family houses.

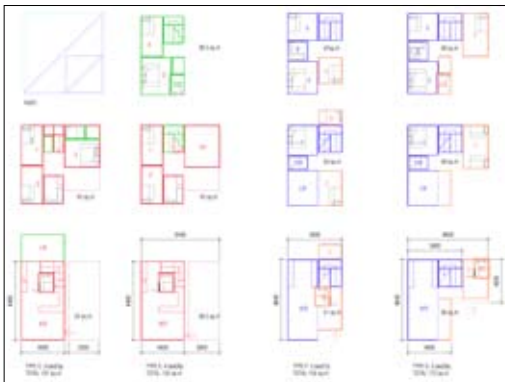




Responding to the surrounding urban form we are creating a large urban block of apartments above commercial units onto the principle road. Access is at the back off a residential courtyard, which also contains lower two and three storey houses more in keeping with the scale of development behind.

Taking this idea of achieving a good mix of accommodation further we have started to look at how, through the concept of 'loose-fit', we can offer a variety of unit types within a single block. These illustrate some 3, 4 and 5 bed duplexes and triplexes that work to the same footprint as our two bedroom apartments. I won't go into detail but the basic unit can be modified by adding or subtracting from the volume above or below. The overall volume and structure doesn't change just the type of accommodation it contains.

Here the different colours demonstrate the variety that can be achieved over a six-storey building using a modular approach. Using computer wizardry and the technique of parametric modelling we can change the mix by simply changing an excel spreadsheet, press a button and the computer works out the revised configuration; this allows us to respond quickly if the brief or the market changes.

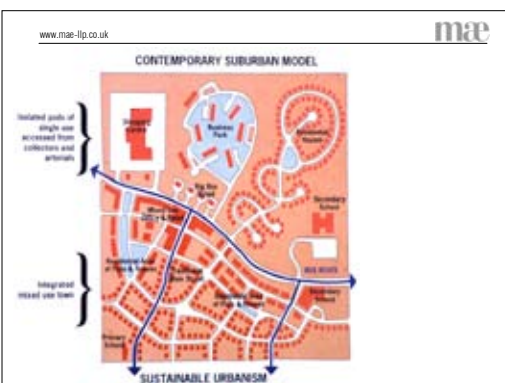
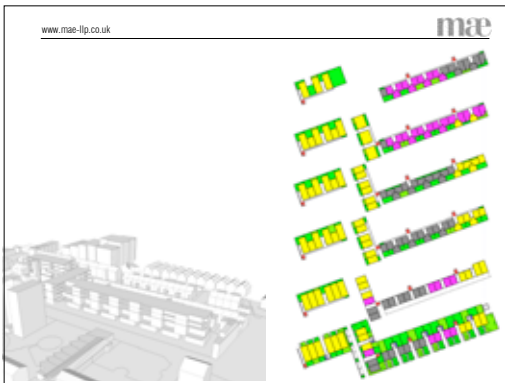


When designing to be loose-fit we also need to think about internal flexibility allowing the end user to decide if they prefer cellular or open plan living. The greater choice people have the more desirable apartment living becomes.

#### Permeability, passive surveillance, public realm

Suburban models of planning tend to segregate uses and limit access. Successful urbanism tends to be more permeable offering a choice of routes and means of navigating the neighbourhood.

That's not to say we want everything to be accessible to all and leaky developments where anyone can walk through can cause security problems. Our proposal shown here seeks to regenerate a estate that suffers from low level crime and anti-social behaviour because it lacks good definition of what is private and what is public. A simple perimeter block offers permeability by connecting up the streets to the surrounding neighbourhood but closes off a private garden at the centre just for the residents.





Passive surveillance will not in itself prevent crime but it does allow an element of community empowerment and natural policing as Hitchcock's character L.B. Jefferies testifies giving him the opportunity to understand and observe the city around him.

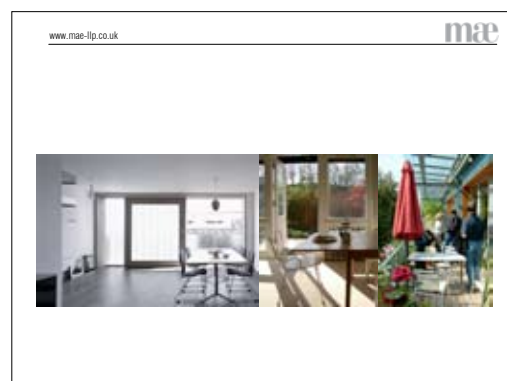
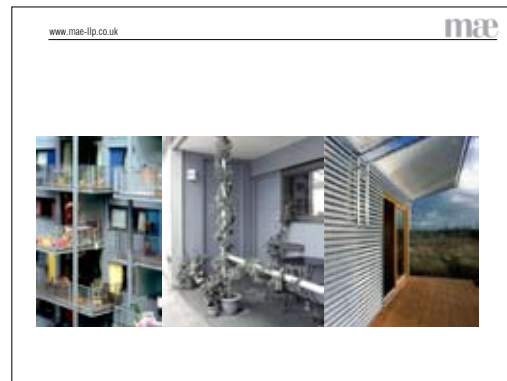
The project I just referred to similarly aims to offer good surveillance of the public realm, designing out the troublesome blindspots in the current estate. Conversely opening up a building to public gaze will lead to the loss of privacy so the threshold between the public and private realm needs careful consideration and devices that double up as balconies, porches or trellises can help mitigate against the apparent loss of privacy that many fear from apartment living.



If we expect people to live at higher density its essential that we provide the qualities that often leads people to escape to the suburbs. Access to good open space is undoubtedly one of them. Research shows that satisfaction with urban living is increased if there is access to open space of more than 10 hectares with a 10-15 minute walk from the home. The only indication I could find as to how much open space should be provided comes from Patrick Abercrombies plans of 1944 where he advocated 16sq.m of outdoor space per person. The design of public space needs to acknowledge who we are accommodating providing both quiet areas.

Space is also needed for activity and improvisation. Too often trying to minimise risk has led to bland and uniform public space.

Some form of private amenity space through the provision of balconies, terraces or porches is also critical for high density development. Along with enhancing the relationship between inside and outside space will help make urban living tolerable.





## Intensity, innovation, identity

My last three points intensity, innovation and identity influence the character of a development.

In *Delirious New York*, Rem Koolhaas defines the metropolis as a “culture of congestion”. Like Jane Jacobs his description of the city celebrates the busy hustle in which citizens enjoy anything, anywhere, at any time. Intensification is not just about pushing houses closer together but must be about achieving a sense of place and the creation of local distinctiveness that is attractive to buyers with a range of services and amenities.

Our work in the North Prospect suburb of Plymouth aims to intensify an existing estate of housing. By way of an interactive game 'Prospectopolis' we have worked with the community helping them to understand how through intensification and the introduction of higher density apartment living we can create a more sustainable place and bring into the area shops, leisure facilities, improved public transport and services.



As new issues come to light such as climate change or shortage of construction skills we have to find new solutions in order to design in a way that is sustainable. Innovation, whilst too often seen as a risk and the preserve of a few entrepreneurs needs to be promoted and encouraged more widely. The invention of the Otis lift allowed us to build above six storeys whilst today the use of Modern methods of construction and prefabrication allow us to build on difficult sites at speed and with minimal disruption

We need investigate new design solutions in order to reduce carbon footprint, which opens up huge potential for new expressions in architecture.



Often urban sites such as the Colchester project I showed earlier present particular problems such as noise and pollution that we have to design around. To deal with building next to this highway we have created a glazed buffer zone between the building and the apartments. We are not only able to reduce noise pollution but also by drawing air from the courtyard side by means of stack effect we can improve the air quality to apartments.





We are also trying to develop innovative typologies for apartment living that draw on the benchmark of a home with independent ground floor access and a private garden as the universally accepted form of a family house. In these apartments we have designed out shared circulation and the management costs that that incurs.

**In our ISE apartments** by interlocking stairs and having active frontages on both sides of the building we can offer people privately accessed apartments each with a private garden or roof terrace.

Finally I want to touch on identity. Jacques Tati's 1967 film 'Playtime' wryly highlights the alienation that people often feel with modernist architecture. The apartments here lack the familiar signifiers that allow us to read buildings and make an apartment a home. Architecture needs to be legible.

It's our inability to decode buildings like this that ironically means they rarely function as their designers would have hoped. An urban block of a similar scale and density can offer great variety by breaking it up into more humanely scaled chunks. Domesticity tends to be characterised by intimacy.

Identity is more often about drawing on the character of the town or city for which it is intended. Understanding the uniqueness of a place. Collective memory is shared in objects and places. High density cities such as Dubai or Singapore are cursed by the tabular rasa- the lack a conceptual framework or traces of previous occupancy that offer an autonomous identify. The success of places like Temple Bar testify to the importance and value of drawing on the inherent qualities of the place.

Thank you

