A Human-Scaled Future for Dense Development

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Abstract

Critics of height argue that it de-humanizes our cities. Yet a critical mass is a necessity for vibrant city life, and height is a key contributor. If we can overcome the environmental impacts and technicalities of building tall and dense, our cities' streets can thrive and prosper. To make this happen, we must move towards working together to share resources, so we can ensure the continuity of the public realm. We already have the tools to do this; the challenge lies in the coordination of the public and private institutions that govern urban space. District heating and cooling systems; shared logistics spaces; care, responsibility and ownership of the public realm between buildings; seamless connectivity between modes of transport; creative combinations of shelter and seating, and the placement of buildings so that they are not overbearing to the streets around them - these attributes can be found in many places, though rarely all at once. This paper looks at the development of the city and offers Barangaroo South, Sydney, which addresses all these aspects, as a potential template for future city planning.

Keywords: Critical mass, Public realm, Cities, Density, Scale

1. Density, Vitality, Scale and Modernity

Cities are our source of culture, democracy and progress. We all value cities that have achieved a sense of cohesion and place, particularly compact cities where nature sits side by side with human settlement – each benefitting the other to sustainable ends.

Cities have historically provided collective security and communication, with easy access to agriculture and a workforce. The centre of Pienza in Tuscany, a UNESCO World Heritage Site, was conceived at the dawn of Europe's modern age and shaped its city into an unashamedly modern place whose qualities we can still experience today. It is possibly the earliest example of Renaissance urban planning to be implemented and mirrors the radical changes of that period. We look at the heart of this city today and consider its harmony – indeed it has been described as a Utopia - but in its time this was radically new. The contrast with the old fabric is dramatic since it more than doubles its height and density. The scale of the architect Rossellino's new work would have shocked the residents of the old medieval city, but it has gained its reputation as a fine example of early-Renaissance urbanism because it did more than simply densify the city: it improved the city as a place to meet and it celebrated the virtues of the city. Rossellino did not just build a new home for his client, he extended the building project to the public realm, the city square, church and more. He considered scale and amenity together. Our cities are growing, and the only sustainable way to densify is to work holistically across our urban landscape. Like Pienza, we can densify, while making our cities better places for all.

2. Unconstrained Cities

If we leave the growth of our cities entirely to the free market without constraint, the path of least resistance will spread and dilute the very essence of the city that we value. On the Côte d'Azur in southern France, for example, the proliferation of suburbia into the dramatic, coastal landscape exemplifies uncontrolled exploitation of a lifestyle that has gradually eroded the very environment that lifestyle sought to exploit. Similarly, pattern-making, (as seen from the sky), by roads in the suburbs, such as that in Sun City - an unincorporated town in Phoenix, Arizona - may suggest the creation of community, but it is predicated on universal access to a car. The graphic focus of a neighborhood in Sun City is therefore - not unsurprisingly - a void. In both cases, these cities are uncompromisingly about the individual. Whether planned or unplanned, they place the public realm a long way down the list of priorities. And to place a house here, even an eco-home, requires an infrastructure that carries unsustainable costs.

3. Constrained Cities

Architecture is improved by constraint. When constrained we must compromise and be creative. The denser

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we build, the more creative we need to be. The denser we build, the more vibrant and exciting we can be and the more valuable and precious our buildings and civic spaces become. In Barangaroo, Sydney, there was much skepticism about densification and the provision of significant new public spaces. This skepticism was well-founded, as history had suggested that the beauty of this city had often been exploited for private gain. As architects, we all recognize the polemic between development and development control; a mistrust that leads so often to a poor public realm. Yet it is in our common interest: it is *value engineering* in the true sense of the term.

4. Dynamic Cities

Successful cities constantly undergo change, continually reinventing themselves to stay relevant. When our practice was working on the Lloyd's Building, the City of London, (London's financial center), was a visibly mono-use business district that felt distinctly alien to anyone not appropriately dressed. It closed at 7:00 p.m., shut at the weekend, and had no color or variety. The Lloyd's of London building marked the moment the City decided it was complete: this brash new building was as big as it was going to get, and there was no appetite for further development. The rest is history: The financial "Big Bang" changed the way work was conducted, and Canary Wharf - London's other financial center - profited. To survive, the City changed its planning policy. Today, we enjoy how exciting, vibrant and global it is: alive seven days a week with a broad mix of people, from workers to tourists. And what of Lloyd's? It has moved from being the "biggest" building to the "smallest"!

5. Opportunity - Urban Regeneration

Post-industrial cities have vast amounts of urban brownfield land which blights neighborhoods. The 22 hectares of brownfield land at Barangaroo was central to this amazing, walkable city. But it was cut off and regarded as looking "the wrong way." Literally, it was on the wrong side of town and, until 15 or so years ago, not considered a part of the city. At its southern end, development had reached its fringes, but had not achieved the critical mass necessary to create momentum and change perceptions.

Barangaroo's early success is that it delivers at the density of the city core. It consolidates the city to its natural boundary. It continues the CBD's clear relationship between open and built space. And it has been delivered - contentiously - by the free market, in collaboration with the state as development authority. Like Pienza, it has been as much concerned with place-making as money-making. The money-making has financed the place-making, and the construction at city-center density has enabled the creation of a significant public realm. When complete, 50 percent of the 22-hectare site will be publicly accessible.

6. City Cluster - Planning Context

Building tall, selfishly, entails significant localized impact on infrastructure, particularly access. Unchecked, traffic strangles cities as they densify. The only sustainable way is to build dense at public transport nodes. The City of London has allowed no new parking spaces for the last 35 years, and this has encouraged public transport and democratized access. It has allowed the City to densify without a crisis of access. In massing terms, clusters of buildings designed to satisfy three-dimensional planning controls help soften the impact of scale and introduce constraint - enabling architects to search for clever answers. Likewise, Barangaroo's tall buildings have been considered as a collective, their solar-driven orientation and ascending mass designed equally to improve the public realm and to form a composed silhouette on the city skyline. The common logistics hub, immediate access to multi-modal public transport, extensive bicycle provision and reduced car parking allow the streets to be primarily for people.

7. Advocacy - Political Context

Architecture is always "Political," and it is especially political at scale. Building dense needs political support. In Pienza, the client (the Pope) might not have had such concerns, but today, without consensus, change cannot - and should not - be achieved. Politicians can help achieve the consensus necessary to deliver. But, as building moves far slower than politics, champions looking beyond party politics are essential, too. The realization of Barangaroo would have been impossible without a champion cognizant of the workings of government, but outside a political party structure. Good design, from street to sky, is essential ammunition in support of this political advocacy.

8. Continuity – Historic Context

To achieve consensus, you cannot ignore the place - even if the place is constantly evolving. In London, St. Paul's Cathedral was a radically modern building in its time. Today, it controls tall development across the City through protected view corridors. To successfully integrate the new with the old, we must be good neighbors. We must build on the character of the city to extend and evolve that character. I argue that, for dense development to be successful, it must be of its place. It must be generated from its context. It must not be a universal imported form. It must be site-responsive. Irrespective of scale and type, whether public or private, civic or commercial, all buildings should be required to make a positive contribution to the public realm - to the street. Barangaroo succeeds in all these areas. Its form evolved directly from its place as it responded over time to the machinations of brief development, stakeholder input and cost control. It has, in turn, evolved our practice's architectural vocabul-

ary into new areas.

9. Legibility - A Conversation with the City

Architecture, at best, is urban poetry. Its sentences, words, and letters are rhythm, scale, and grain. Its mood and vocabulary consist of the manipulation of light and shadow, opacity and transparency. Buildings must not be blind and self-absorbed. They should be unafraid to speak about what they are to the city around them. We cannot consider the contribution to the city outside without considering the nature of the buildings we are making inside. It is necessary to build workplaces at city-core density as part of mixed-use development, but we need to build tall commercial office buildings exceptionally well to ensure their durability – both socially and environmentally.

10. Typology of Tall Buildings

However, as a profession it seems we find it difficult to move beyond the standard model for tall building, despite the fact this model, long ago, cast aside one of its key conceptual origins: access to daylight. The center-core form was, and still is, of course, simple to exploit. Its purpose is to minimize net-to-gross and wall-to-floor ratios and to maximize profit - but at what cost? Under the belief that it would free up the designer it has, in fact, contributed to the architect's ever-diminishing role in the development of tall buildings. At its worst, it has turned us into formalists, dealing in a wafer-thin veneer that is required to make our building stand out from the rest; to be different and to display our uniqueness without accounting for our context and impact on the city.

Barangaroo offers an alternative view, where the careful grouping of sibling buildings by one architect can define a new neighbourhood, characterised by intense variety in its streets by many.

11. From Hierarchical to Communal Workplace

So how can we make these big buildings engage more openly and widely? It doesn't matter what shape a central-core building is, it's still a hierarchical building looking out: presidents in the corners, vice presidents between them and support staff sitting back by the core. Of course, by simply moving the core away from the heart of the building, one can look both outwards and inwards. With the hierarchy dissolved, we can begin to think about the scale of the workplace. What is the best scale for a sense of togetherness? A building plan only determines where things are. A building section, however, determines what a place is like. 8 Chifley Square, in Sydney, has a volumetric workplace at the scale of an opera house auditorium. An opera house, like the famous La Scala in Milan, is designed so the soprano's expressions can be seen from

all parts of the auditorium. This scale is equally applicable to a workplace community, to give a sense of togetherness. At 8 Chifley, the community has shared views to the city: it engages both inside and out. At Barangaroo, the buildings are flexible enough to adopt both volumetric workplaces - as at 8 Chifley - and provide large, uninterrupted floors adaptable to a wide variety of workplace concepts and arrangements that encourage community, as evidenced by the huge diversity of interior fit-outs across all 3,000,000 square feet (278,709 square meters) of almost-identical floor plate in Barangaroo's three commercial towers.

12. Corporate Identity - In the Public Realm

The communal workplace does not need confining to the indoors. At the BBVA Bank headquarters in Mexico City, and at Barangaroo, outdoor virtual rooms bring together a multiplicity of communities and give them all a meaningful place in the larger organization. That same virtual room is also valid as buildings come to ground. At The Leadenhall Building in the City of London, the entire ground level is public realm, flowing under the building. The building engages with the street through openness and drama, and invites you in, without losing its corporate identity; in fact, it accentuates the drama. At Barangaroo, the placement of commercial lobbies on secondary pedestrian streets – leaving the prime frontage to retail - has created a dramatic scale change that allows multiple identities to co-exist. By making these moves, we have more vocabulary available to us that can begin to speak to the city at different scales. This means not just at the city scale through the skyline - but at the building scale through legibility, and most importantly at the ground - at people-scale, too.

13. Conclusion: A Human Scale - Rhythm and Grain

This essay has been about bringing a human scale to tall buildings, and about encouraging the workplace community. This same community is an essential component in giving vitality to the street. By extending the day, and blurring boundaries between work and leisure, we can create a vitality that can help deliver a critical mass - the momentum - for a vibrant city. The street is all-important in achieving this. But to bring a human scale to the street as our tall buildings come to ground, we should engage outwardly and retain a clarity and a dialogue: we should not hide behind layers of frontage which deny their existence.

I believe we can celebrate both the street and the skyscraper: they can work together without suppressing each other. This is the successful driving force behind Barangaroo. Indeed, the dynamic tension between these aspects makes for a more human place; perhaps a Pienza for the 21st century?