



CTBUH Research Paper

ctbuh.org/papers

Title: **The Sky Court - A Viable Alternative Civic Space for the 21st Century?**

Author: Jason Pomeroy, Associate Director, Broadway Malyan

Subjects: Architectural/Design
Social Issues

Keywords: Community
Sky Garden
Social Interaction

Publication Date: 2007

Original Publication: CTBUH Journal, Fall 2007

Paper Type:

1. Book chapter/Part chapter
2. **Journal paper**
3. Conference proceeding
4. Unpublished conference paper
5. Magazine article
6. Unpublished

© Council on Tall Buildings and Urban Habitat / Jason Pomeroy

The sky court

A viable alternative civic space for the 21st century?

'The city square has for centuries been a place for social interaction, trade and commerce, information exchange, religious and political address, festivities and sporting events; an urban hub that can embody a multiplicity of function and adapt over time through changing socio – economic needs.

The effects of industrial capitalism and secularism however, have not only seen the fall of public man but the slow disintegration of the public realm. Coupled with population growth and the increasing density through re-migration to inner city centres, we have witnessed a fundamental shift from the figurative places of the past towards the increasingly dense high-rise objects of the present. If we continue to build dense and high, should we not be creating recreational spaces in the sky as viable alternative civic spaces for the 21st century to replenish the loss of public domain and civic realm?

This paper puts forward an argument for sky courts as a viable alternative space as an accompaniment, rather than replacement, to the traditional street and square. I establish whether there are any similarities, conflicts or common traits between the established semi-public domains of the privately owned square and arcade with the sky courts, and draw conclusions as to their viability as alternative civic spaces in dense (high-rise) urban developments of the 21st century'.

Codes of conduct and agreements in civil society have helped shape the urban environment. The street and square, predominantly owned, governed, and managed by the state, have for centuries provided a stage set and theatre for civil society to be both actor and spectator in public – a forum to engage in social, economic, cultural or political activity, and in so doing convert space into place.

Secularism and industrial capitalism have not only led to 'the fall of public man' (Sennett, 1976) but also to the decline of the public realm. Coupled with population increases (an estimated growth from 2.5 billion people in 1950 to at least 9.2 billion people by 2050) is the knowledge that, in 2007, more than half of the people in the world will be living in cities (UNFPA, 2005). We will see further inner city densification and the continued eradication of public open space.

Such changes have historically spawned alternative spaces within new building typologies that have sought to readdress shifting patterns in civil society and to help replenish the loss of open space for social interaction and recreation. These semi-public domains, such as the 18th century court (for meeting), the 19th century arcade (for promenading), and the 20th century internal street and roof garden (for recreation), attempted to recapture elements of public life within what were essentially privately owned and managed objects of speculation, outside of the jurisdiction of the state. This set up new and interesting relationships between public and private and provided opportunities for interaction across the disparate class divides of a changing society.

With the continued shift away from the figurative open spaces of the street and square to dense, high rise developments in increasingly densified inner city locations, should we not be advocating the need for recreational and civic spaces in the sky as an alternative space for the 21st century, just as the court, arcade, internal street and roof garden were in the 18th, 19th, and 20th centuries?

Despite the plethora of urban design reports aimed at creating a consensus that good quality civic spaces should be a political and financial priority, there seems to be little published planning policy guidance that stipulates ratios of built up high-rise development to open public (or even semi-public) space within the tower. If planning policy guidelines suggest particular regional ratios of built up area to public open space (often 3:1 of the site or 5:1 in inner city locations) (GLA, 2001), should there not be a similar provision made for skyscrapers that seek to amalgamate the low rise mix used development into the high-rise to create vertical extensions of the city?

The notion of sky courts is not an alien phenomenon. Diodorus Siculus, in the 6th century B.C., recorded the ancient gardens of Babylon as a series of planted terraces supported on stone arches 23 metres above the ground and mechanically irrigated by the Euphrates River. Vignola's Villa Giulia in Rome manipulated levels, to afford high-level views from raised terraces, where Julius III could enjoy an evening's entertainment. Le Corbusier's Fourieresque social condensers in Marseilles and Berlin also capture an element of recreational open space for amenity, health and well being for the occupants of his Unite's.

This paper puts forward an argument for sky courts as a viable alternative space within highrise development as an accompaniment rather than as a replacement of the traditional street and square. Using the hotel, arcade and skyscraper as historical precedents to demonstrate how the eradication of public space has been compensated for by the incorporation of semi-public spaces, it will illustrate the shift of urban precedence from the figurative public space of the square to the private iconic object of the high rise. These models will allow us to consider the following questions:

Why do we need sky courts?

Does the sky court embody similar public domain characteristics like the square or arcade? If so, can the sky court be a public domain?

Can the sky court be a viable alternative space for the 21st century, and if so, how?

From hotel, to arcade, to social condenser

Up until the 18th century, the city was determined from the outside – in. Rationalized outdoor rooms of voids dictated the city; the buildings' solid form accommodating the urban idiosyncrasies by acting as contiguous in-fill elements that reaffirmed the predominance of space over object. By the middle of the 18th century, 'public space was implicitly traded for the private object, a deal that formally represented the beginning of the end of the *res publica*' (Dennis 1986). The emergence of the hotel (a noble's city residence) responded to changes in the built environment and its social patterns. Its incorporation of a semi-public court enabled members of civil society to enter the private curtilage of the site to promenade, meet and congregate. As the court was not public, the policing, management and maintenance fell to its owners. Such a philanthropic approach by minor members of the aristocracy allowed them to feel that their contribution would benefit civil society through the provision of such space. The court sought to replenish and support the primary figurative (and also symmetrical) void of the public square. (Figure 1).

The figurative (semi-public) void within the urban infill of the hotel is a microcosmic analogy of the traditional city and an attempt to recapture open space for the greater good of civil society through a public – private interface.



Fig 1. Hotel Corzat, off Place Vendome, Paris, France.



Fig 2. Galleria Vittorio Emanuele II, Milan, Italy

The birth of industrial capitalism in the 19th century saw the creation of the arcade as a reply to civil societies' need for a managed alternative space that offered shelter from the elements with the ability to promenade and view products in public. Being managed and maintained by the speculative property owner, the arcade's semi – public pedestrian thoroughfare provided an environment that was free from the tyrannies of social disturbance and traffic for the burgeoning bourgeoisie.

This space provided a link between two existing public squares or streets and was either bordered or covered by a building, which had its own use. Unsurprisingly, it became the symbol of cultural progress for newly established nations seeking recognition in a way not dissimilar to modern developing countries showing newfound independence, wealth or power by building skyscrapers. (Figure 2)

Industrial capitalism was the catalyst for the creation of the arcade as an object of private speculation. It also demonstrates how a public – private interface can create semi-public

domains for the benefit of civil society. In the 20th century, continued social and economic change saw a need to create more housing out of slum clearance and a revision of existing infrastructures to cater for new modes of transport. Modern city planning and the consequent embrace of the private object building over public figurative void saw the determination of space from inside – out. This caused the erosion of public space.

Rationalised solids (i.e. core structure and service elements) dictated the building within the city; the void spaces becoming the habitable space left over. High-rise structures' reconciled this loss by incorporating an element of public space within the private curtilage of the development. Such a move towards sustainable microcosms of urban life with supporting recreational facilities, indoor streets and outdoor raised plazas, owed much to the early vision of Fourier and then Le Corbusier, spawning a legacy of high density development or skyscraper design. At the same time, however, it signaled the death knell of how the spaces were to be used by the public. (Figure 3). ↗



Fig 3. L'unité d'habitation, Marseilles, France

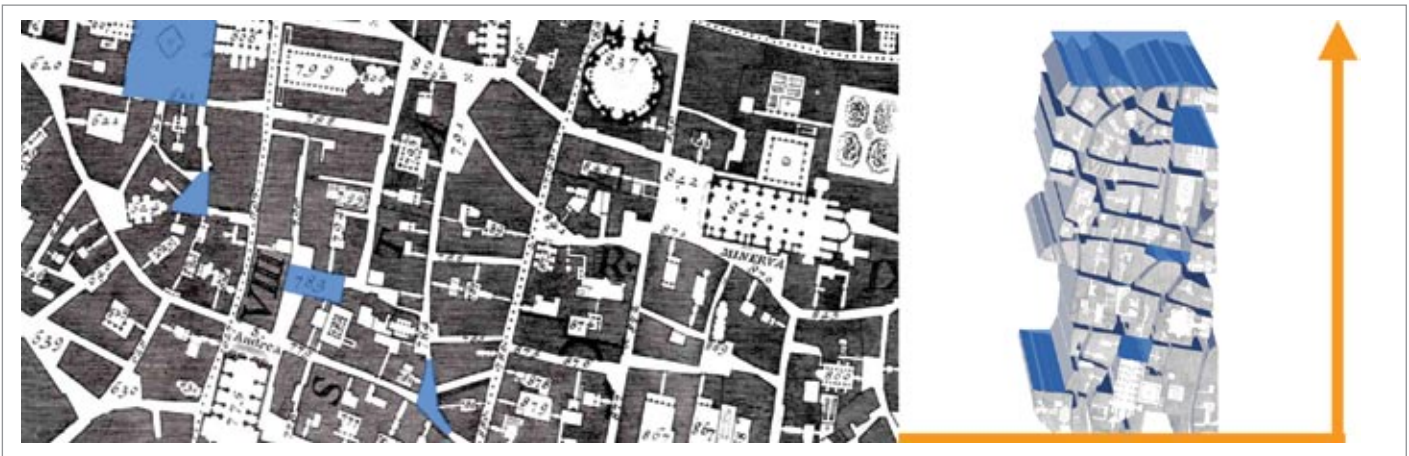


Fig 4. Piazza Navona, Rome, Italy

Le Corbusier recognised the importance of recreational space for the greater good of the inhabitants of his Unite's and attempted to capture elements normally associated at street level in the sky. Increasing land prices, optimized land use by developers, population growth, and symbolic gestures of power and identity have created a building type that has become a global phenomenon in cities of increasingly higher densities. It's repetitive and non-contiguous form can lack the diversity and richness of life that exists at ground level. Many high-rise developers and civil authorities have failed to understand the importance of semi-public spaces that would improve amenity, well-being, good health, productivity and social interaction. They have also been unsuccessful in their integration into the macro urban fabric. JG Ballard's popular fiction, *High Rise*, cautioned about the potential for developments to end up being isolated, poorly conceived islands, divorced from their surrounding context and crudely executed by local authorities motivated by finance, as was disturbingly realized in Pruitt Igoe housing scheme, Illinois.

When we look at the figure ground diagrams from the 18th century to the present day we can see that the transformation is complete – the slow eradication of figurative public space in lieu of the private object that stands within open, undifferentiated space. The modern city of towers has become the antithesis of the traditional city, which had heralded building types such as the hotel, arcade and the social

condenser. These have tried to recapture the essence of the public realm in semi-public spaces.

The hotel and arcade are suitable models for the sky court as an alternative space for the 21st century. The former's incorporation of semi-public court within the curtilage of the private residence can be used for social interaction whilst the latter's retail element at ground floor invigorates the street. This sets up a hierarchy of void spaces with its larger figurative public space counterpart whilst contributing to the footfall, amenity and interaction of civil society. The latter's incorporation of semi-public thoroughfare can be used for link and transition between larger public spaces and, as with the hotel, provides an environment for social interaction as well as to help create a hierarchy of void spaces within the greater urban environment.

If we were to extrapolate this figure ground diagram vertically, or even crudely turn Noll's traditional plan representation ninety degrees, we end up with an interesting figure ground section that starts to illustrate how semi-public spaces can be incorporated into high-rise structures. These can be suitably placed into a hierarchy that supports the primary figurative voids on the ground or, in their absence, can create them in the sky. It, therefore, advocates a combination of the two urban philosophies – the incorporation of figurative semi-public void space that harnesses the characteristics of the public domain within the figurative private object. Can this be an alternative civic realm for the 21st century (Figure 4.)?

If the high rise is viewed as an extrusion of the city, the public street and square can be reinterpreted through the vertical semi-public circulation arteries and sky courts respectively – enriching and supporting the existing urban grain of the city and its hierarchy of open spaces.

The Sky Court

Many of the characteristics embodied in the semi-public domains of the corporate square, arcade and hotel are similarly found in the sky court. This would suggest that it could be a viable alternative semi-public space. It is appropriate now to revisit the initial questions that this paper set out to answer.

Why do we need sky courts?

If the population is to increase at the rate predicted by demographers and statistics illustrate a migration to inner city centres, densities will increase. This will create a potential loss of open space that is much needed for health, recreation and amenity for civil society. It is therefore important that an element of open space is reclaimed and, if not on the ground, in the sky. If planning policy guidelines support mixed use development, traditionally set out as groundscrapers with open space for recreation and calculated through two dimensional land use studies, we should similarly calculate, in three dimensions, the mixed use high-rise as a piece of vertically extrapolated city with a similar ratio of open space in the sky. Like the open recreational spaces of the groundscraping mixed use development, these sky courts could act as

the gel that brings the disparate mixed uses together in order to create community hubs. These will then act as destination, transitional node and recreational facility.

Such an approach could create a new network of semi-public spaces in the sky, embodying public domain characteristics more commonly associated with the traditional public realms of street and square. It would set up a hierarchy of void space that assists in integrating the high-rise with the urban fabric of the city. This would be analogous to the hierarchical levels of figurative void and poche between the public square and the semi-public court of the 18th century hotel or thoroughfare of the arcade. These spaces should facilitate health and well being, recreation and social interaction,

also act as a destination, exploiting the mixed-use functions in the building and the income generating facilities within the intermediary sky courts to draw people up through the building. Panoramic roof-top views are an obvious destination from which to entice people up to the upper realms of the high-rise.

Such an approach would establish the sky court as both a transitional and a destination space, ameliorating the risk of creating uni-functional, bland, non-contiguous environments that are not integrated within the wider urban context. These can lead to indefensible spaces that breed crime, social intolerance and building related physical psychological disorders (Burge, 2004). The sky

Unlike the City Square, which is owned by the state, it is difficult for sky courts to be public domain given its governance and retention within the confines of private development. Governed by a dominant power (in most cases the developments' management organization, enforced by a security company), the majority of current incarnations are semi-public spaces that lack the heterotopic multiplicity of function of its public domain counterpart and do not grant citizens the freedoms of expression and movement more akin with the city square. The dominance of corporation/developer/governmental body define how the space is to be appropriated, in order to preserve the asset.

Whilst undeniably bearing similarities with the public domain of the square as a place for interaction and sometimes recreation, the thought of holding a political rally, religious sermon or protest seems unimaginable within the high-rise. They also do not currently offer the same quality of visual connectivity experienced when traversing horizontally between street and square – moving vertically within the sealed confines of a lift disconnects the traveller with the external environment. There is no possibility of chance meetings, street activity, feel of the climatic conditions or the visual sense of approach one would otherwise have found at street level. It is also questionable as to whether, in their current state, they can improve the local economy or offer regeneration prospects. Whilst the square can form an intrinsic node that can draw people together to interact, trade, and create a starting point for further development in and around its centre, the sky court in its current guise is a pre-conceived given – constrained by the very high-rise that retains it and in turn any prospect of future development or regeneration.

Despite the above, sky courts can embody public domain characteristics, just like the hotel, arcade, and privately owned squares of large corporations that permit access. The sky court does not need to be strictly public for it to embody the critical urban characteristics. It can be a successful space that is a benefit to civil society as a place for recreation and interaction. ↗



Fig 5. Sky courts of amenity and recreation

diversity and ease of movement, and function as 24-hour community hubs that can instill a sense of civic pride and identity. In so doing, it can act as a transitional thoroughfare within the tower by connecting the disparate vertical circulation methods of ramp, stair, escalator or lift. Further circulation to higher levels within the tower could then be accessible from the sky court level, thus increasing footfall through the court and encouraging activity, chance meetings and social interaction. This in turn would link with the existing broader network of transport infrastructure within the city, thus integrating the semi-public spaces of the sky with the public spaces of the ground. It can

court is by no means a replacement to the traditional public realms of the street and square; merely an alternative space that should reinforce, compliment and forge links with the existing infrastructure and wider community. They can replenish or rekindle the critical qualities that define the civic realm (Figure 5).

The semi-public spaces in the sky can act as the gel between different uses to facilitate good health, recreation and social interaction as well as providing convenience amenities to create a sense of community

- Does the sky court embody similar public domain characteristics like the square or arcade? If so, can the sky court be a public domain?



Fig 6. Sky courts of transition

If we can adopt urban design principles (commonly employed when creating proposals on the ground) but in a vertical fashion, as a response to the high-rise being conceived as a vertical extension of the city, we can start to consider models such as Broadgate as an example of semi-public space that can embody these public domain characteristics. Such spaces can be memorable, enjoyable and of benefit of civil society whilst being privately owned. We can then start to create sky courts that are less likely to be simple private terraces of destination but more likely to become semi-public spaces of transition that are part of a broader network within the city (Figure 6).

The sky courts should employ urban design principles to embody public domain characteristics. This should include improved circulatory methods that provide both legibility and choice, and in doing so create a vertical transitional thoroughfare.

Can the sky court be a viable alternative space for the 21st Century, and if so, how?

Skycourts present the opportunity to readdress the loss of civic realm during the gradual shift from the figurative public void of the 18th century square to the 21st century iconic object. This is achieved by incorporating alternative semi public spaces within the high-rise development to compliment the public domain of the street and square at ground level.

However, if we are to incorporate sky courts into the skyscraper, we need to be able to provide convincing arguments for its viability, in addition to improving the health and well being of both occupants and civil society. Whilst 'forward looking property investors and developers are recognizing that precision in function with no space for the unprogrammed, reduces spontaneity and the opportunity for diversity', (Worthington, 2005) they would still prefer open space being absorbed into office, residential or retail space in their quest to maximize net internal areas and the rate of return of their high-rise development (DTZ, 2005).

If we start with the premise that the skyscraper is not just a means of increasing urban density as a result of reduced usable ground area, but is also a status symbol of power and esteem over ones peers, the sky court, by its very presence within the skyscraper, could become a public beacon and focal point for interaction. This is especially true given the skyscraper's prestige and its inherent panoramic views (e.g. the Empire State, New York).

If this is the case, the incorporation of semi-public sky courts could provide developers with welcome acknowledgement of their philanthropic tendencies in providing open space for the greater good / use of civil society, in a fashion not dissimilar to the gentry of 18th century Paris (e.g. Place Louis le Grand). It would demonstrate a fine marriage between the private (developer) and the public (civil society and state) who would appropriate the space. It would create a focal point to both the immediate community of the skyscraper and the broader community of the city (Figure 7).

Sky courts provide an opportunity for the symbiosis between private and public through the supply of finance and space by the developer (private) and the management and maintenance of the space by local government (public) for the greater good of civil society.

Symbols of power and recognition for one's philanthropic contribution to civil society are all well and good for the socially conscious developer, but the issue remains that the open space afforded to the sky court is potentially lost net internal area and therefore a lower rate of return on the investment. However, the sky court can be an asset. Just as the arcade is a private speculative retail property that contains semi-public thoroughfare appropriated by civil society, so too can the sky court function as a quasi vertical arcade with shops, cafés, restaurants and other income generating retail opportunities that will draw people up through the skyscraper and create a much needed sense of destination to the intermediary and upper realms of the high-rise. This will increase footfall and improve chances of passing trade, thus creating a more commercially viable retail environment with greater prospects of social interaction, as well as revenue, for both developer and tenant. Such an approach reinforces the importance of the sky court as a viable semi-public space with public domain characteristics that could become a hub of interaction for both its occupants and the larger civil society of the city.

Another commercially viable option is to establish the sky court at roof level, thus allowing the cautious developer to maximize the net internal areas and, therefore, the rate



Fig 7. Middle: Commerzbank, Frankfurt, Germany. Right: Place Louis le Grand, Paris, France

of return on the lower floors. Siting the public revenue-generating facilities on the roof, in a fashion not dissimilar to roof of the Unite d'Habitation, Marseilles, can create a destination that will draw people up and through the building. An example with panoramic views is the Umeda sky building in Osaka, which is a popular pay as you go destination.

To facilitate the above, we should be advocating for open space within the high-rise as a planning policy that seeks to readdress the loss of public space from the ground. This could be adopted as part of the local development framework as well as informally contributed to the local government / borough / city by the developer. Just as contributions are made between the investor and local authority in improving the built environment at ground level, so too could the sky court public – private agreement enhance the urban environment by replenishing it with habitable, social space in the sky. Such an approach furthermore establishes a symbiosis between private corporation and state, in a way not dissimilar to the historical precedents of the Campo in Siena, the aristocratic hotel in Paris, the arcades of the 19th century, and more recently as Broadgate in London. The sky court offers a remedy for our increasingly dense cities; replenishing the vanishing open spaces, supporting the existing network of voids in the city, and effectively creating a viable alternative in the civic realm for the 21st century.

References

- Bacon, Edmund N (1992), *Design of cities*, Thames and Hudson,
 Ballard, JG (2003), *High Rise*, Flamingo,
 Benedikt, Michael (1992), *Cityspace, cyberspace and the spatiology of information*, Princeton University Press,
 Burge, PS (2004), *Sick building syndrome, Occupational and Environmental medicine*, BMJ Publishing group,
 CABE, (2003), *Guidance on tall buildings*, CABE and English Heritage,
 CABE Space, (2004), *Better public spaces*,
 CABE Space, (2004), *Parks and Squares, who cares?*,
 Collins, George R / Collins, Christianne Craseman (1986), *Camillo Sitte: the birth of modern city planning*, Rizzoli,
 Dennis, Michael (1986), *Court and garden*, MIT press,
 DETR / CABE, (2000), *By Design – Urban design in the planning system: towards better practice*, DETR,
 Foucault, Michel (1986), *Of other spaces*, Diacritics,
 Frampton, Kenneth (1992), *Modern architecture, a critical history*, Thames and Hudson,
 Geist, G F (1983), *Arcades – a history of a building type*, MIT Press,
 Greater London Authority, (2001), *Interim strategic planning guidance on tall buildings*,
 Hall, Peter (2002), *Cities of tomorrow*, Blackwell,
 Hillier, Bill (1996), *Space is the machine: a configurational theory of architecture*, Cambridge University Press,
 Lefebvre, Henri (1991), *The production of space*, Oxford Blackwell,
 Lepik, Andreas (2004), *Skyscrapers*, Prestel,
 Lynch, Kevin(1960), *The image of the city*, MIT press,
 Melet, Ed and Vreedenburgh, Eric (2005), *Rooftop architecture*, NAI publishers,
 Powell, Robert (1989), *Ken Yeang: Rethinking the environmental filter*, Landscape books,
 Rogers, Richard/Urban Task Force, (2000), *Towards an Urban Renaissance*,
 Rosehaugh Stanhope, (1988), *Broadgate*, Penschust press,
 Rowe, Colin and Koetter, Fred (1978), *Collage city*, MIT press,
 Rowe, Peter (1997), *Civic realism*, MIT press,
 Sennett, Richard (1976), *The fall of public man*, Faber and Faber,
 Struver, Anke and Best, Ulrich (2002), *The politics of place: critical of spatial identities and critical spatial identities*,

- Watson, David (1996), *A history of western architecture*, Lawrence King,
 Webb, Michael (1990), *The City Square*, Thames and Hudson,
 Worthington, John (2004), *Giving meaning to the experience economy*,
 Yeang, Ken (2002), *Reinventing the skyscraper*, Wiley academy.



Author

Jason Pomeroy

BA (Hons) BArch (Hons) Mst. IDBE (Cantab) RIBA

Broadway Malyan
 152 Beach Road #08-07/08
 Gateway East
 Singapore 189721

m: +44 7717 733 931

e: j.pomeroy@broadwaymalyan.com

www.broadwaymalyan.com

Jason is an Associate Director of International multi-disciplinary design practice, Broadway Malyan. He joined in 2005 to support the cause of progressive tall building design and vertical urbanism and employs these skills in the Middle – East, South-East Asia and the lecture theatre. His research at Cambridge considered the sky court within the mixed-use tall building typology, and whether it could be a viable alternative civic space for the 21st century. In addition to helping establish the Singapore office, he is a Practicum Faculty associate professor of the University of Hawaii and visiting lecturer at the Canterbury School of Architecture, Nottingham University and Imperial College London.