Acknowledgements:

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Andres Sevtsuk
1. Introduction
The perception of urban environments is as much influenced by the structure of public space as it is by the privately controlled building interiors that extend the publicly occupiable realm deep into their interiors, lining outdoor spaces with eyes, views and merchandise. In mapping urban space, there is a deep-rooted tradition, however, to clearly differentiate outdoor and indoor spaces of a city. Urban design plans typically mark buildings as solids and render space between them as void that members of the public can occupy within allowable limits. Building interiors, which form the origins and destinations of most urban movement, are usually not part of the picture. Facades mark coarse limits between public and private space, omitting an important part of the publicly accessible realm that goes beyond the street.

Debates on private and public space in planning literature also tend to paint the two as dichotomous, usually arguing for a greater need towards one or the other. Numerous studies have looked at privately managed parks, plazas and other outdoor venues as privately owned public space (Whyte 1980). But privately owned occupiable space inside buildings constitutes a gray area, which despite it ambiguous territorial claim, plays an important role in shaping our experience of the built environment.

The relationship between the private and public, the built and the unbuilt, has been studied by numerous urbanists and led to different mapping techniques. Nolli’s figure-ground map of Rome from the 18th century depicted religious spaces and civic structures as extensions of the public realm (Figure 1, top left). The white space of the street flowed through selected interiors, joining basilicas, cloisters, courtyards and enclosed gardens (Bufalino, Nolli et al. 1748). Sitte’s plans of Vienna and Lucca in the 19th century distinguish the built and the unbuilt, religious and generic structures (Figure 1, top right). Walls and selected landmarks were additionally shown with thinner lines (Sitte 1889). Habraken’s maps of Dutch towns in the 20th century moved away from emphasizing religious spaces and instead distinguish spaces into built or unbuilt, thematic or generic (Habraken 1973). Whereas Nolli’s map of Rome depicts public space as a white continuum from streets to building interiors and enclosed courts, Sitte’s and Habraken’s system differentiates public from thematic, making it possible to include a number of different thematic categories of buildings. Anderson’s studies of Paris and Cambridge provide an elegant synthesis of these earlier forms of representation (Anderson 1978). The built versus unbuilt focus shifts from solid building masses to a more accurate representation of structural elements, such as loadbearing walls and columns.
Thematic categorization expands from buildings to all space that lies in or outside the structures. Instead of functional themes, Anderson categorizes urban spaces as public, occupiable and dwelling space. Each category can be further distinguished on a gradient describing how accessible it feels. Public spaces are usually outdoors – streets, squares, parks – spaces that are typically owned and managed by the public sector. Occupiable spaces are typically privately owned, but allow public access. They are comprised of indoor businesses and services, institutions and organizations that are open to the public, including courtyards and other private outdoor spaces. Dwelling spaces depict people’s homes and residential environments – gardens, private decks and common circulation areas. Dwelling spaces are generally not open to public access. Each one of these three categories can lie on a gradient from very accessible (e.g. a sidewalk) to inaccessible (e.g. a private apartment). Anderson’s work is unique in introducing ‘occupiable’ spaces as a mediating category between public and private and implementing a gradient for illustrating how accessible each space is to public access. Combined with the representation of structural elements, it offers a comprehensive technique that includes the built and the unbuilt, thematic groupings, as well as the degree of publicness of each space.

We have implemented Anderson’s mapping categories in the Bugis and Punggol areas of Singapore as part of an observational survey in 2012 (Figures 4, 7). An engineering plan of ground floor load bearing structure is overlaid with thematic spaces, divided into Anderson’s three groups – public spaces (shown in shades gray), occupiable spaces (shades of orange) and private spaces (shades of red). A gradient of color saturation indicates the level of perceived accessibility in each space with darker colors indicating more welcoming access. We have replaced the ‘dwelling’ theme with a more generalizable ‘private’ theme, which includes both work spaces (e.g. offices, technical rooms, janitorial spaces etc.) and dwelling spaces that are generally closed to the public.
Revisiting a tradition of mapping the public domain of the built environment, our work builds on the shoulders of Nolli, Sitte, Habraken and Anderson to investigate mapping and analysis techniques that capture the built and unbuilt public space of a city in a continuum. We explore what possibilities digital map data and spatial analysis can add to the depiction and understanding of urban space. Of particular interest to us was the prospect of integrating the spatial and thematic representational features with a spatial network representation that would allow different map elements to be connected via a pedestrian experience. We therefore documented all pedestrian walkways of our study areas as spatial networks. The mapping of pedestrian routes was performed on all levels of buildings that were accessible to the general public, including upstairs, downstairs, indoor and outdoor paths.

In addition to the thematic categories – public, occupiable and private – we additionally chose to document all doors and entrances observed in the publicly accessible areas inside and outside buildings on all levels. Each building entrance, business entrance, office door, dwelling entrance, including all back doors that could be observed were documented as points. In addition to Anderson’s three broad categories of space, we detailed each point with a series of
indicators describing the uses it contains (e.g. bakery), its business name (if applicable), approximate size, approximate number of staff and its perceived level of public accessibility so that their spatial distribution could be analyzed at a greater level of detail. All these indicators were approximated visually in the field by surveyors. We developed a nested representation for entrances, such that each point was placed at the spatial control boundary (e.g. door) of the space it led to, making it possible to later analyze the organizational hierarchy of occupiable spaces (Habraken 1998). Figure 3 illustrates the three-dimensional view of these entrance points as well as the pedestrian pathways connecting them along a continuous network.

Central to our representation choices was the possibility to analyze the inter-relationships between different spaces on a computer. Despite the wealth of information embedded in traditional map drawings, it is difficult to evaluate how the inter-relationships between the built and the unbuilt, thematic or non-thematic spaces vary from one space to another.

Our approach stipulates that urban spaces are primarily experienced sequentially, by moving from one space to another. Rather than evaluating inter-relationships between spaces along idealized straight-line connections, it was seen as more useful to evaluate spatial relationships along the available circulation networks. Which spaces are experienced as adjacent to which other spaces depends on the circulation routes between them. Similarly, how close a space is to the street and how many other spaces need to be passed to get to an occupiable space deep inside a building, depends simultaneously on the distribution of other spaces and the circulation paths between them. A representation of urban space that lends itself readily to both qualitative visual analysis and quantitative spatial analysis along networks, embodies more possibilities than either approach alone. Visual plan analysis is indispensable for architects and urban designers. Quantitative measurement along networks helps capture relationships from a map that would be prohibitively laborious to do visually (Sevtsuk 2013).
Figure 3. Axonometric view of the three-dimensional pedestrian network and entrance locations (red dots) in Bugis.
Figure 4. A section of the map surveyed in Bugis distinguishing public, occupiable and private spaces.
2. Bugis and Punggol case studies

Two sites – Bugis and Punggol – were chosen to implement the representation in concrete realities of Singapore’s city fabric. The two areas were chosen as both examples of high-density development, but contrasting in land uses, urban form and development mechanisms. Bugis, located in the island state’s downtown, is a historic district composed of highly diverse buildings and streets (Figure 5). It is home to thousands of small shops, eateries, varied service providers and a few larger malls. On the eastern edge of Bugis lies Kampong Glam – an old Malay neighborhood of low-rise shop houses, the Sultan’s Mosque and numerous Malay and Arab businesses. The western side of Bugis has a gridiron street network that dates back to the Raffles plan of 1823. The area has been largely redeveloped since the 1960s with deep floor plate commercial buildings and a few mixed-use HDB blocks, including Waterloo Center, Rochor Center, Bras Basah Complex and Albert Center. We coined these latter types condenser blocks due to their unique mixture of hundreds of small businesses on a multi-story podium, with thousands of residents and public roof gardens above. Between the low rise shop houses of Kampong Glam and the large modern blocks on the west, a visible stretch of urban fabric has been demolished to make way for the newly envisioned north-south Ophir thoroughfare. The center point of our study area, the Bugis MRT station, along with numerous bus stops scattered around the site, make Bugis one of the most accessible districts in Singapore. Tens of thousands of visitors attend the various specialty shops, eateries, art centers, and malls of Bugis every day.

Punggol, our second investigation site, is a high-density residential suburb in the north east of Singapore. As one of the newest Housing Development Board (HDB) sites, Punggol is a state-of-the-art HDB new town that already houses over 50,000 inhabitants. Sixteen-story high apartment blocks wrap around multi-story car parks in the middle of each block, with ample roof gardens on the garages and carefully designed recreational areas between the buildings. Almost all apartment blocks are lifted on pilotis, creating vast un-programmed void decks below the buildings. Punggol feels dense but also green. Population density is high – around 30,000 people per square kilometer on average – whereas commercial development is low and concentrated in planned structures around transit stations. Due to a network of man-made canals, ample green areas, and a high-tech elevated transit system, Punggol has been coined an ‘eco town’ and a model for other HDB estates to follow.

Whereas Bugis fulfills a largely commercial need for visitors from all over Singapore, Punggol exemplifies an answer to the challenge of housing a rapidly growing population efficiently and comfortably. Bugis is economically and visually complex – its small privately owned parcels have been shaped by thousands of inhabitants and businesses over time. Punggol is new and
planned, a naturally “parametric” fabric, designed intentionally with tested block types, public space ratios, planned amenities and calculated accessibility levels to schools, transit stations and stores. Most land in Punggol is managed by HDB, with a few sites leased to private developers for condos. Its holistically planned nature and coordinated construction make Punggol more of a “project” than a multi-actor environment that has shaped over time.

In both case study areas we analyzed how much publicly occupiable space is available inside or under buildings, what the nature of that space is and how close or far the occupiable spaces are from streets or outdoor walkways. Figure 7 illustrates a visual comparison of the ground floor plans and a thematic classification of public, occupiable and private spaces. It is clear that Bugis contains a much larger share of occupiable built spaces than Punggol. 52% of all ground floor space in Bugis is occupiable, as opposed to only 1% in Punggol. There are a total of 1,363 different occupiable establishments in Bugis and 133 in Punggol, on a similar size 1km² study site, attesting to not only differences in the quantum of occupiable space, but also their diversity. The majority of ground floor space in Punggol is either public green space between buildings, road space or void decks (elevated ground floors) under residential apartment blocks. Punggol’s residential buildings are typically set 15 meters back from the sidewalks, whereas sidewalks in Bugis are generally directly in front of buildings or integrated into facades as arcades or five-foot-ways under shop houses. The close proximity to pedestrian flow makes Bugis more suited to commercial uses that are highly dependent on passing customers. The pie charts in Figure 6 illustrate the differences in the share of ground floor space dedicated to the thematic areas in the two case study sites. The second row of pie charts below show what proportion of the occupiable space in either area had high, medium or low perceived level of accessibility. Bugis not only has more than half of the entire ground plane dedicated to commercial occupiable uses, but the majority of that space (64%) is also highly accessible for anyone. Most of the one percent of occupiable space in Punggol appears...
moderately accessible, the largest share of it contains service establishments where visitors are greeted upon entry.

Figure 6. Top: Proportion of all ground floor space dedicated to public, occupiable and dwelling spaces in Bugis and Punggol case study areas. The inaccessible category denotes spaces, such as construction sites or closed properties that could not be surveyed. Bottom: a breakdown of only the occupiable space in each area respectively, into high, medium and low perceived accessibility according to field surveys.
Figure 7. Comparison of occupiable space maps in Bugis and Punggol case study areas. Yellow designates occupiable, red private spaces.
What are the types of businesses that make up the largest portion of space dedicated to occupiable uses in Bugis? Figure 8 illustrates the breakdown of the observed business categories across all floors in Bugis and on the ground floor separately. The biggest share of occupiable space is dedicated to retail uses (1,769 shops), followed by service providers, food establishments and offices. There are a total of 3,435 business establishments in a 600m radius around the Bugis MRT station, roughly half of which are found on the ground floor and the rest on other floors. 64% of the occupiable spaces in Bugis are retail, service and food establishments that are highly accessible to the public.

3. Pathways
It is equally interesting to look at the nature of the pedestrian pathways that connect each of these establishments with the rest of the district. Only 35% of all publicly accessible pedestrian paths are outdoors (Figure 9), visible to the traditional figure ground maps. 26% are covered – arcades and five-foot-ways – and an entire 37% are inside buildings. There are thus more pedestrian paths indoors than outdoors. The total linear length of all publicly accessible pathways combined is 273.3 linear kilometers – a staggering amount of pedestrian circulation for only less than a square kilometer of land. 4,952 doors to occupiable and private spaces are found along this network.

Figure 8. Left: Proportion establishments in different activity categories across all levels in Bugis. Right. Proportion establishments in different activity categories in only the ground level of Bugis.
Figure 9. Proportion of the total pedestrian path network that is outdoor, covered or indoor in Bugis (left) and Punggol (right).

Figure 10. Comparison of built form and land use indicators between Bugis and Punggol.

Figure 10 provides a comparison of seven metrics in Bugis and Punggol. In Punggol, the cumulative length of the pedestrian network is 77.9 km, most of it outdoors. The Bugis fabric contains over twice as many individual buildings as Punggol, but the average building size is almost three times larger in Punggol. As a result, the Punggol area contains 40% more gross floor area across all buildings than Bugis. We only found 133 businesses in Punggol, significantly less than the 3,435 found in Bugis. The number of doors opening towards the pedestrian network was 434 in Punggol, more than ten times less than in Bugis. Punggol is of course not a commercial hub and it is not located in the city center, where visitors have easy access. Punggol is a high density residential suburb, composed primarily of 16-story residential blocks, entirely planned by the Housing Development Board and built in the course of a few years. The study area contains almost 15,000 dwelling units (Bugis had only 2,500). Assuming Singapore’s average household size of 3.2, the Punggol area should have around 48,000 residents on the surveyed square kilometer of land. The complex urban structure
observed in Bugis, however, is a result of a century of gradual evolution and adaptation. But the achievement of such adaptability cannot be credited to time and location alone – pedestrian friendly small blocks, a careful arrangement of buildings along movement routes and a choice of building typologies that offer suitable space and circulation autonomy to businesses have played an important role in Bugis’ consolidation as a commercial cluster over time.

4. Distribution of occupiable space
The detailed mapping of pedestrian networks and entrances allows us to also explore how the occupiable spaces in the study areas are spatially distributed, and what their relationship is to streets and outdoor passages. Access from occupiable space to the street, to the pedestrian flow and to public transit stops found on streets, can illustrate whether occupiable space surrounds the space of public claim as a thin lining behind facades or goes deep into building interiors far beyond the street. In order to explore this relationship we have measured how far each occupiable space is from its nearest outdoor access path and additionally counted how many other occupiable spaces are passed on the shortest routes to the street. These measurement were performed along the three-dimensional surveyed path network in GIS. We hypothesize that the number of neighboring spaces that share a common indoor access route to the street is indicative of the autonomy of a space. Spaces that do not share access with others can invite visitors or customers without affecting the operations of other businesses and have a higher degree of control over a space (Lynch 1984). Traditional retail strips with perimeter facades that offer direct access from occupiable interior spaces to streets, produce a valuable autonomy and a level of control in each store. Such spaces can easily change uses, allowing their tenants a flexibility to adjust to changing market needs over time. Newer shopping malls and multi-story commercial buildings, however, agglomerate rental spaces around shared lobbies, corridors and other circulation spaces, imposing certain limitations on what uses may occupy each space. We decided to measure the relationship to the nearest outdoor publicly occupiable pathway instead of strictly streets because a number of buildings have elevated ground floors open to the public, five-foot-ways and publicly accessible second- or third-floor walkways, which often serve as primary access routes to occupiable and private spaces along them. These tropical walkways that are integrated into and under buildings serve largely the same purpose as streets, giving public access to businesses, offices and homes.
Figure 1. The pie charts illustrate the proximity of occupiable spaces to the nearest public outdoor walkway in Bugis by percentage bins. The bins size for distance is 5 meters and the bin size for encounters is 1.

Figure 1 describes the overall proximity of occupiable spaces to their nearest public outdoor pathways across all buildings in the Bugis area. We have illustrated this using two different units of measurement – first, metric distance to the nearest public outdoor access path and, second, the number of other occupiable space entrances passed along the way. While the first describes the length of the walk, the second describes the circulation autonomy of space – a lower number of encounters with other businesses between the outdoor arrival point and a business entrance means greater autonomy for the space. The frequency distribution of these metrics shows that around half of occupiable spaces are less than 5m from an outdoor access path and do not need to pass any other spaces to reach that path. Therefore half of all occupiable spaces in Bugis are outward facing, immediately behind building facades. The other half are deeper inside buildings. A roughly equal number of occupiable spaces are 10, 15, 20 until around 50 meters from the street, at which point the frequency drops (the chart lumps all spaces with more than 50m distances to a single combined bin). In terms of encounters with other spaces, the distribution is a bit more skewed towards less encounters – there are more spaces with 2 encounters than 3, more with 3 than 4 and so on. These distance and encounter metrics together suggest that occupiable spaces in Bugis can reach deep into building interiors, but the deeper inside a building a space is does not entail that its access paths is shared with proportionately more neighboring spaces. Spaces can reach further inside but still be separated from the street by only a few encounters with other spaces. This is probably explained by the large establishments found in malls, where one store can span a considerable length of an access corridor, extending the walk to the next store, but not adding any additional entrances in between. The average distance to an outdoor path among all spaces in Bugis is 24.5m and the furthest space found is as far as 160m. The average number of encounters with other occupiable spaces on the way out is 5.7 and the maximum 89.
The overall amount of occupiable space and its relationship with outdoor access points is telling about the character of an area. The numbers clearly reflect the complex structure of commercial space in Bugis. But no urban district is homogenous – the relationship between public and occupiable space differs from building to building and block to block. Building typologies have a particularly important influence on the distribution of occupiable space – different types organize enclosed space and access routes in a different manner (Steadman 1983; 2014). We have already alluded to the extroverted nature of shop houses and the introverted nature of malls in Bugis, but a number of other notable types are also found in the area – office towers, three- to six-story walkups, institutional buildings such as churches and schools, and HDB condenser blocks with three- to four-floor levels of commercial podium on the bottom. Each one of these building types, illustrated in Figure 13, generates a different relationship between occupiable space and outdoor public space.

The condenser blocks are particularly interesting. All circulation spaces that connect store fronts on the commercial podium levels are outdoors and publicly accessible. The type is rather unique to Singapore. It originally came about as a response to the need of housing a large number of residents and small enterprises that were displaced from the city center as part of urban renewal and reconstruction projects in the 60s and 70s. The occupiable commercial space on the podium floors is divided into small units (typically around 4m frontages) that matched the sizes of traditional shophouse businesses and street hawkers they replaced. Three- to four-meter wide outdoor walkways connect all the 200-400 storefronts found in one condenser block. These walkways resemble Team 10’s elevated streets, which give direct access to every shop and simultaneously work as wide interaction spaces (Smithson and Team 10, 1966). Deep floor plates are punctured by courtyards and light wells and residential towers on the top are accessed via stairwells and elevator shafts (Figure 12). The presence of hundreds of dwelling units right above the podium guarantees a steady supply of regular customers to the shops and food courts below.
The chart in Figure 14 compares how far, on average, occupiable spaces are from public outdoor access paths in different building types. While in malls, the average distance from occupiable entrance to an outdoor path is 50m and involves 11 encounters, in condenser blocks a typical occupiable space is entered directly from a public outdoor walkway. Total commercial space in both building types is comparable in size, but in terms of accessibility, the occupiable spaces in the condenser block are more similar to traditional shophouses where businesses are entered directly from the street.
Figure 13. Different building typologies observed in the Bugis area.
Figure 14. Comparison of distances (left) and encounters (right) from occupiable spaces to nearest public outdoor access paths across different building typologies in Bugis.

Other building types fall in between these two extremes. In institutional buildings of our study area, occupiable space is close to the street – less than 10m away and one or no encounters apart from public space. The distance is similar in the 3-6 floor walkups, but accessing occupiable units in the latter typically requires passing two other spaces on the way.

The way in which occupiable space is organized in these building types not only frames a visitor’s experience, but also produces interesting consequences on the types of businesses found in different buildings and floors. The open condenser block and the enclosed mall both accommodate several hundred stores. Figure 15 compares the average store mix on four levels in these two buildings types in Bugis. While in malls, a similar mix of store and service are found on all four levels with slightly variable proportions, in HDB condenser blocks commercial tenants vary in an interesting way as one proceeds further upstairs. Retail, service and food businesses dominate the ground floors close to the pedestrian flow, but spaces on the upper floors include a significant number of establishments that are institutional, religious or educational. Such uses are rare in malls. This difference in the store mix on the upper levels is partly explained by difference in the spatial structure of the two building types. While store fronts in condenser blocks are entered directly from outside in a network of elevated streets and stairs, mall customers are brought upstairs on automated escalators and elevators in an air-conditioned environment. In condensers, the upper floors are harder to reach and out of sight, while the introverted lobby of a mall is usually designed to facilitate direct visual sightlines to stores on all levels. It thus appears that a principle of transportation economy plays out on the open access paths of the condenser block, with upper spaces getting less accessibility, lower rents and attracting enterprises that would otherwise not be able to afford comparable locations in malls. This vertical accessibility differential helps establish a more varied tenant mix and contributes to the diverse character of the area. Informal conversations with shop owners on the ground and the top levels of condenser blocks revealed that rents can
vary as much as ten times between the two. The tenant mix is also likely to be affected by the management differences of the two commercial typologies – mall owners typically orchestrate their tenant mix carefully, so as to maximize profits for the mall as a whole. HDB does not orchestrate its commercial tenants in a comparable way.

**Figure 15.** Comparison of average store mix on four floors in open HDB condenser blocks and enclosed shopping malls in the Bugis area.

### 5. Conclusion

The amount of space owned for dwelling or working in a city by a typical individual forms a very small fraction of the city’s total building stock. Much of the experience of a city is not framed by the spaces one individually controls, but rather by the public spaces – streets, squares, parks or transit stations – and the privately owned occupiable spaces that accommodate businesses, services, amenities that one can access. The availability of these occupiable spaces for different needs form a critical part of the utility of a city to different individuals. A variation in such amenities as schools, stores, restaurants, libraries, museums and other attractions is increasingly shaping the choice of one city over another among a mobile population. The distribution of a city’s amenities also varies widely within a city and
constitutes an important part of household and employment location choices and shapes a city's planning and policy needs. Addressing urban inequality, for instance, depends in part on addressing accessibility to occupiable spaces and the services they contain. These occupiable spaces are typically lacking from city maps, though Google, for instance, has recently started including some building interiors in their online maps (Google 2014).

In this study we have investigated how much occupiable space two different districts of Singapore offer to their patrons. The contrasting nature of urban forms in Bugis and Punggol, and the processes that have led to these forms, allowed the research to explore occupiable space in both centrally controlled and distributed decision-making environments. We drew an equal-size 10-minute walking radius along the street network around an MRT station in both areas and documented all their occupiable spaces, doors, and businesses along publicly accessible pedestrian routes. The documentation sought to produce maps and data that lend themselves both to qualitative plan analysis that has a long history among architects, and newer quantitative spatial analysis techniques that rely on computation. An analysis of the areas revealed that the quantum, character and spatial distribution of occupiable space in the two areas differs considerably. Punggol, a high-density residential suburb, has very little occupiable space to offer. This is explained by its remote location, recent completion, as well as its modernist site planning where building facades are removed from streets and ground floors not designed for commerce. In Bugis, almost all building ground floors are occupiable, accommodating thousands of retail, food and service establishments. But occupiable space continuous well beyond the ground plane, deep and high into building interiors. While about half of the occupiable spaces are immediately accessible from outdoors, the other half depend on shared indoor circulation routes and lobbies. A major influence on how spaces are accessed is attributable to building types. Introverted malls, for instance, can accommodate hundreds of businesses around shared indoor circulation spaces while open condenser blocks achieve the same density by maintaining direct exterior access to each storefront. Variation in accessibility appears to affect the character and mix of businesses at different locations. Less accessible venue tend to have lower rents and attract businesses with less financial means. The structure of circulation paths and occupiable spaces thus suggest that architecture and urban design can be shaped strategically to incentivize desired activity patterns.

In the course of this study we have largely treated occupiable space as built space that is privately managed and accessible to the general public. It would be interesting to develop a more nuanced depiction of the spatial claims of various demographic groups that constitute the general public in future research. The physical abilities for spatial access as well as the types of destinations required can differ between the elderly and the young for instance.
Different race, class and gender groups not only require a different set of amenities in a city, but also face a different level of access to occupiable space. A space that appears highly occupiable to a Chinese Singaporeans, for instance, might feel inaccessible to Southern Asians or Europeans, and vice versa. A more nuanced categorization and mapping of occupiable space was beyond the scope of the present study, but could form a basis for future investigations of the elastic public realm.

Occupiable spaces play an immense role in fulfilling the functions of traditional public and private space today – as places to socialize, play, eat, work, exchange and consume. This trend is growing especially fast in the rapidly urbanizing cities where the limited means of the public sectors to offer quality urban environments has created an opportunity for private developers to attract the new consumer class to air-conditioned and modern shopping and leisure complexes that offer refuge from messy traffic, noise and heat. A recent article published in The Economist describes the consumption trends in the second tiers cities of China (The Economist 2014):

“Deng Hong’s ambitions, according to a Chinese newspaper, was to build a city inside a single building; a ‘temperature-controlled paradise’. Last September his dream edifice, the New Century Global Centre, formally opened in the south-western city of Chengdu. China’s official media call it the world’s largest building. Its centrepiece is a shopping mall of such arresting dimensions that many visitors pause on arrival to take souvenir photographs. It boasts a 300-metre indoor beach, a skating rink and an IMAX cinema. The Chinese often say that theirs is a country of too many people and too little land. The cavernous Global Centre building begs to differ.”

The trend of building ‘cities’ within buildings or superblocks is, among other things, driven by the growing access to private capital that enables developers to build ever greater centers for consumption. The vital importance that privately controlled occupiable space has on our perception of urban environments and on our interactions with the city at large, makes research on this subject more important than ever before. There is reason to believe that Nolli’s emphasis of public space on streets, squares and religious courtyards reflects the dominant role that outdoor space played in accommodating major social activities in Rome of his time. That is clearly not the case anymore. The private sectors plays as strong a role as the state and the church of Nolli’s time combined in servicing the ranging needs of the urban population today. Private spaces of consumption and leisure are on the rise worldwide, but how these spaces will connect with and extend the public realm and endure changing demands over time, remains an open question. Far from dichotomous, the distribution of privately owned space
in a city is shaped by public infrastructure provisions as well as evolving public tastes and expectations. Likewise, the quality of the public realm depends deeply on the flexible boundaries of private space. These entangled spatial dynamics require a better understanding, and quite possibly, public oversight.

References


