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The Mixed-Use Supertall and the Hybridization of Program

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Abstract

Increasingly, mixed-use, multi-program complexes are emerging as the standard development model around the world. As their prominence grows, these projects are becoming increasingly complex. Program adjacencies are ever more intertwined as developers (and the architects who support them) are becoming more comfortable blurring the traditional boundaries between office, retail, residential and hospitality. This article discusses a second generation of mixed-use projects that embrace this hybridization, honing in on supertall architecture, their hybrid program offerings, and innovative sky lobbies. It concludes that programmatic advancements will continue to expand and find integration within single structures, both repositioned and built from the ground up.

Keywords: Mixed-use development, Hybrid programs, Supertall towers, Workplace innovation



Figure 1. Hong Kong skyline.

1. The Evolution of Mixed-Use Development

Influenced by resource scarcity, urban migration, and economic competition, demands on urban buildings and their immediate environments are steadily growing. In densifying cities around the world, mixed-use development (the physical integration of residential, office, retail, cultural and transportation programs within a single structure or neighborhood) has emerged as a tool to address issues of density and sustainability (Fig. 1).

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The advancements are profound. Office lobbies now look like coffee shops. Restaurant services are expanding beyond the realm of traditional food and beverage, offer-

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Figure 2. Nagoya Station Phase 1 and 2.

ing the services of hotels. Now, hotels specifically cater to people who want to connect to their workplaces, their lobbies transformed into quasi-office spaces. The integration of retail program and transportation interchanges is seamless, and the lines between previously not-for-profit cultural programs and their commercial counterparts are now nearly non-existent (Fig. 2).

The future of mixed-use development will see greater blending of these spaces in order to attract, keep and inspire visitors. The desire to driving footfall and spur economic activity within large real estate projects will demand the fusuion of traditional program into a continuous collection of related uses. KPF's Hudson Yards project in New York leads the way by showing how retail, office and residential uses can link directly to park and cultural destinations to provide a seamless, mixed-use experience (Fig. 3).

2. The Evolution of Mixed-Use in Supertall Towers

We have observed similar trends in the evolution of supertall tower designs around the world. Beginning with KPF's work for Mori Building on the Shanghai World Financial Center (SWFC), drawing on our mixed-use ideas executed at Roppongi Hills, Tokyo translated to the creation of a mixed-use supertall tower that included office, retail, hotel and observation program in a single sculpted form. The outcome revolutionized what was feasible for supertall development. Similar to our design for Roppongi Hills, the 380,000 sm SWFC tower laminated discrete programs on top of one another, facilitating 24-hour life within a single structure.

Simple in form, the tower's shape evoked its internal, programmatic needs. The base of the tower offers large floorplates for both lifting efficiency and office usability. Above the office space, the tower tapers to host smaller hotel floors. The top of the tower with the smallest floorplates houses the hotel public space and observation floors. With two arcs intersecting its square prism, the tower hides its vertical city behind a uniform curtain wall from all but the keenest passerby.

Other supertall towers followed suit with increasing programmatic complexity but formally consistent massing. The neighboring Shanghai Tower, built a decade later, is even more expressive yet also hides its programmatic complexity behind a uniform facade. Our International Commerce Centre (ICC) tower in Hong Kong advanced the relatively simple programmatic stacking of its all-office twin across the harbor, International Finance Centre (IFC), within a rational structure, gently sloping at its base to welcome its surroundings. In Guangzhou and Seoul, we have recently completed two towers that stretch the innovative of the typology even further within novel yet elegant forms.

Guangzhou's CTF Finance Centre stacks hotel, residential and office program within 530 m tall tower, incorpor-



Figure 3. Hudson Yards Retail Interior.

ating outdoor space in each program and at many levels of the tower (Fig. 4). An emphasis on program instructs CTF's distinctive form while maintaining dialogue with the city's architectural history. With four main transition points, the tower's vertical massing steps to accommodate the changing floor plate sizes necessary for each type of space resulting in chiseled setbacks. Referencing Chinese pottery, its terracotta façade evokes the bright white lines of its neighboring landmarks, the Guangzhou West and Canton Towers, with a shining finish that performs a crescendo for the city skyline.

The iconic Lotte Tower, in Seoul, is even more complex (Fig. 5). Standing 555 meters and 123 stories tall, the tower functions as a vertical city. Stacked programs of retail, office, officetel, and luxury hotel comprise the bulk of its space, with the ten top floors earmarked for extensive public use and entertainment including a glass observation deck and rooftop café. At ground level, the tower connects to a retail and cultural complex, Lotte World Mall and Concert Hall. Its layout promotes fluid circulation and constant visual and physical connections between programs. The complex introduces a paradigm shift to the experience of Seoul's urban density.

3. Emerging Hybrid Program Supertall Towers

Recently, though, a new breed of tower is emerging that



Figure 4. Aerial View of CTF Finance Centre Terraces.

more closely matches the advances made in the methodology of mixed-use complexes. These supertall towers house progressively blended spaces with forms that reflect – rather than mask – their diverse programs. In fact, a recent KPF design effort provides convincing evidence that the future of the supertall will programmatic innovations, not structural or technological ones. (Fig. 6).

There are a few burgeoning themes worth highlighting: the integration of office lobbies and workspaces with retail; towers with multiple office lobbies and shared spaces; retail and restaurants within tower stacking; the blending of hotel and office spaces; and the expression of these complicated arrangements on the form and structure of towers.

4. Office Sky Lobbies and Integration into Retail

As mixed-use and office towers increasingly absorb retail program at their bases, lobbies are moving off the ground. At Hysan Tower in Hong Kong, KPF placed the office lobby above the retail podium in order to drive high level retail and release valuable ground floor area (Fig. 7). The office lobby and retail areas are connected, helping direct traffic from one to the other, and yet they remain two separate spaces.

More recently, though, we have designed a sky lobby for a project that fully flows into the upper levels of retail, with little-to-no delineation between programs. Retail stores and cafés flow into the lobby level. Office visitors enter the upper level lobby through the retail experience rather than avoid it. Materially, the two spaces reflect one another, lending to their connection. (Fig. 8).

5. Dual Lobbies and Sharing Spaces

In addition to bridging relationships between ground and upper level amenities, lobbies are also beginning to resemble co-working spaces. At CTF Finance Centre, our sky lobby "library" looks like a shared workspace — with tables, bookcases, computer stands and breakout spaces — more than a traditional, stone-clad lobby (Fig. 9).

Furthermore, lobby spaces are continuing to accommodate the needs of actual co-working tenants into their programmatic layout. These co-working tenants are afforded the same prominence of traditional anchor office tenants,

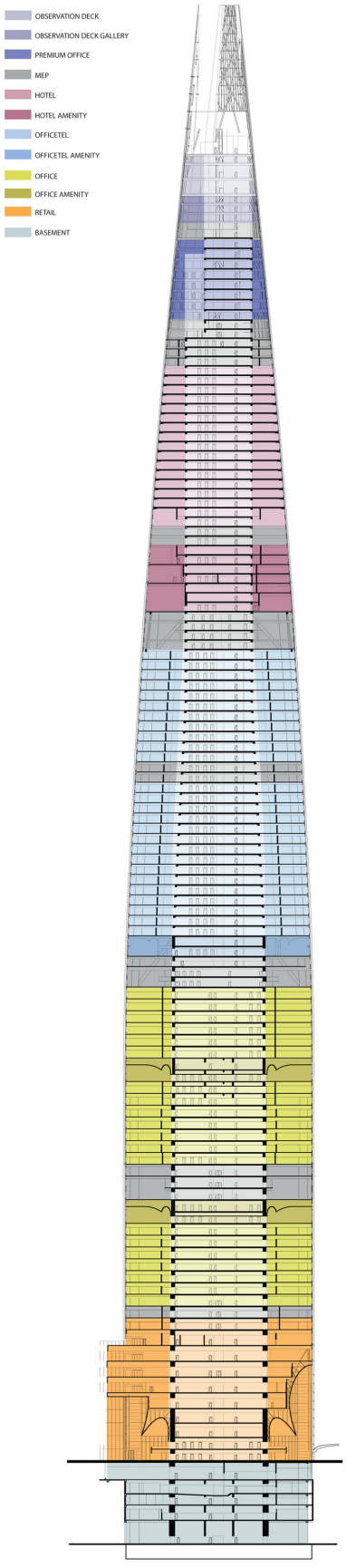


Figure 5. Programmatic Section of Lotte Tower.



Figure 6. Elevated Sky Lobby View, Confidential Design Scheme.



Figure 7. Exterior View, Hysan Place.



Figure 8. Elevated Sky Lobby View, Confidential Design Scheme.



Figure 9. View of Sky Lobby, CTF Finance Centre, Guangzhou.

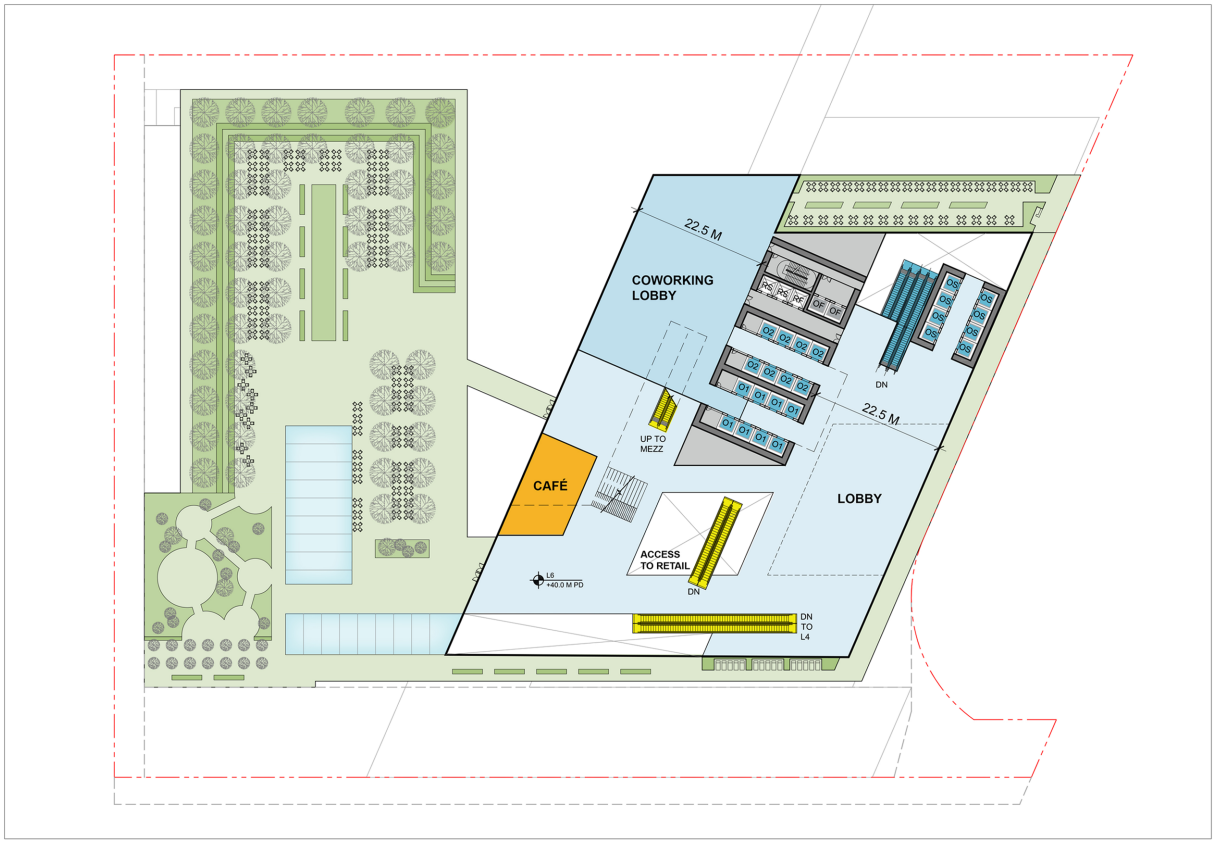


Figure 10. Plan of Sky Lobby, Confidential Design Scheme.

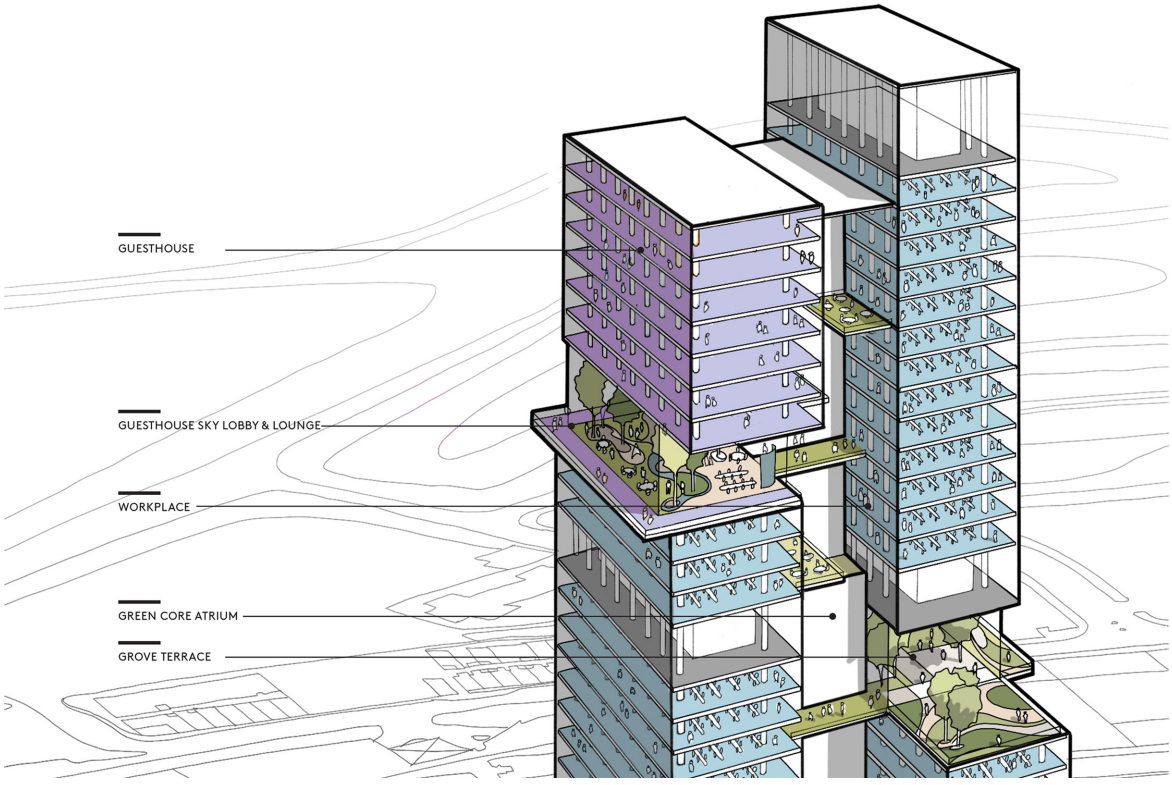


Figure 11. Upper Level Public Space, Confidential Design Scheme.

with standalone lobbies that spill into café spaces, outdoor terraces, and sometimes connects vertically to their own subtenants – a fitness center or farm-to-table restaurant. In a recent competition, we designed a lobby space with a series of escalators that run vertically from the lobby through the co-working tenant space as one continuous "sharing" experience (Fig. 10).

6. Retail and Hotel Blended with Workspace

Progressively, retail and restaurant programs are finding their way into the upper levels of supertall towers. What began as amenities for hotels in towers (as in our Park Hyatt Shanghai or Ritz Carlton Hong Kong) are becoming standalone destinations for retail and dining. This destination retail mixes with office program to create more vibrant, lively programmatic adjacencies (Fig. 9). We see hotel lobbies in supertall towers that connect to office floors and co-working spaces at record heights (Fig. 10).

7. Conclusion

The programmatic advancements in supertall design outlined here are each incremental. Taken together, however, they represent a sea change in the way developers and their designers are approaching the functional planning of these iconic structures. Moving forward, we will see supertall towers that more completely integrate and blend user needs. Existing towers will be repositioned; new towers will be built. The dream of the supertall as a "city within a building" will be closer to its full realization.