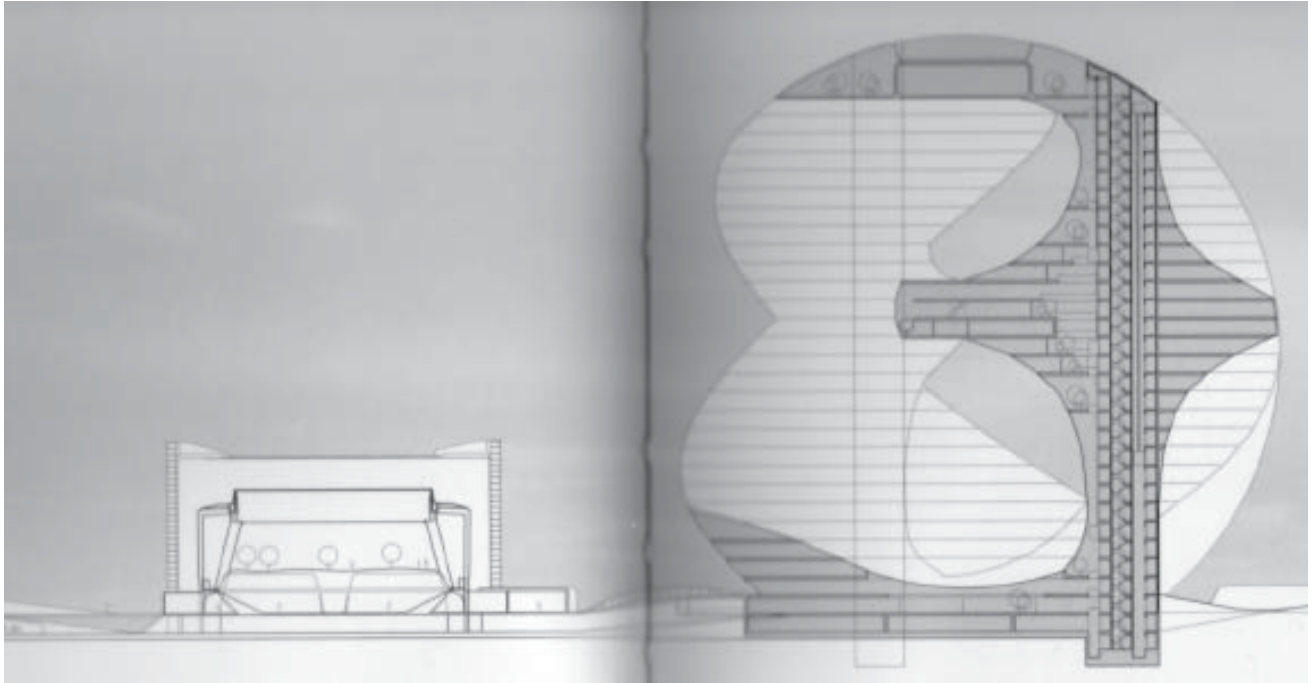


introduction

vertical mass: neither one nor many

sS 2011: Universität für Angewandte Kunst, Wien, o. Univ. Prof. Greg Lynn
assistants: Kristy Balliet, Justin Diles, Johannes Miecke, Martin Mirero, Guvenc Ozel



ECB Competition, United Architects *section

This semester we will explore some of the spatial qualities and effects from last term's Hypostyle Hall semester at a larger scale. We will work in teams on a **large scale urban development** that is an alternative to a collection of towers (of any type) resting on a retail and public plinth. The introduction lecture will review the canonical examples of retail plinths and collections of towers as well as some alternatives. We are interested in an alternative approach which is massive, dense and not a collection of vertical columns (connected or not). There are some very important examples of this type of massing and urbanism that forms very large scale interior and exterior voids at the city and skyline scale. Like the Hypostyle Hall, where the spaces are more important than the figures of the columns, you should propose **skyline voids** and spaces within masses. To make the voids you will need masses but the emphasis should be on the urban void and not a tower of any kind.

The only thing you can not do is towers. Towers are often thought of as giant columns. We just finished an entire semester where we showed how columns need not be vertical figures but how they can form space between themselves in a variety of ways. So do not go backwards and make towers, fields of towers, bundled towers, kissing towers, etc... While what Norman Foster called "kissing towers" is a relevant approach for tall buildings, Greg is personally bored by it after a personal involvement with it for over 25 years. United Architects pursued vertical density by two means during the last ten years; first by bundled towers and second with spiraling and rotating mass. This semester we are more interested in the later approach, however there should be no woven tower schemes.

Finally, if anyone could interpret your schemes as a tower or a collection of towers you will have failed the challenge. **If it is a mass or a block you succeed.**

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ECB Competition, United Architects



Interlace, OMA



The World, OMA



Max Reinhardt Haus, Eisenman

DESIGN PRECEDENTS

URBAN VOIDS & SPACES

ECB, Frankfurt / United Architects / 2003 / Height: 100m
 Star Network, Netherlands / United Architects / 2004
 The World, UAE / OMA / 2007
 Interlace, Singapore / OMA / 2009-present
 Max Reinhardt Haus, Berlin / Peter Eisenman / 1992-93 / Height: 128m
 CCTV, Beijing / OMA / 2008 / 234m

VERTICAL VOLUMES

SKYCOURTS

WTC Competition, NYC / United Architects / 2002 / Height: 494m

SKY LOBBIES + INSTITUTIONAL VOLUMES

WTC Competition, NYC / United Architects / 2002 / Height: 494m
 Time Warner Center, NYC / David Childs (SOM) / 2004 / Height: 228m

LARGE INTERIOR VOIDS

ECB, Frankfurt / Coop Himmelb(l)au / 2003-present / Height: 185m
 National Commercial Bank, Jeddah / Gordon Bunshaft (SOM) / 1977-1984 / Height: 126m
 Marriot Marquis Hotel, Atlanta / John Portman / 1985 / Height: 143m
 Luxor, Las Vegas / Veldon Simpson

DIFFERENTIAL CIRCULATION

Togok (XL Towers), Seoul / OMA / 1996-2002 / Height: 440m
 Museum an de Stroom, Antwerp / Neutelings Riedijk / 2010 / Height: TBD
 CCTV, Beijing / OMA / 2008 / 234m

VERTICAL LANDSCAPE / OUTDOOR SPACE

Interlace, Singapore / OMA / 2009-present
 Hitechniaga HQ / Ken Yeang / 1995 / Height: 140m
 One Madison Avenue / Daniel Libeskind / 2008
 Horton Plaza, San Diego / Jon Jerde / 1985

INTEGRATED GROUND CONNECTION

Toronto Dominion Center, Toronto / Mies van der Rohe / 1969 / 223m
 AT&T (Sony) Building, NYC / Philip Johnson / 1984 / Height: 197m
 Citigroup Center, NYC / Hugh Stubbins / 1977 / 279m

first task

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CCTV, OMA Massing Studies

FIRST TASK

This semester we will design a large-scale urban development, a mixed-use vertical complex that emphasizes the following core design issues:

Urban Voids & Spaces

- apertures and holes at the skyline scale

Programmatic Multiplicity

- Multiple, distinct activities spatially and functionally related to one another in a single design

Vertical Volumes

- Sky Lobbies, Elevated Institutional, Retail and Hospitality Spaces

Landscape / Outdoor Space

- landscape and outdoor spaces in a vertical context

Differential Circulation

- circulating horizontally and diagonally as well as vertically

Integrated Ground Connection

- vertical volumes that move from the ground through the first 5-10 stories of the building
- a ground connection that moves beyond the plinth with protruding towers typology

Part One (Weeks 1-3):

Create 5-10 massing schemes with physical models that incorporate the above design issues. The models should locate the major elements of the program and describe how they relate to one another spatially as well as geometrically. Physical study models should be made from wood or foam and be of high quality, meaning that they can be shown for your midterm review. (Digital models can and should be used to assist with the design of the physical study models.) Models should be at 1:500, approximately 25 cm tall.

Part Two (Weeks 4-5)

The urban void(s)/space(s) and massing ideas studied in your first models cannot be separated from the following design considerations critical to the vertical mixed-use complex:

Mega-scale Structure

- a structural concept that works at the building scale (not the cladding scale)

Circulation Systems

- for people that relate to spatial sequences experienced at multiple speeds and levels
- for services and mechanical

Building as Power Plant

- energy strategies for natural ventilation and energy generation

Skin as Membrane and Facade

- building envelope as environmental membrane that is integrated with the massing and avoids structural expressionism

Deliverables (Weeks 6):

Based on your most successful massing strategy, develop a design that incorporates and synthesizes the concerns above and goes into more detail. This design will be presented to Greg on April 6th. (To Be Confirmed) For this presentation you will need the following:

- Massing Models: Original wood or foam physical massing models plus new model(s) that begin to synthesize the concerns outlined above.
- Color coded sections: Sections showing functional elements & their arrangement
- Vignettes (Hidden-line, Model Photos, etc.): Urbanism and vertical spatial experience: 6-10 user scenarios with storyboard of perspective vignettes from digital models or physical models.

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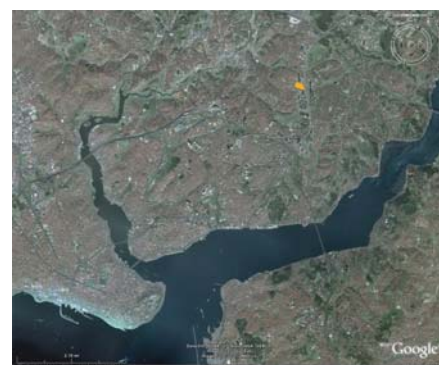
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The program is a multi-use complex, comprising of residential, commercial, cultural components. The complex should be within 25-30 stories and approximately 130m High. As opposed to the canonical plinth and tower organization, we are interested multiple courts and giant courtyards.

PROGRAM	GROSS AREA
Residential:	
Hotel Tenant	30,000 m ²
248 Suites and Rooms	
Rooms	25-40m ²
Suites	75-250m ²
Event Space/ Restaurant/ Amenities *Indoor &/ or Outdoor Pool	
Lobby and/or Sky Lobbies	1000 m ²
 Condominium	 30,000 m ²
150 Apartments	100-300m ²
Amenities *Indoor &/ or Outdoor Pool	
Lobby and/or Sky Lobbies	1000m ²
subTotal	60,000 m²
 Television Studios:	
Studios /Production	10,000 m ²
News *Interior and Exterior Focus	
Lobby and/or Sky Lobbies	
 Music Theater	
Music Hall No.1	5,000m ²
Experimental Hall No.2	2,000m ²
Back of House	7,000m ²
Music School	6,000m ²
Lobby/Patron	5,000m ²
 Retail/ Food & Beverage / Entertainment	
40 stores (mixed scaled big box-boutique)	30,000 m ²
2 restaurants, 2 bars, 1 bakery, 1 cafe, etc....	
Lobby and/or Sky Lobbies	
 Office (class A)	
Lobby and/or Sky Lobbies	60,000 m ²
 Atrium	
	3,000 m ²
 Transportation Hub	
+/- 600 Parking Spaces, Bus/Subway station	12,000 m ²
TOTAL:	200,000 m²
 Outdoor Rooms/Spaces:	
Courtyards/ Roof Gardens/ Plazas: MANY	
Pool (s) Indoor/Outdoor (2000m ²), Courts (Tennis, Basketball, Racquetball, etc...)	

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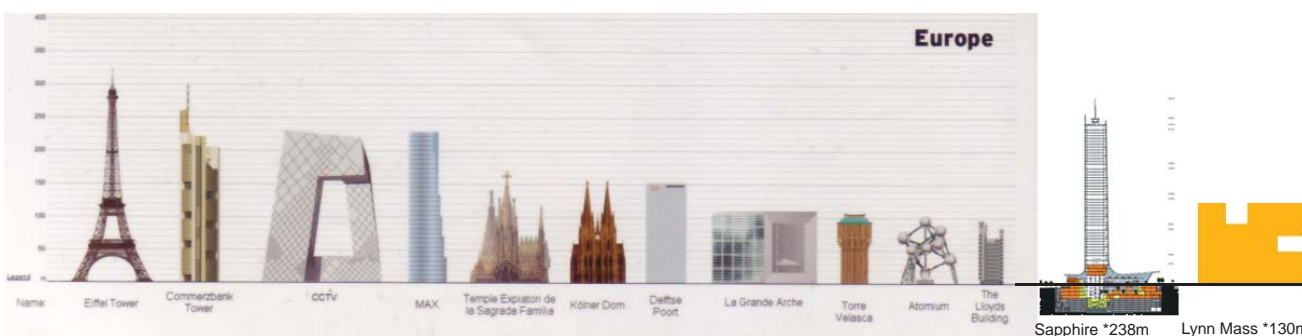


The site is in 4. Levent, this is the main high rise zone of Istanbul with adjacent office buildings and headquarters of banks and corporations. There are also a few mixed use projects, such as The Sapphire, which is the tallest building in Europe and adjacent to the site.

4. Levent, Istanbul Turkey

Site Area: **59,400 m²**
 Location: **41° 5'1.68"N**
29° 0'23.72"E

site dimensions (approximate) 330 m x 180m



Sapphire *238m Lynn Mass *130m

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March	01.03.11	tu	2-6	Semester Kick Off and *Vertical Mass Lecture		
	03.03.11	th	2-6	*Program/Massing Lecture // Groups Finalized		
	08.03.11	tu	2-6	Desk Crits	(Massing Strategies)	
	10.03.11	th	2-6	Desk Crits	(Open House)	
	11.03.11-17.03.11 Study Trip Istanbul					
	17.03.11	tu	7pm	Desk Crits	(Sliver Lecture: Aaron Betsky)	
	22.03.11	tu	2-6	Studio Pin Up (Part I)	(Sliver Lecture: Peter Noever)	
	24.03.11	th	2-6	Desk Crits		
	29.03.11	tu	2-6	Desk Crits		
	31.03.11	th	2-6	Desk Crits		
April	05.04.11	tu	2-6	Desk Crits	(Sliver Lecture: Patrik Schumacher)	
	06.04.11	we			(Sliver Lecture: Zaha Hadid)	
	07.04.11	th	2-6	Review (Part II w/ Greg)	(Sliver Lecture: Peter Cook)	
	08.03.11-11.03.11 Rendering Workshop w/ Steven Ma					
	12.04.11	tu	2-6	Desk Crits		
	14.04.11	th	2-6	Desk Crits	(Sliver Lecture: Hitoshi Abe)	
18.04.11-01.05.11 Spring Break						
May	03.05.11	tu	2-6	Desk Crits	(Sliver Lecture: Jeff Kipnis)	
	05.05.11	th	2-6	Desk Crits	(Sliver Lecture: Nicolai Ourousoff)	
	10.05.11	tu	2-6	Desk Crits	(Sliver Lecture: Gerhard Matzig)	
	11.05.11	we			(Sliver Lecture: Thom Mayne)	
	12.05.11	th	2-6	Desk Crits	(Sliver Lecture: Eric Owen Moss)	
	17.05.11	tu	2-6	Desk Crits	(Sliver Lecture: Winy Maas)	
	19.05.11	th	2-6	Desk Crits	(Sliver Lecture: Marie Harnoncourt)	
	24.05.11	tu	2-6	Mid/Term: Greg	(Sliver Lecture: Greg Lynn)	
	26.05.11	th	2-6	*tentative Desk Crits	(Sliver Lecture: Brennan Buck)	
	31.05.11	tu	2-6	Desk Crits		
June	01.06.11	we			(Sliver Lecture: Brett Steele)	
	02.06.11	th	2-6	Austrian Holiday		
	07.06.11	tu	2-6	Desk Crits	(Sliver Lecture: Hani Rashid)	
	09.06.11	th	2-6	Desk Crits	(Sliver Lecture: Michael Rotondi)	
	14.06.11	tu	2-6	Desk Crits	(Sliver Lecture: Carme Pinos)	
	15.06.11	we			(Sliver Lecture: Wolf D. Prix)	
	16.06.11	th	2-6	Desk Crits		
21.06.11	tu	//	Final Studio Review *tentative			