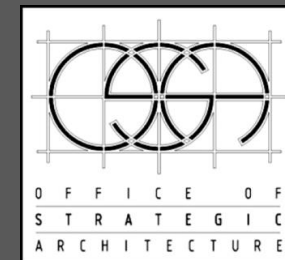


ARCHITECTURE AS ARTEFACT, SOCIALFACT, AND MENTALFACT

The Hypothesis

Eka Swadiansa



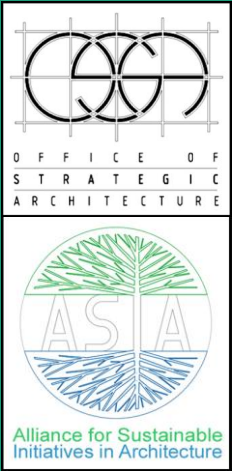
REFRAMING THE IDEAS

Day 3: Static City

- + Static City Manifesto
- + The Group of Three (generated from Goldman Sachs BRIC, N11, and G7)
- + The Group of Three accent (generated from alpha/beta cities)
- + The General Theory of Agglomeration, Degglomeration, and Densitification
- + Framework: From Urban Studies to Urban Architecture
- + The Urban Commuting / Slum Pyramid
- + Case studies for Kyoto, Taichung, and Jakarta

Day 5: Contra Hegemony

- + Current condition in Indonesia
- + Government Blue Print
- + Economic performance of Indonesia
- + State-owned Companies, case studies: Garuda Indonesia, and Pertamina
- + Towards tertiary (mining) industry
- + The BoP Flaw & BoP Trap: *pending*
- + Framework:
- + Micro DIY: SKAK Industries, and fix/IP
- + SME: *pending*
- + Corporation: project 7 Heaven



CONTINUING THE IDEAS

Day 6: Architecture as Artefact, Socialfact, and Mentalfact

- + Framework: the Psychoanalysis of STARchitects
- + ARTEFACT: Surya Universe(c)ity
- + Framework: Olympi(c)ity
- + SOCIALFACT: National Stadium in Tokyo, and Moscow
- + Framework: Chronochaos and Postmodern History Trap
- + MENTALFACT: Medan Merdeka,

on National Library, National Museum, and National Gallery of Indonesia

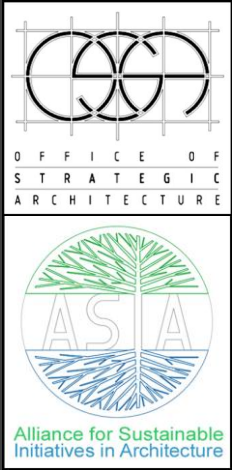
+ The BoP Flaw & BoP Trap: *reframing*

+ Office of Strategic Architecture, and progressive technopreneurship

+ Framework: The History of the Future

+ Framework: The Future of the Past

+ Retrospective Static City: Jakarta Ciliwung Social Housing Project, Kempinski Residence



DAY 5



DAY 6



DAY 3

REGIONAL
PLANNING

STATE
COMPANIES

PUBLIC
ENTEPRISES

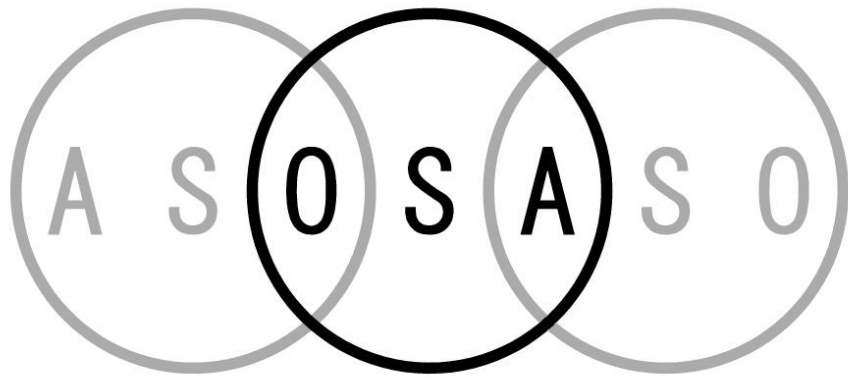
ARTEFACT

SOCIALFACT

MENTALFACT

HISTORY OF
URBANISM

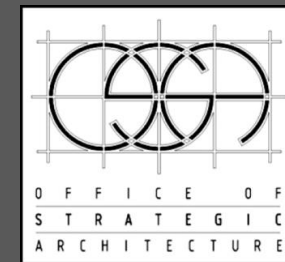
FUTURE OF
URBANISM



ARCHITECTURE AS ARTEFACT

Session 1

Eka Swadiansa



Framework:
The Psychoanalysis of STARchitects

Ego

Id

Super-ego

Ego

FORM + FANTASY

Id

FUNCTION + FINANCE

Super-ego

FORENSIC + FAITH

Ego

FORM + FANTASY

Santiago Calatrava

Id

FUNCTION + FINANCE

Rem Koolhaas / OMA

Super-ego

FORENSIC + FAITH

Tadao Ando

Ego

FORM + FANTASY

Santiago Calatrava

Enterprise

Id

FUNCTION + FINANCE

Rem Koolhaas / OMA

The People

Super-ego

FORENSIC + FAITH

Tadao Ando

Nation State

Ego

FORM + FANTASY

Santiago Calatrava

Enterprise

ARTEFACT

Id

FUNCTION + FINANCE

Rem Koolhaas / OMA

The People

SOCIALFACT

Super-ego

FORENSIC + FAITH

Tadao Ando

Nation State

MENTALFACT

ARTEFACT:
Surya Universe(c)ity

The Milestones:

1993 – Time Olimpiade Fisika Indonesia (TOFI) initiated

1993 – Indonesian first bronze medal on 24th International Physic Olympic

1999 – Indonesian first gold medal on 30th International Physic Olympic

2000 – Asian Physic Olympic initiated

2003 – Indonesia as Asia Champion on 3rd Asian Physic Olympic

2006 – Indonesia as World Champion on 37th International Physic Olympic

2006 – Surya Institute initiated to provide education services in all parts of Indonesia

2009 – Surya Research & Education Center (SURE) initiated as research base

2009 – PT SURE Indonesia initiated as bridging base to the industry

2009 – Surya Institute initiated as non-profit Education School for Indonesian peripheries

2010 – Sekolah Tinggi Keguruan dan Ilmu Pendidikan (STKIP / College) initiated

2013 – Surya University initiated with all programs nationally accredited on 2015



SURYA
UNIVERSITY

The Milestones:

2012 – Office of Strategic Architecture (OSA) & partners entered the national competition to design the Future Campus of SU

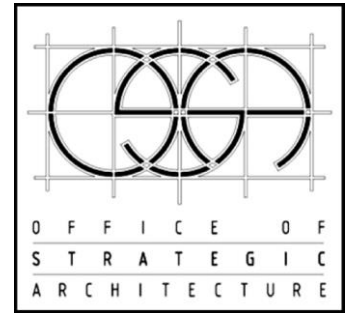
2013 – OSA & partners won 2nd price on the design competition

2014 – OSA principal appointed co director for principal architect for the development project of SU campus, in favor to the unfeasible 1st winning design, left the team at the same year

As August 1st 2016 – OSA principal will resume works at the development project of SU campus as director and principal incharge



SURYA
UNIVERSITY





UNDERSTANDING SURYA GOLDEN RATIO



$$\text{SGR} = \frac{b}{a} = \frac{1+2\sqrt{2}}{1+\sqrt{2}} = 1.59$$

>

$$x_1 : x_2 = \text{SGR}$$

$$x_2 : x_3 = \text{SGR}$$

$$x_3 : x_4 = \text{SGR}$$

$$x_4 : x_5 = \text{SGR}$$

$$x_5 : x_6 = \text{SGR}$$

$$x_6 : x_7 = \text{SGR}$$

$$x_7 : x_8 = \text{SGR}$$

$$x_8 : x_9 = \text{SGR}$$

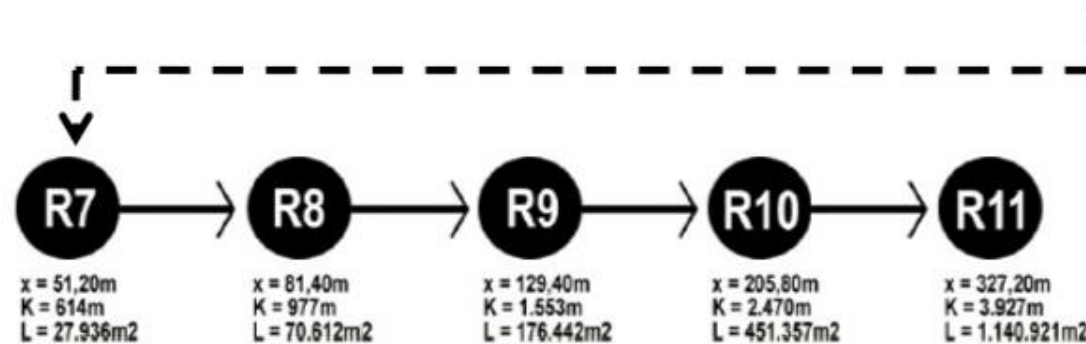
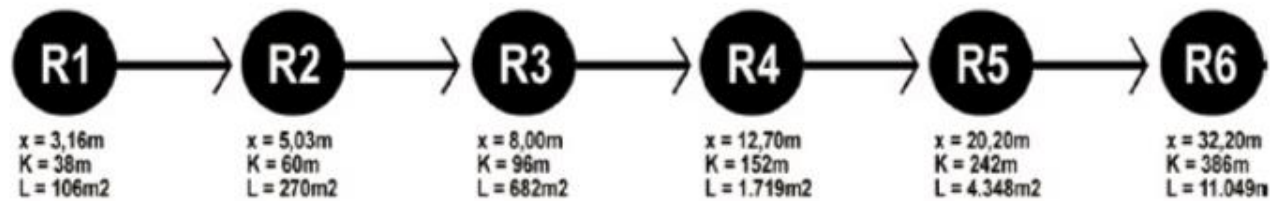
$$x_9 : x_{10} = \text{SGR}$$

$$x_{10} : x_{11} = \text{SGR}$$

Nama Ring	Panjang sisi pendek (x)	Keliling = 12 x	Luas	Tinggi
Ring-1	3,16 m	38 m	106 m ²	10 m
Ring-2	5,03 m	60 m	270 m ²	27 m
Ring-3	x = 8 m	96 m	682 m ²	68 m
Ring-4 (R)	12,7 m	152 m	1.719 m ²	4,81 m (1 lantai)
Ring-5 (Q)	20,2 m	242 m	4.348 m ²	7,65 m (2 lantai)
Ring-6 (P)	32,2 m	386 m	11.049 m ²	12,16 m (3 lantai)
Ring-7 (Center)	91,9 m	1.103 m	90.004 m ²	12,16 m (3 lantai)
Ring-8 (Kampus)	232,3 m	2.788 m	575.239 m ²	12,16 m (3 lantai)

AKURASI

BUILDING SCALE



MASTERPLAN SCALE

PRESISI

UNDERSTANDING SURYA GOLDEN RATIO ON 2 DIMENSIONAL PLANE



Zona Programing

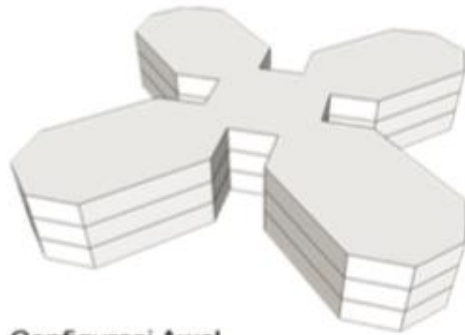


SMART PLANNING

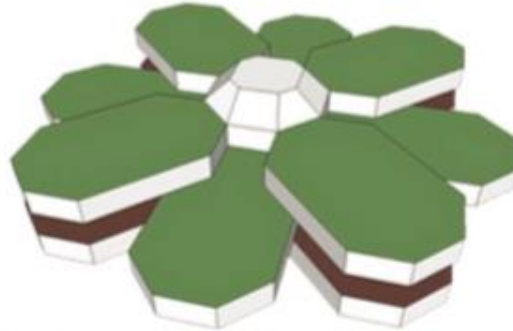
Sebagai sebuah kawasan yang holistic, masterplan Surya University dirancang dengan mengadopsi prinsip "walkable centers" dimana semua zona aktifitas diramu kedalam 3 kluster ring dengan diameter persebaran wilayah kurang dari 1km (hanya 800m bentang). Pembagian ring juga memungkinkan terjadinya "fluid cross-over" antar pilihan moda transportasi publik dan privat. Dengan mengadopsi sistem efficient-planning ini, 60% lahan dari site nantinya dapat digunakan sebagai Lahan Terbuka Hijau (LTH), dengan rincian 20% didalam Outer Ring sebagai Taman Universitas, dan 40% diluar Outer Ring sebagai Surya Forest.



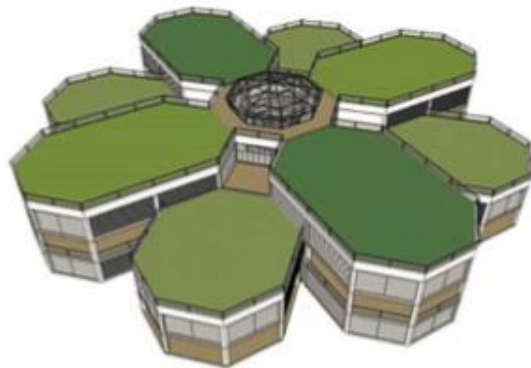




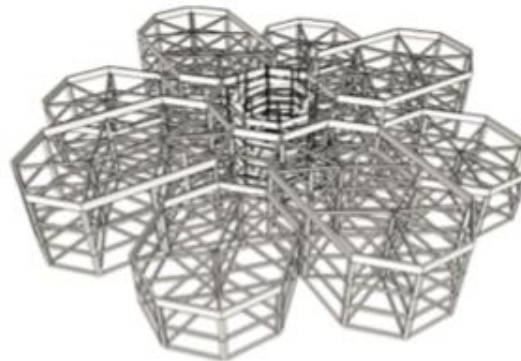
Configurasi Awal



Configurasi Modifikasi



Kulit Bangunan



Struktur Bangunan

INOVATIVE ICONS

Terdapat 2 modifikasi sistem bangunan yang telah dipersiapkan:

1. Research Centers. Dengan mengadopsi C-Octagon 3 lantai yang sama, kami memilih untuk men-twist lapis 2 bangunan 45 derajat untuk menghasilkan jumlah rooftop 2x lebih banyak. Hal ini dilakukan untuk memperbanyak lahan "vertical research garden" (total luasan 28.832 m²).

INOVATIVE ICONS

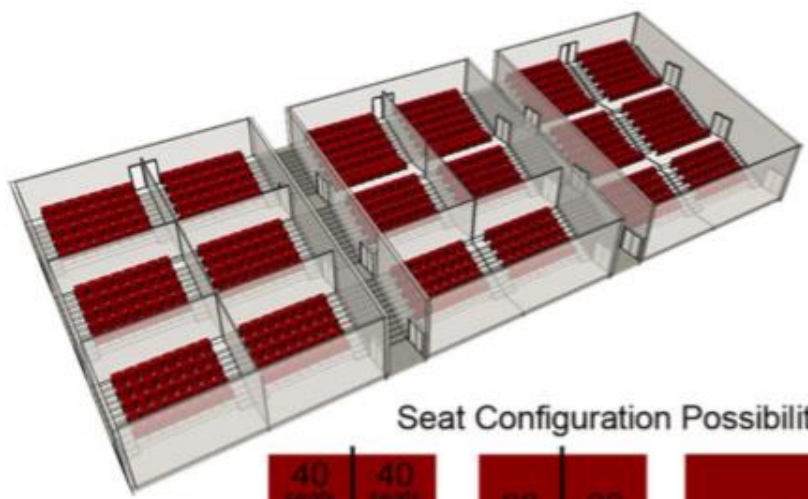
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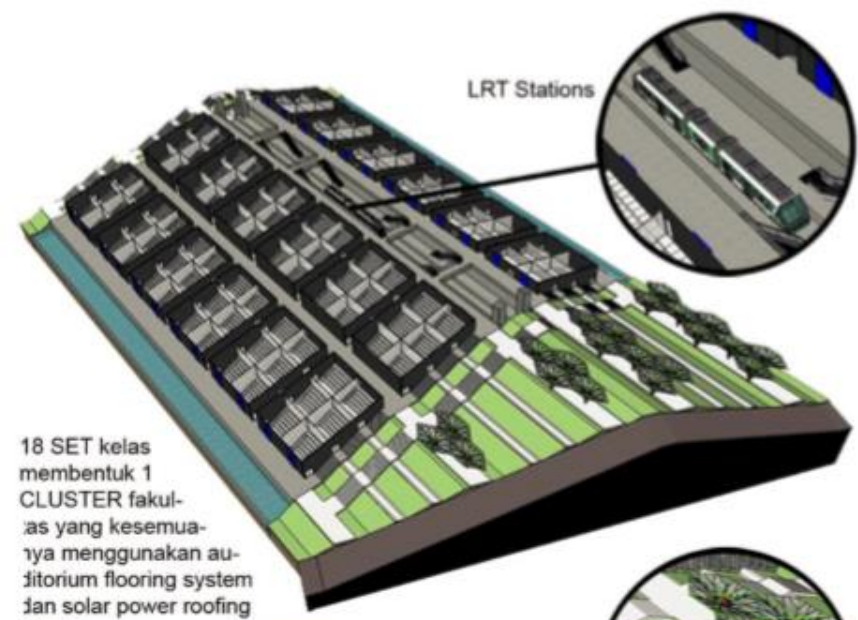
INTELEGENT BUILDINGS

Sebagai bagian dari pengembangan berbasis Smart Planning, efisiensi lahan menjadi suatu hal yang mutlak. Semua Cluster kelas dirancang dengan sistem "auditorium-seatings" sehingga keseluruhan lantai & atap bangunan kelas akan memiliki sloping-gradient. Hal ini memungkinkan pengaplikasian solar power farming dalam skala yang masif tanpa perlu mengorbankan sejenkalpun tanah dalam site. Sementara untuk menambah daya, sistem vertical wind power harvesting bisa juga di instal di atas bangunan Kantor Pusat (Inner Ring) yang memiliki ketinggian rata-rata 2 kali dari bangunan-bangunan lainnya.



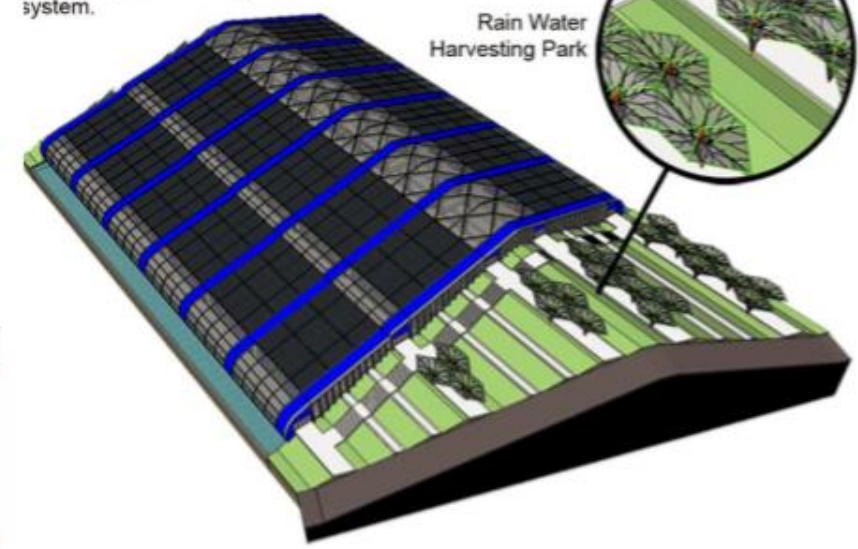
Seat Configuration Possibilities

40 seats	40 seats	96 seats	96 seats	304 seats
40 seats	40 seats	96 seats	96 seats	
40 seats	40 seats	96 seats	96 seats	



LRT Stations

18 SET kelas membentuk 1 CLUSTER fakultas yang kesemuanya menggunakan auditorium flooring system dan solar power roofing system.



Rain Water Harvesting Park



OUTER RING



MIDDLE RING

INNER RING





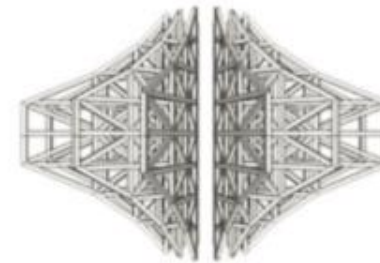
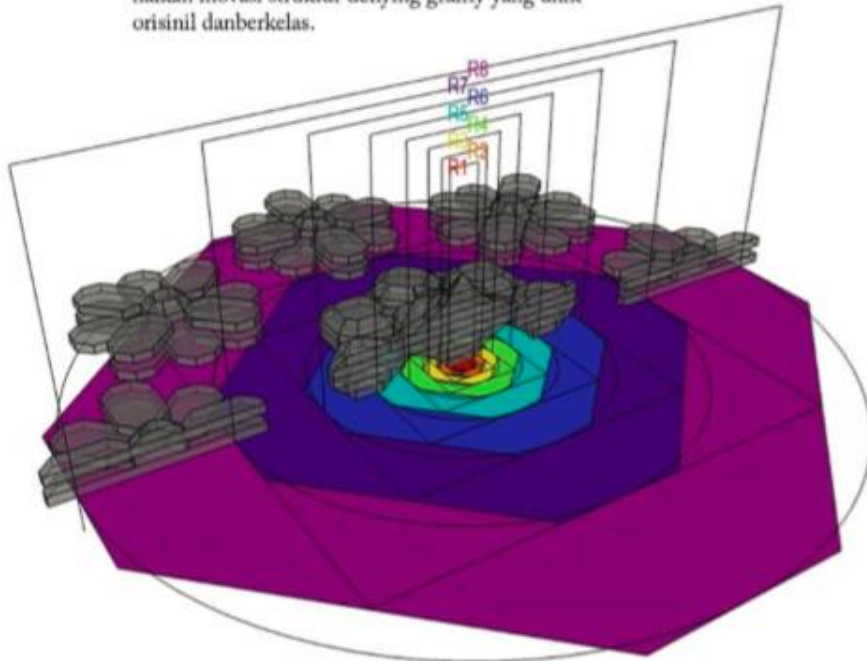
UNDERSTANDING SURYA GOLDEN RATIO ON 3 DIMENSIONAL SPACE



INOVATIVE ICONS

Terdapat 2 modifikasi sistem bangunan yang telah dipersiapkan:

1. Research Centers. Dengan mengadopsi C-Octagon 3 lantai yang sama, kami memilih untuk men-twist lapis 2 bangunan 45 derajat untuk menghasilkan jumlah rooftop 2x lebih banyak. Hal ini dilakukan untuk memperbanyak lahan "vertical research garden" (total luasan 28.832 m2).
2. Gedung Rektorat & Dekanat. Dirancang masih mengadopsi sistem Ring 1-6 yang sama namun dengan konfigurasi berbeda dengan memperkenalkan inovasi struktur defying gravity yang unik orisinal dan berkelas.



Struktur Primer

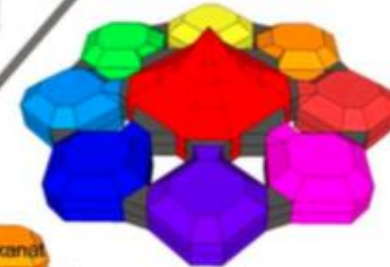


Struktur Sekunder



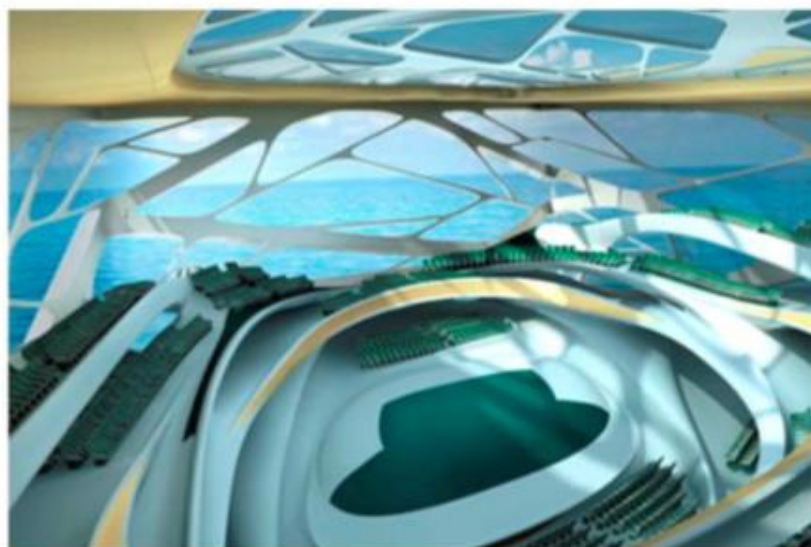
Kulit Bangunan

GEDUNG PUSAT
Web-Truss System



GEDUNG PUSAT
Programming

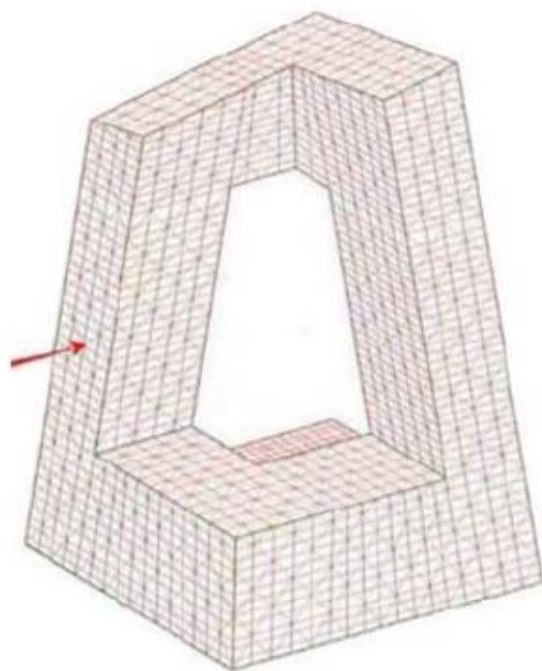




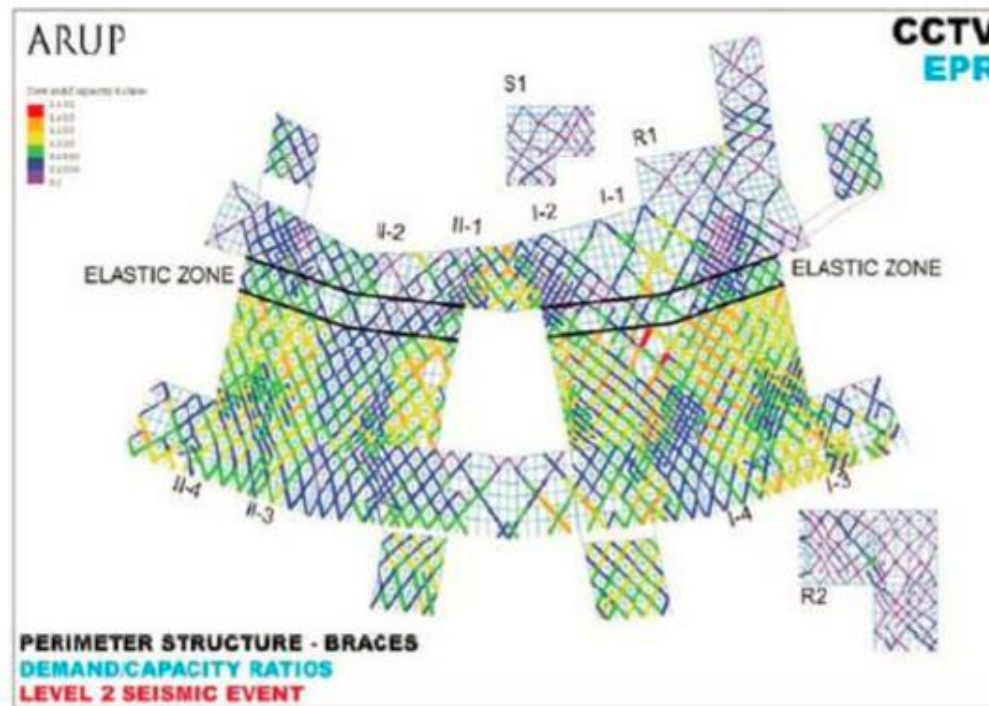
Skin-based building (Zaha Hadid)



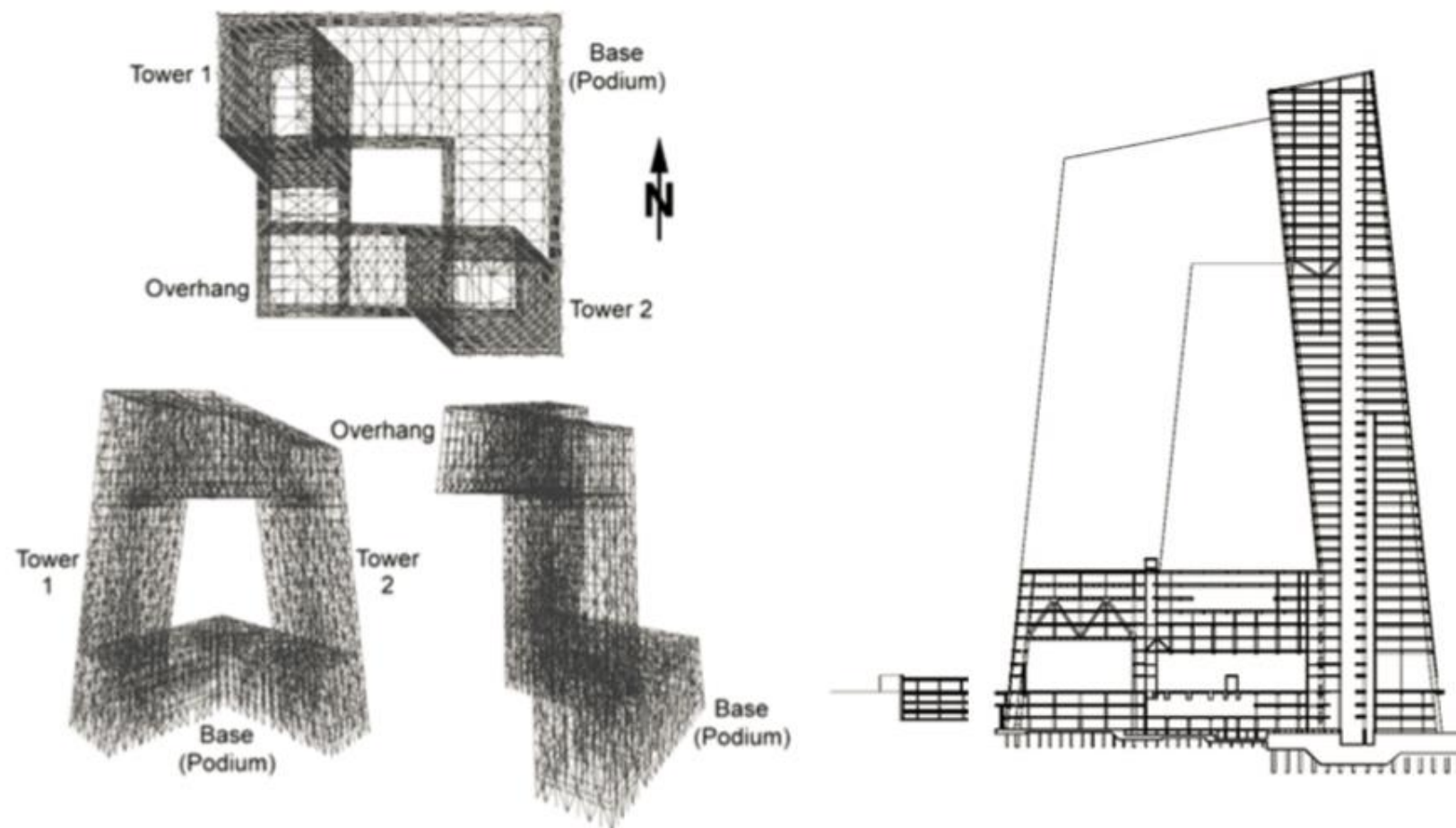
Shell Structure building (OMA)



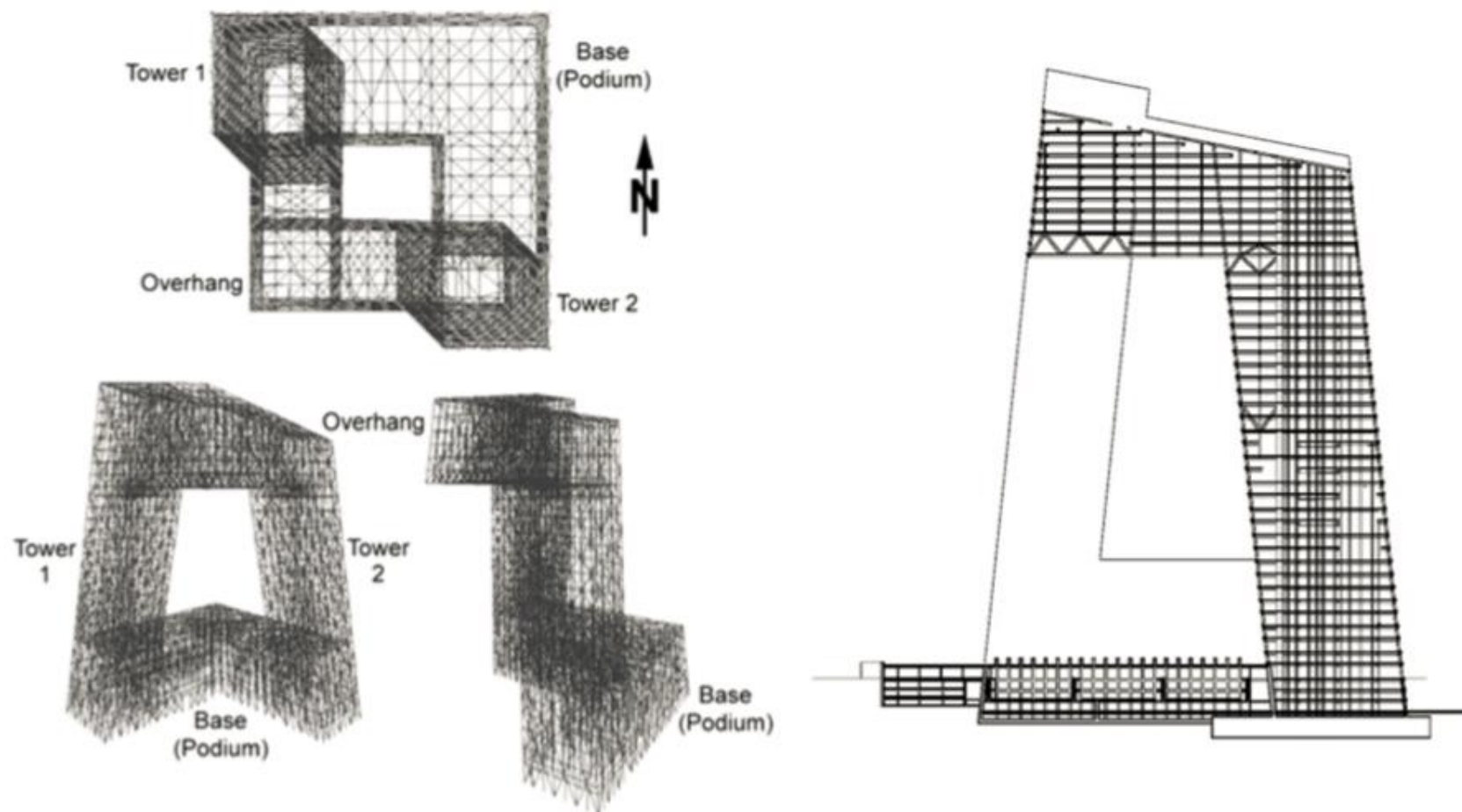
Uniform bracing pattern



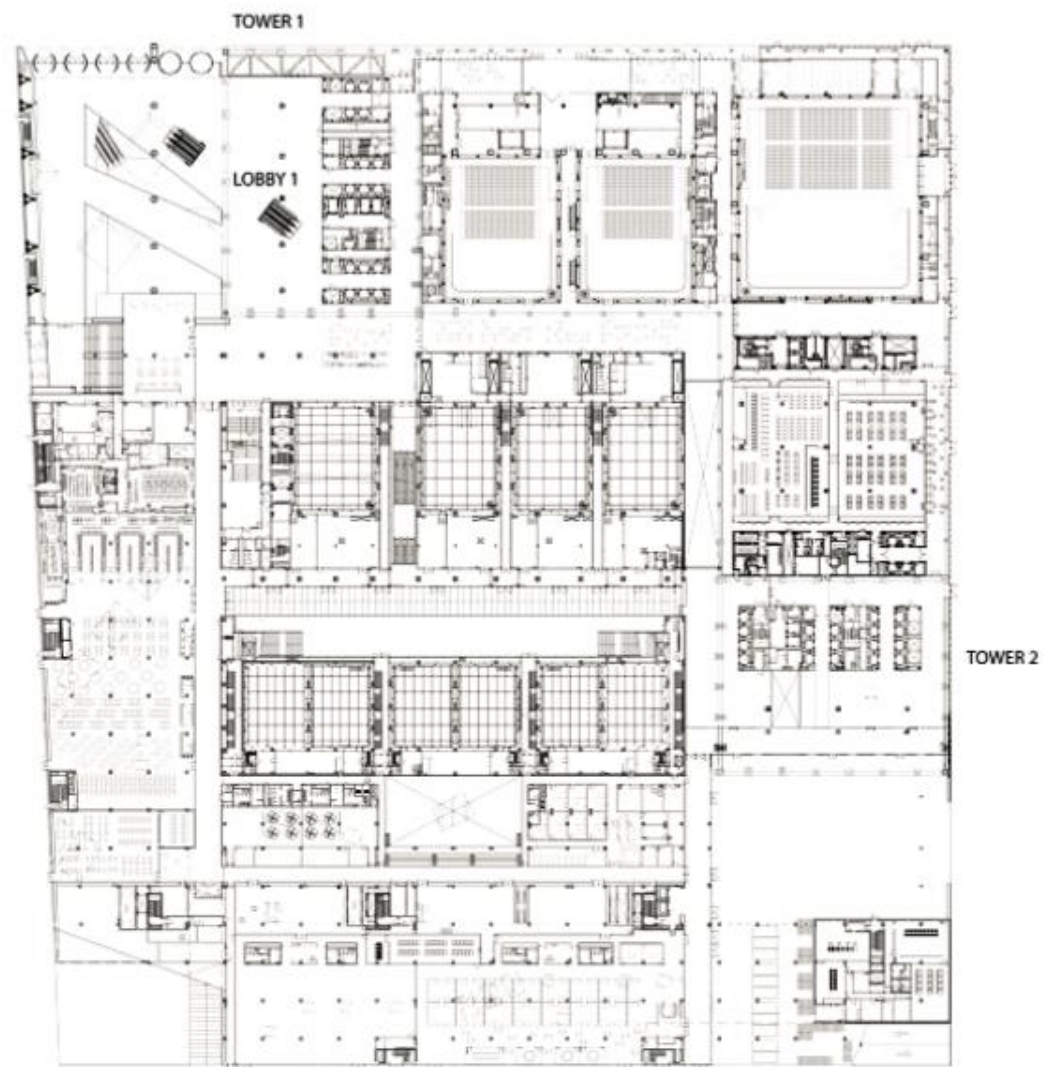
Unfolded'view of final bracing pattern



The continuous loop structure of CCTV.

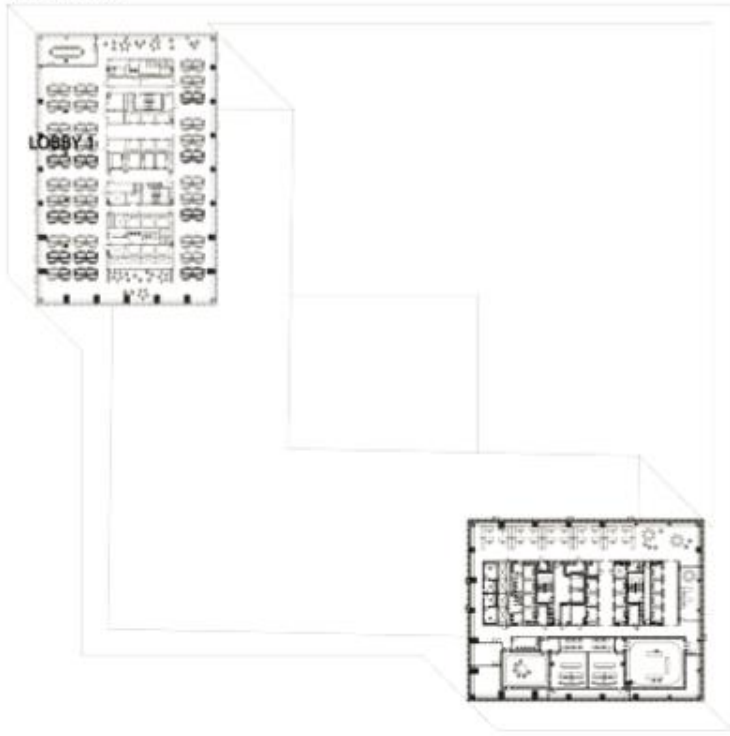


The continuous loop structure of CCTV.



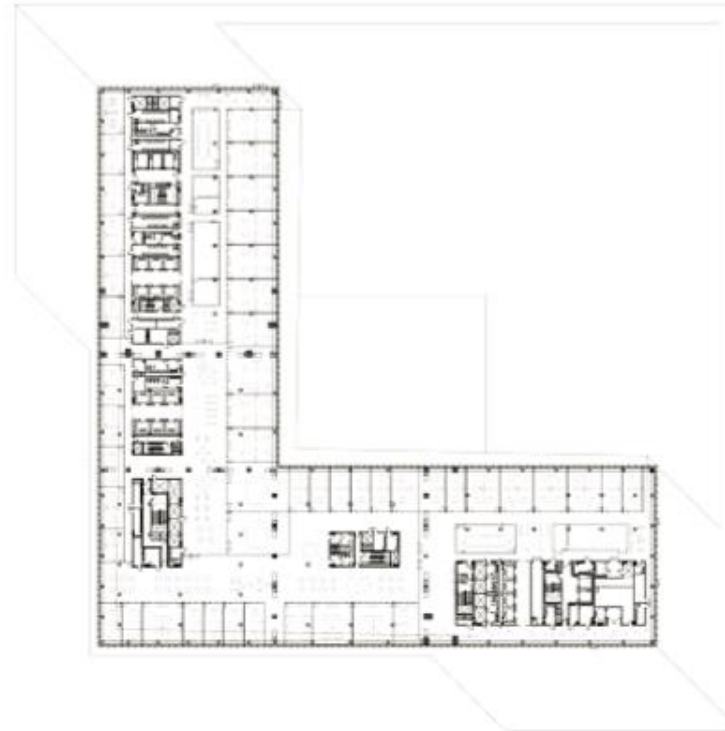
CCTV PLAN F1

TOWER 1 F15



TOWER 2 F14

TOWER 1



TOWER 2