

DR MIGUEL ANGEL ROBLES – CARDONA

The ARCHITECT-Engineer



AUDITORIUM,
TENERIFE (SPAIN), 2003



Architecture has fallen under the pressures of economical need and slipped into production of banality and normalcy. To challenge this norm is seen as something impossible and difficult – almost undoable. Hence, our effort to push these established boundaries are seen as almost absurd.

Which is why we have chosen **PARADOXICAL**, as the theme of our exhibition which is the realization of nonconformist ideas in a conformist world.



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WHY MALAYSIA?

*“Choose a job you love,
and you will never work
for a single day in your life”*

CONFUCIUS

ARCHITECTURE

- Art of designing and constructing buildings.
- Design of a construction.

ARCHITECT

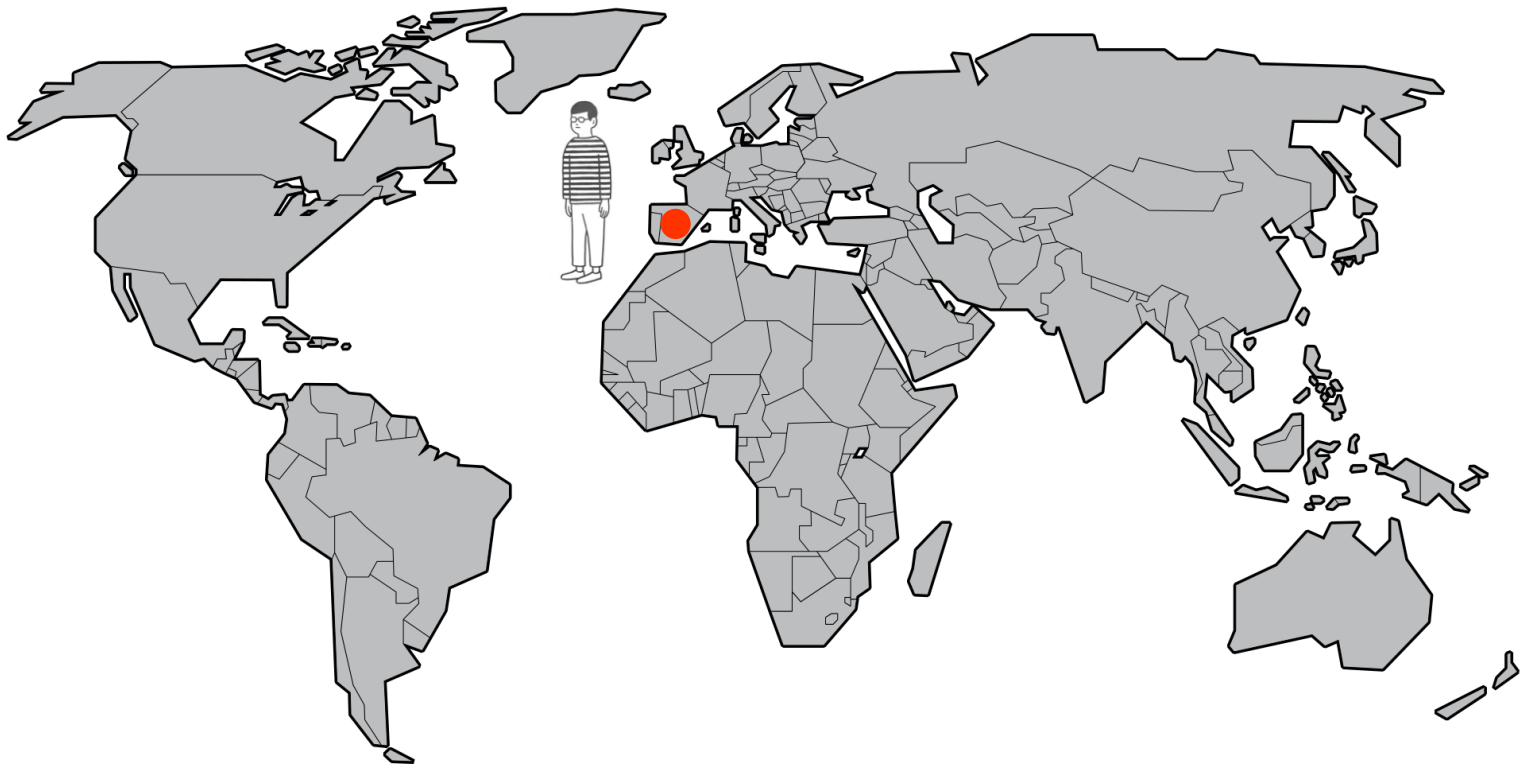
- A person who designs buildings and supervises their construction.
- A person legally authorized to practice architecture.

DESIGNER

- A person who designs.
- A person who plans the look of something prior to it being made, by preparing drawings or plans.

-CONTRACTOR

- A person or firm that undertakes a contract to provide materials or labour to perform a service or a job.
- A person who builds something.







*“Working one year in Malaysia
is like working three years in New York”*

*“When you do something here for the first time,
you automatically become an expert,
because there is no time to lose”*

LILLIAN TAY

Being an Architect in ***Spain VS Malaysia***

- 1) **Professional Qualification**
- 2) Education **Syllabus** and **Scope of Works**
- 3) Society's **Expectation and Perception**



GUIDE TO FIRE PROTECTION IN MALAYSIA

**UNDANG-UNDANG KECIL BANGUNAN
(WILAYAH PERSEKUTUAN KUALA LUMPUR) 1985 &
BUILDING (FEDERAL TERRITORY OF KUALA LUMPUR) BY-LAWS 1985**

STREET, DRAINAGE AND BUILDING ACT 1974 (ACT 133)

ARCHITECTS ACT 1967 (ACT 117) & RULES

TOWN AND COUNTRY PLANNING ACT 1978 (ACT 172) & ORDER

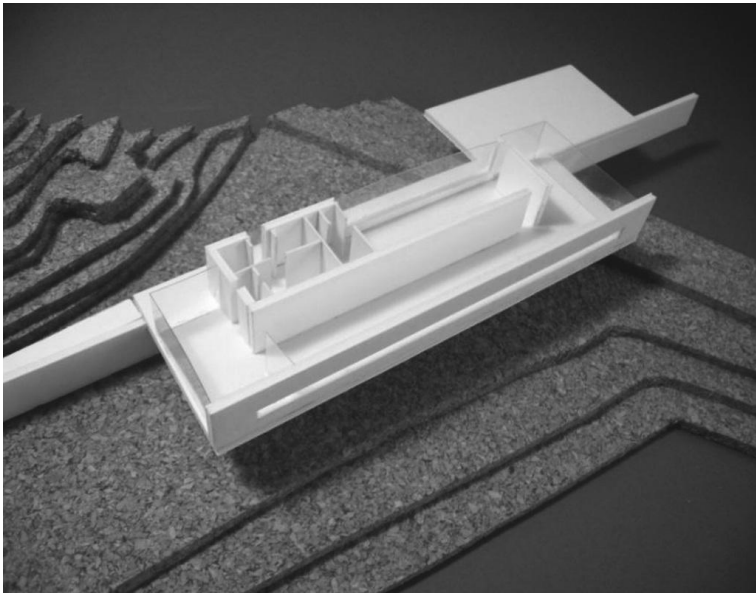
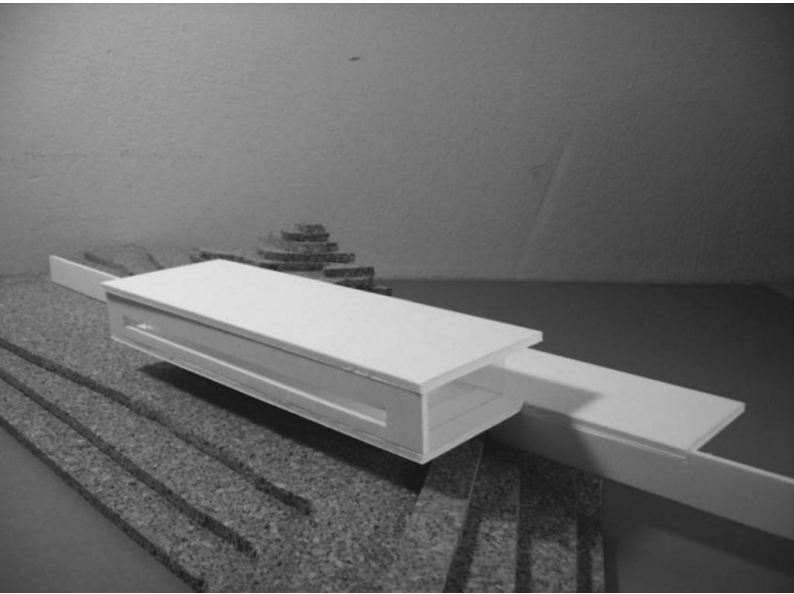
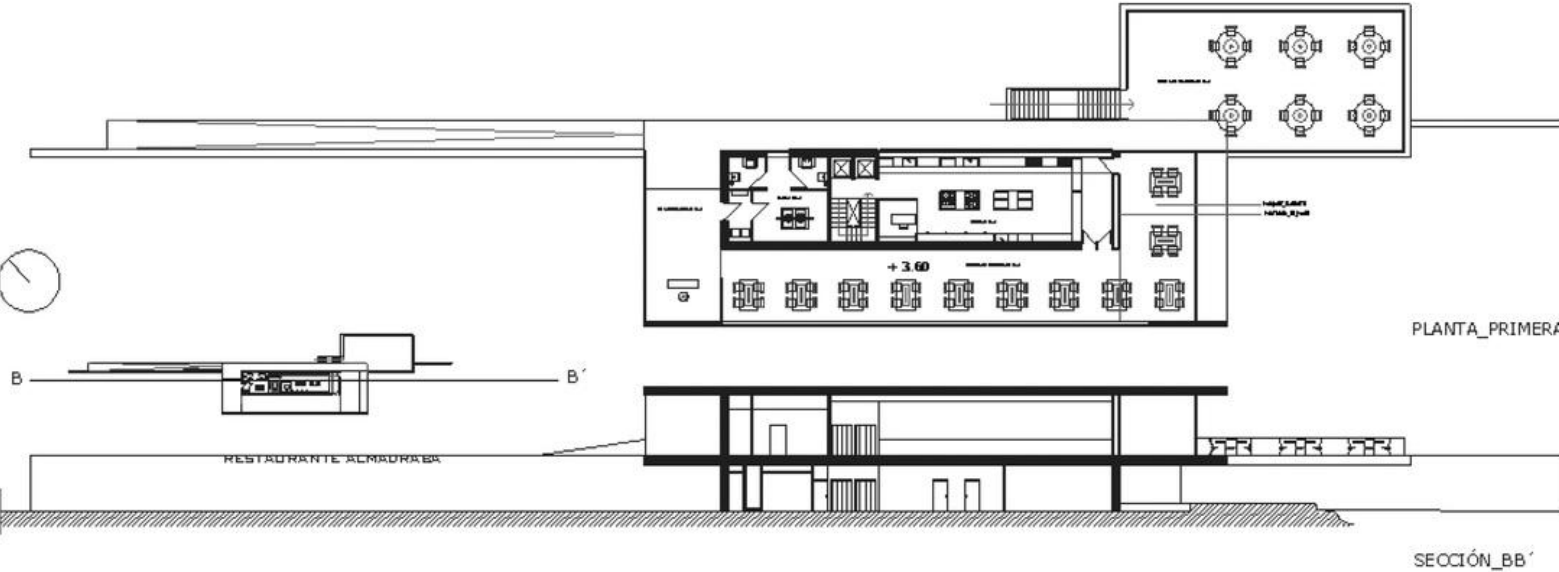
**NATIONAL LAND CODE
(ACT 56 OF 1965) & REGULATIONS**

STRATA TITLES ACT 1985 (ACT 318), RULES & ORDERS

HOUSING DEVELOPMENT (CONTROL AND LICENSING) ACT 1966 (ACT 110) & REGULATIONS

Code	Subject	Cred	C. Eq	Dur	Type	Annum	Year
Enrolled subjects:							
150001	Assisted Drawing	9		G1	T	03 – 04	1
150002	Descriptive geometry	12		G1	T	03 – 04	1
150003	Mathematics I	12		G1	T	03 – 04	1
150004	Construction I	6		C1	T	03 – 04	1
150005	History of Architecture I	9		C1	T	03 – 04	1
150006	Physics I	6		C2	T	03 – 04	1
150007	Architectural Design I	12		C2	B	03 – 04	1
150008	Graphic Architectural Analysis	24		G1	B	03 – 04	1
Enrolled subjects:							
150009	Architectural Design II	22,5		G1	T	04 – 05	2
150010	Structures I	12		G1	T	04 – 05	2
150011	Theory of Architecture	9		G1	T	04 – 05	2
150012	Urban Design	9		G1	T	04 – 05	2
150013	Construction II	12		G1	T	04 – 05	2
150014	Mathematics II	9		G1	B	04 – 05	2
150015	Physics II	9		G1	B	04 – 05	2
150016	History of Architecture II	7,5		G1	B	04 – 05	2
Enrolled subjects:							
150017	Architectural Design III	20		G1	T	05 – 06	3
150018	Structures II, Soil and Foundations	9,7		G1	T	05 – 06	3
150019	History of Architecture III	7,5		G1	T	05 – 06	3
150020	Construction III	10		G1	T	05 – 06	3
150021	Design Composition	7,5		G1	T	05 – 06	3
150022	Conditioning I	5		C2	T	05 – 06	3
150023	Urban Planning	10		G1	T	05 – 06	3
150024	Public Spaces System, Urban Landscape	5		C2	O	05 – 06	3
150025	Numerical Methods of Calculation	4,5		C1	O	05 – 06	3
150037	Acoustics and Energy Exchange in Buildings	4,5		C1	L	05 – 06	1
150042	Fundamentals of Living	5		C1	L	05 – 06	4
Enrolled subjects:							
150027	Architectural Design IV	19,5		G1	T	06 – 07	4
150028	Soil and Foundations	5		C1	T	06 – 07	4
150029	Construction IV	10		G1	T	06 – 07	4
150030	Services Design I	7,5		C2	T	06 – 07	4
150031	Structures III	5,3		C1	B	06 – 07	4
150032	Planning and Development and Urban Project	10		G1	B	06 – 07	4
150039	Special Structures	5,5		C2	O	06 – 07	4
150041	Architecture and Environment	4,5		C2	O	06 – 07	4
150043	Review and History of Andalusia Architecture	5		C1	O	06 – 07	4
150044	Pathology and Renovation of Masonry Works	4,5		C2	O	06 – 07	4
150045	Projects and Sites Supervision. Quality Control	5		C1	O	06 – 07	4
7770733	Information Resources for Architecture and Construction	3		L	L	06 – 07	1
7770733	Information Resources for Architecture and Construction	3		L	L	06 – 07	1
7770744	Architecture, Culture and Society in Japan	4		L	L	06 – 07	1
7771016	Wednesday at noon. Series of Conferences on Architecture	6		L	L	06 – 07	1
Enrolled subjects:							
150046	Sites Direction and Organization	4,5		C2	T	07 – 08	5
150047	Urban Management	5		C1	T	07 – 08	5
150048	Final Degree Thesis	3		C2	T	07 – 08	5
150048	Final Degree Thesis	3		C2	T	07 – 08	5
150049	Conditioning and Services Design II	5		C1	B	07 – 08	5
150050	Architectural Design V	20,5		G1	B	07 – 08	5
150051	Construction V	10		G1	B	07 – 08	5
150056	Structural Design	12		G1	O	07 – 08	5
150057	Fire Protection, Transportation and Communications	4,5		C1	O	07 – 08	5
660001	English I (A2)	8		G1	L	07 – 08	1
7770797	Architecture Open Classroom. The Professional Practice	8		L	L	07 – 08	1
7770797	Architecture Open Classroom. The Professional Practice	8		L	L	07 – 08	1
7771053	American Architecture Classroom in Andalusia	3		L	L	07 – 08	1
7771053	American Architecture Classroom in Andalusia	3		L	L	07 – 08	1
7771055	Wednesday at noon. Series of Conferences on Architecture	6		L	L	07 – 08	1
7771057	Conferences on Architecture and Sustainable Development	3		L	L	07 – 08	1
7771058	Conferences on Elimination of Architectural Barriers	3		L	L	07 – 08	1
Credits Recognition:							
	CULTURAL WEEK 2008. PROTECTED SPACE	3			L	07 – 08	
Enrolled subjects:							
150048	Final Degree Thesis	3		C2	T	08 – 09	5
150048	Final Degree Thesis	3		C2	T	08 – 09	5
7770728	Usage of Pre-stressed Concrete in Structures	3		L	L	08 – 09	5
7770728	Usage of Pre-stressed Concrete in Structures	3		L	L	08 – 09	5

RESTAURANT – OBSERVATORY,
CADIZ (SPAIN), 2006



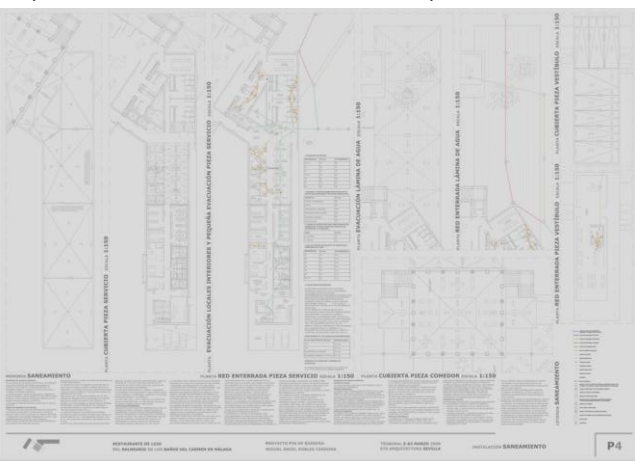
Engineering knowledge benefits
Architects & Architecture

- 1) **Protect and pursue our design aspirations**
without relying blindly on engineers
- 2) **Back-up our design decisions**
- 3) **Inspiration to our architectural expressions**
to add complexity (or simplicity)



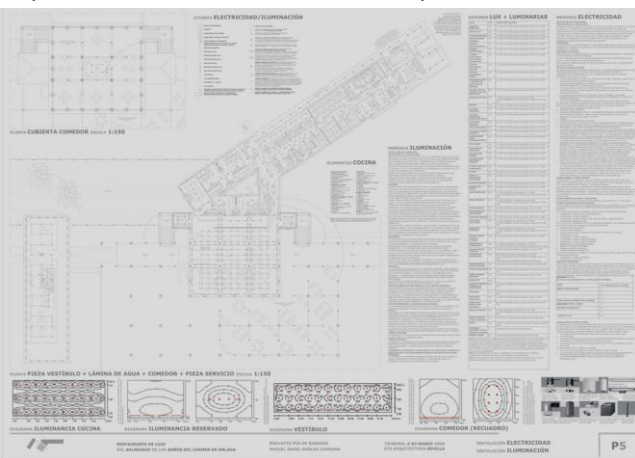
1) WATER SUPPLY

2) FIRE PROTECTION



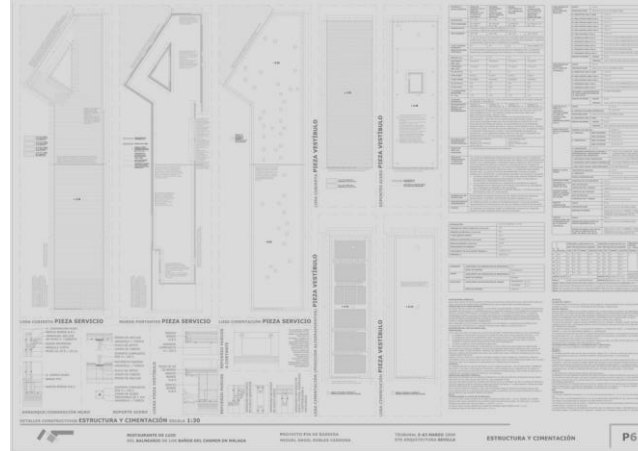
3) SEWERAGE SYSTEM

4) SYPHONIC SYSTEM



5) LIGHTING SYSTEM

6) ELECTRICAL SYSTEM



7) STRUCTURE

8) FOUNDATION



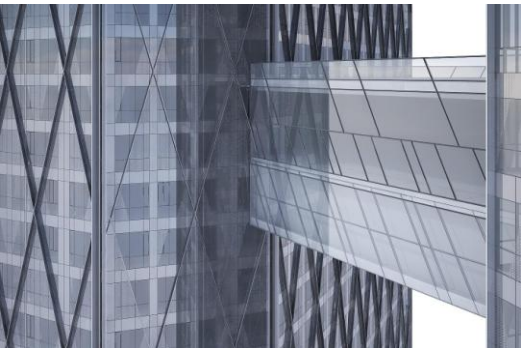
9) ACMV

10) FINISHES & SPECS

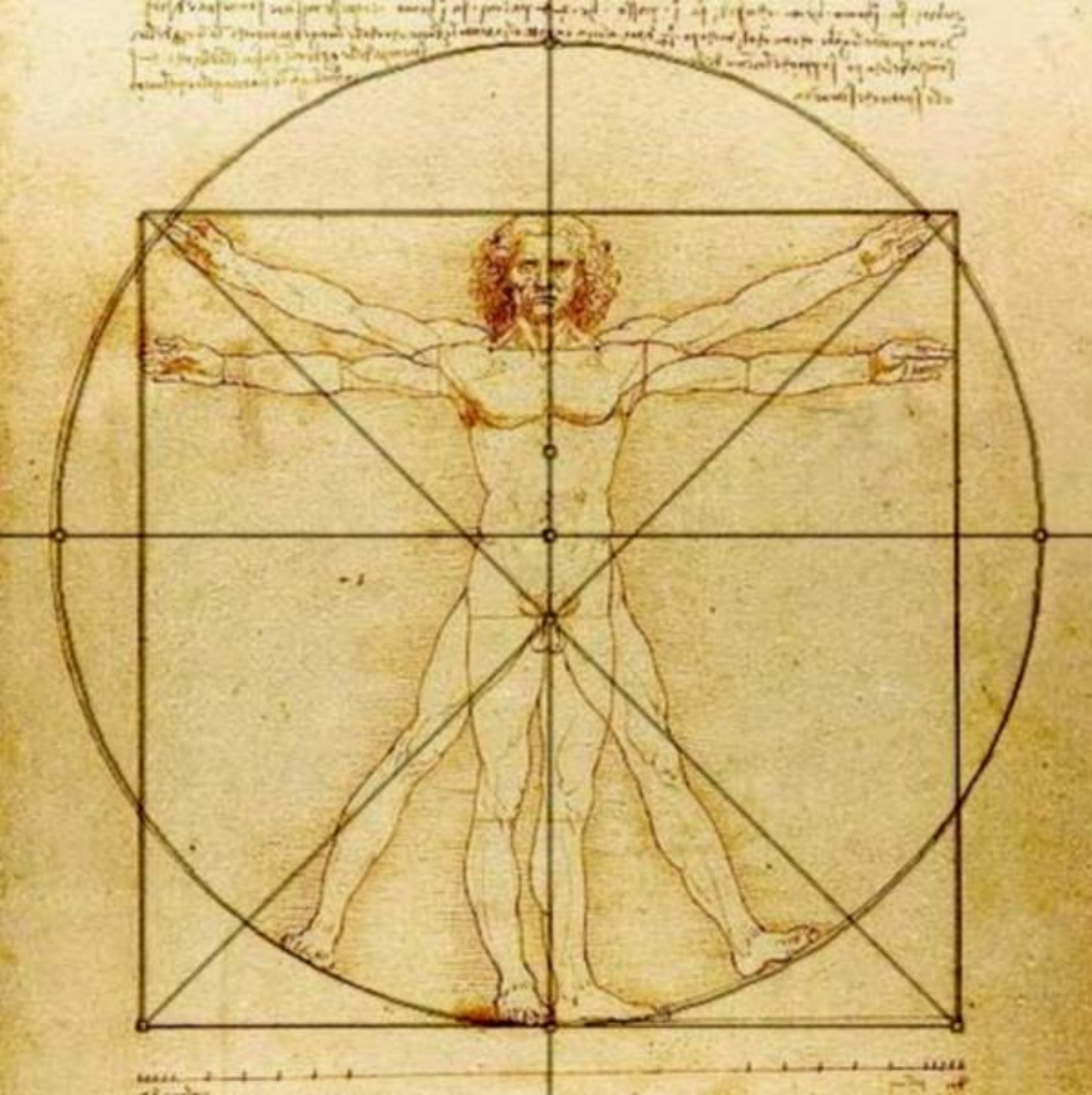


11) CONSTRUCTION DETAILS, SPECS 12) SITE MANAGEMENT

OXLEY TOWERS KLCC,
KUALA LUMPUR (MALAYSIA), 2022

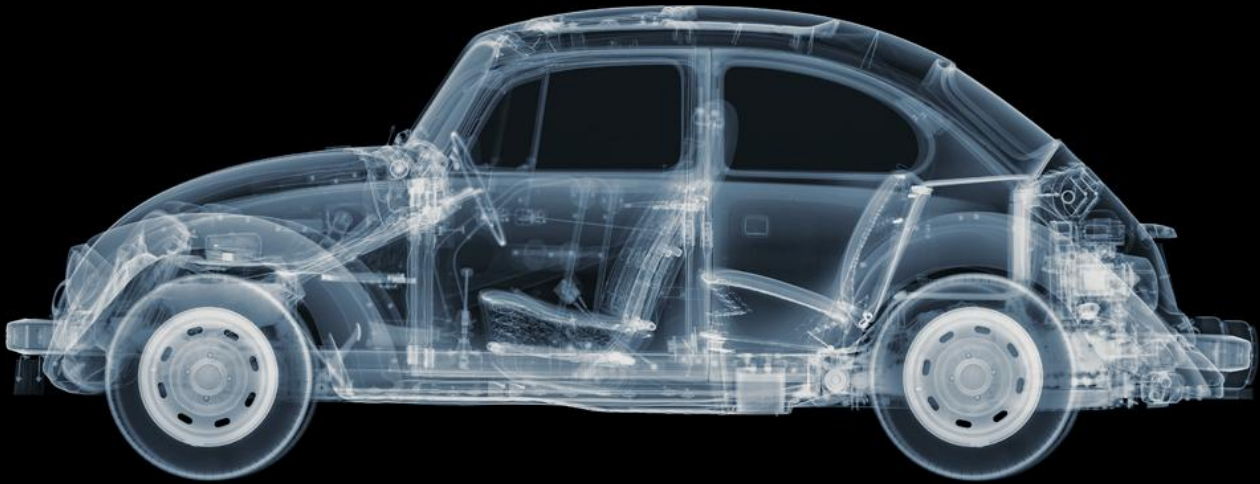












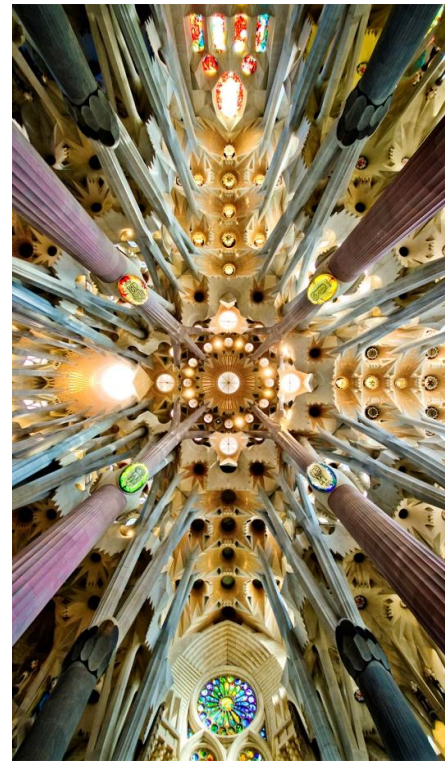
DOME OF THE CATHEDRAL OF SANTA MARIA DEL FIORE,
 FLORENCE (ITALY)



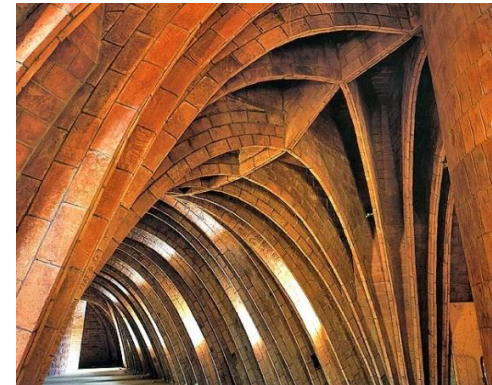
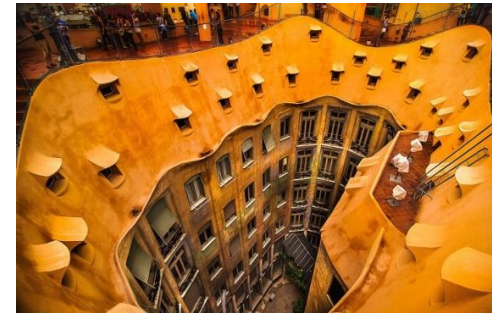


ANTONI GAUDÍ
(1852 - 1926)

LA SAGRADA FAMILIA,
BARCELONA (SPAIN), 1882 – 2026



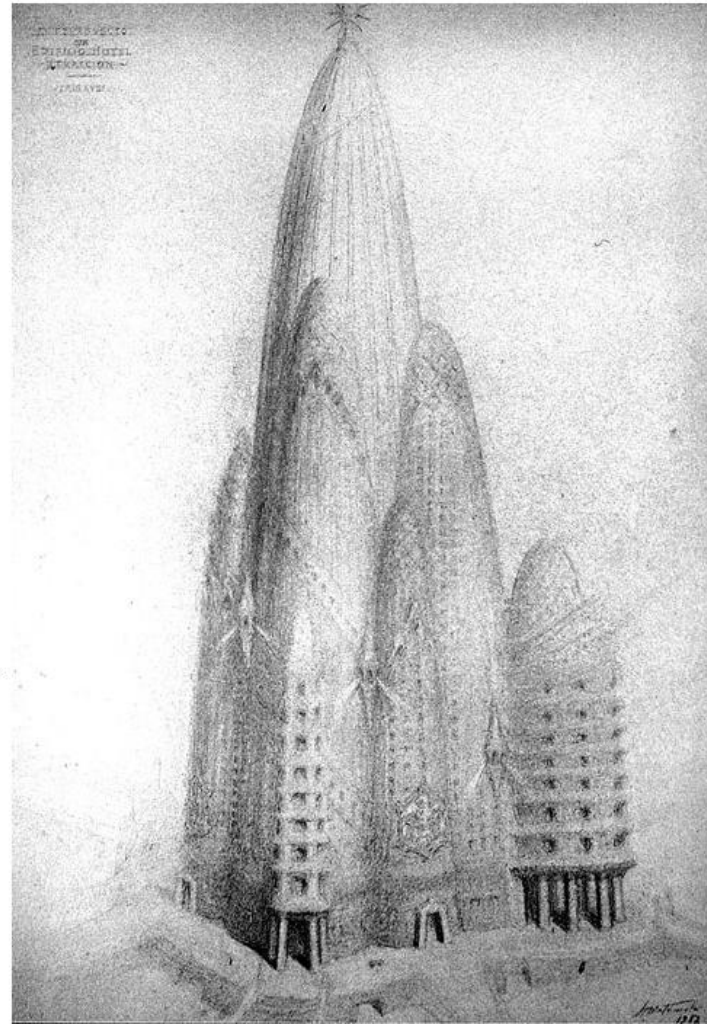
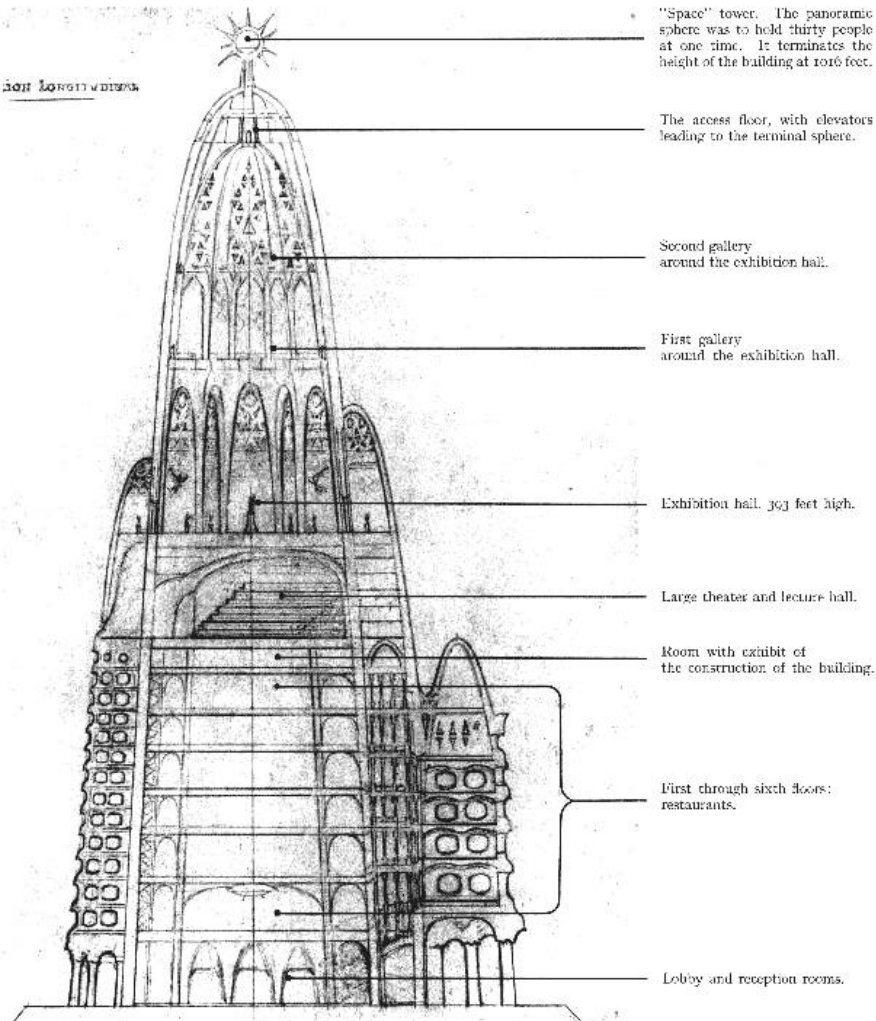
**MILA HOUSE
OR LA PEDRERA,
BARCELONA (SPAIN),
1906 – 1912**



MILA HOUSE
OR LA PEDRERA,
BARCELONA (SPAIN),
1906 – 1912



HOTEL, NEW YORK (USA), 1908





SANTIAGO CALATRAVA
(1951)

BAUMWOLLHOF BALCONY,
ZURICH (SWITZERLAND), 1985



ERNSTINGS WAREHOUSE,
COESFELD (GERMANY), 1985



PTT POSTAL CENTRE CANOPY,
LUZERN (SWITZERLAND), 1985





THE CREEK TOWER,
DUBAI (UAE), 2021





LILLIAN TAY



DR Miguel Angel Robles-Cardona is an Architect with the VERITAS Design Group.

From a single-cell organism to the human being's brain. Understanding the World surrounding us is a two-way trip, regardless the complexity or scale: a journey from General to Specific, from Overall to De-

Professional intrusion in architecture

ymath, represented in the figure of Michelangelo2 as the ideal of that individual who knows, understands and masters most fields of knowledge is not possible anymore. The complexity of knowledge developed in all fields during

knowledge of Harmony and Composition, since they are also crucial for the proper interpretation of the work and consequent impact on the listener-user, viewer-. Last, they are also duties of the architect as conductor to take the "tempo".

elevated complexity. This is just an example.

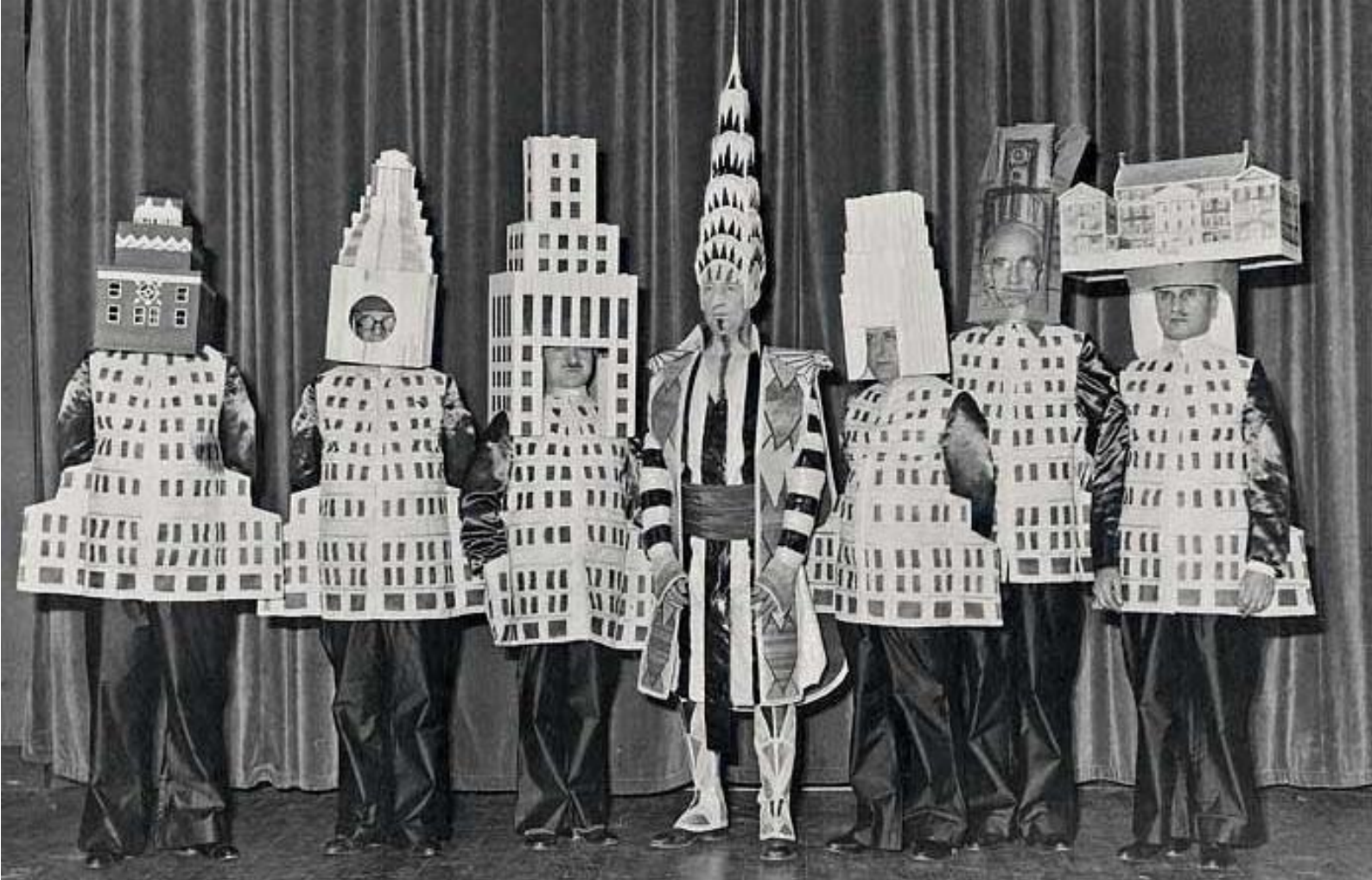
Towards a new architecture: a warning sign

Architecture schools increasingly have an extensive program of sub-



*Architecture and Engineering **come together***

- 1) Engineering and construction aspects **never come after the design is finalised**
- 2) Structure and building services **can never be forced** in a building, but must be thought concurrently from the very genesis of the architecture concept



SEVEN ARCHITECTS (FROM LEFT TO RIGHT: CHRYSLER BUILDING; A. STEWART WALKER, FULLER BUILDING; LEONARD SCHULTZE, WALDORF-ASTORIA; ELY JACQUES KHAN, SQUIBB BUILDING; WILLIAM VAN ALLEN, CHRYSLER BUILDING; RALPH WALKER, 1 WALL STREET; D. E. WARD, METROPOLITAN TOWER; AND JOSEPH H. FREELANDER, MUSEUM OF NEW YORK) DRESSED AS THEIR OWN BUILDINGS CONSTRUCTED IN NEW YORK, BEAUX-ARTS COSTUME BALL, (1931)

"ARCHITECTURE IS THE REPRESENTATION OF CONSTRUCTION"
Friedrich Wilhelm Joseph Schelling (1775 – 1854)

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Thanks!

