

01 Karnak Temple (hypostyle hall and pylon), Egypt, 18th-12th centuries BC
Formation of Empty Space: An enormous, monumental mass of the Old Kingdom. Empty space arose in the hypostyle hall built in the temple complex during the New Kingdom.

02 Persepolis (The Throne Hall), Iran, 520-330BC

Awakening of the Imagination: The imperial capital of the the Achaemenid Empire of Persia, which was destroyed by Alexander the Great. A space has been recreated based on an imagining of those ruins.

03 Parthenon (colonnade), Greece, 447-431BC, Pheidias, Ictinus, Callicrates

Criterion and Correction: Strict architectural criterion (order: configuration of columns and beams). Daring yet subtle visual corrections (camber of horizontal materials and convex curvature of columns).

04 Pergamon (retaining wall), Turkey, 3rd-2nd centuries BC

Mountaintop Construction: Constructed by linking together terraces on an isolated mountaintop 355 m above sea level. An urban settlement that represents the height of Hellenistic culture.

05 Pont du Gard (three rows of arches), France, 19 BC

Maintenance of Infrastructure: The aqueduct bridge along the aqueduct that stretches over 50 km and supplied Nîmes with water. A majestic structure of linked arches and a precise grade of 1/4000.

06 Colosseo (exterior wall), Italy, 70-80

Dynamics of an Ellipse: The players move with directness within the stadium; the audience looks on from all around within the theatrum. The elliptical arena pairs both features.

07 Pantheon (dome), Italy, 118-128, Hadrianus

Achievement of Grand Interior Spaces: A grand dome with a diameter of 43.8 m, built in Roman concrete. This kind of large interior space, achieved for the first time, revolutionized the form and function of society.

08 Villa Adriana (wall of Poikile), Italy, 118-138, Hadrianus

Accumulation of Memories: Villa of Emperor Hadrianus, who continued to patrol the territories of the Roman Empire. This is an unprecedented spatial archive of his memories of the Empire's architecture and cities.

09 Casa di Diana (exterior wall), Italy, mid-2nd century

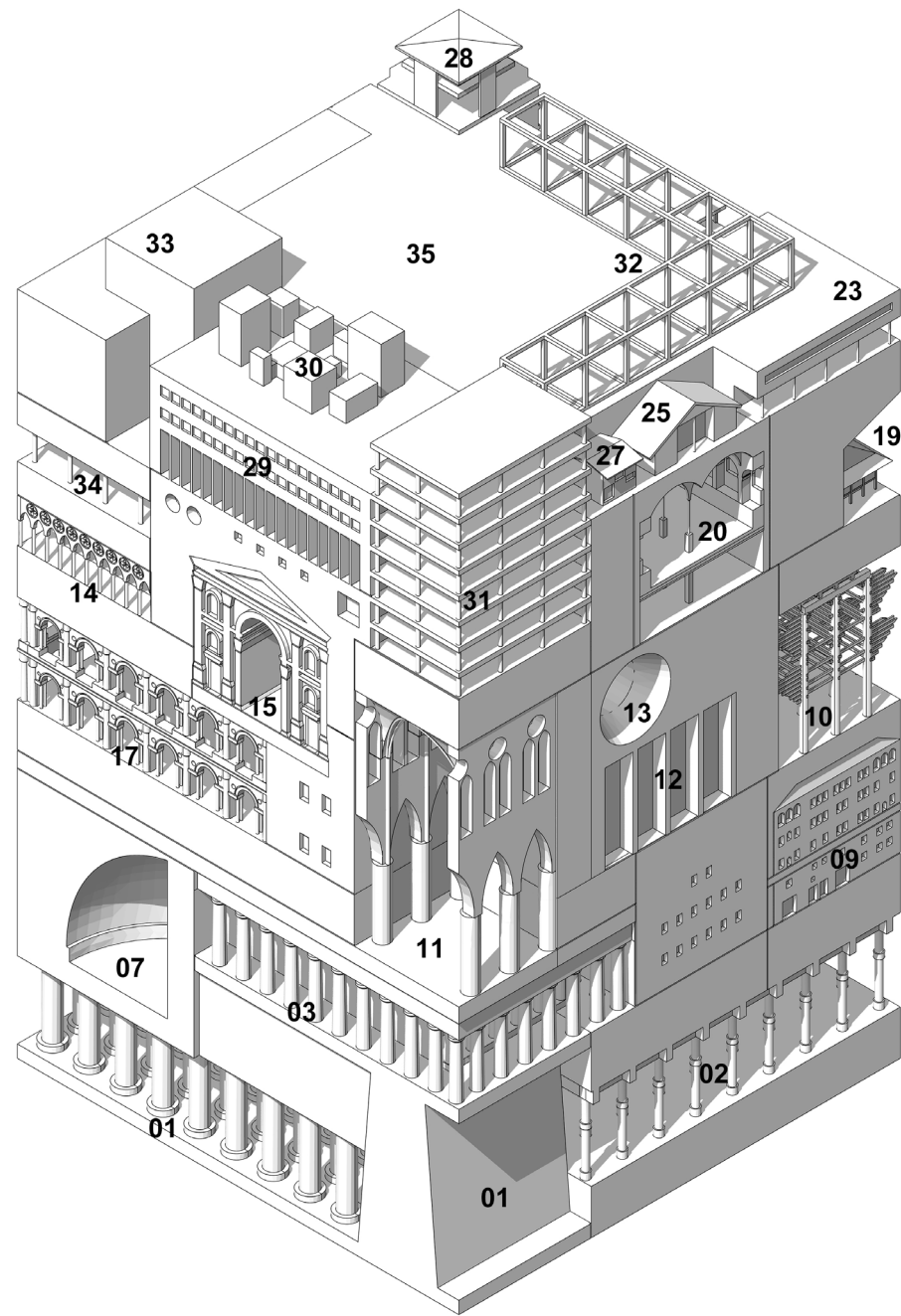
Ancestor of Skyscrapers: Tenement-style insulae of the Roman age, made up of shops and dwellings. These came to exceed 30 m in height as the population of the city increased.

10 Nandaimon Gate of Todaiji Temple (Daibutsuyo-style structure), Japan, 1199, Chōgen

Medieval Radicalism: Supports upper and lower roofs of the same size by its frame, which has tall pillars and many bars. The frame and details of the entablature realized a radical structural beauty.

11 Cathédrale Notre-Dame de Reims (nave), France, 1211-1311, Jean d'Orbais

Vertical Aspirations: A Gothic cathedral with a nave reaching 15 m in width and a ceiling 38



m in height. It appears bright and airy thanks to the tracery (decorative screens for lighting).

12 Sainte Chapelle (buttress), France, 1242-1248

Vanishing Walls: The principal structures are buttresses, which protrudes from the outer wall. By replacing the entirety of the wall apart from the lowest section with windows, the interior space can be brilliantly lit.

13 Cattedrale di Santa Maria del Fiore (drum opening), Italy, 1296-1436, Giovanni di Lapo, Filippo Brunelleschi and others

Expansion of Technology: The 8-cornered dome, with an internal diameter of 43 m, placed by Brunelleschi atop the drum designed by di Lapo. A dramatic expansion of creativity and technology.

14 Palazzo Ducale, Venezia (colonnade), Italy, 14-15C

Aesthetic Transition: This delicate structure composed of slender columns, pointed arches, and circular windows supports an enormous upper wall. A splendid later Gothic work.

15 Basilica di Sant'Andrea (façade), Italy, 1471-1512, Leon Battista Alberti

Theory and Practice: A concinnitas, or holistic

harmony, that results from the lineamentum, or conceptual diagram. A rare work of architecture in which the strength of theory remains.

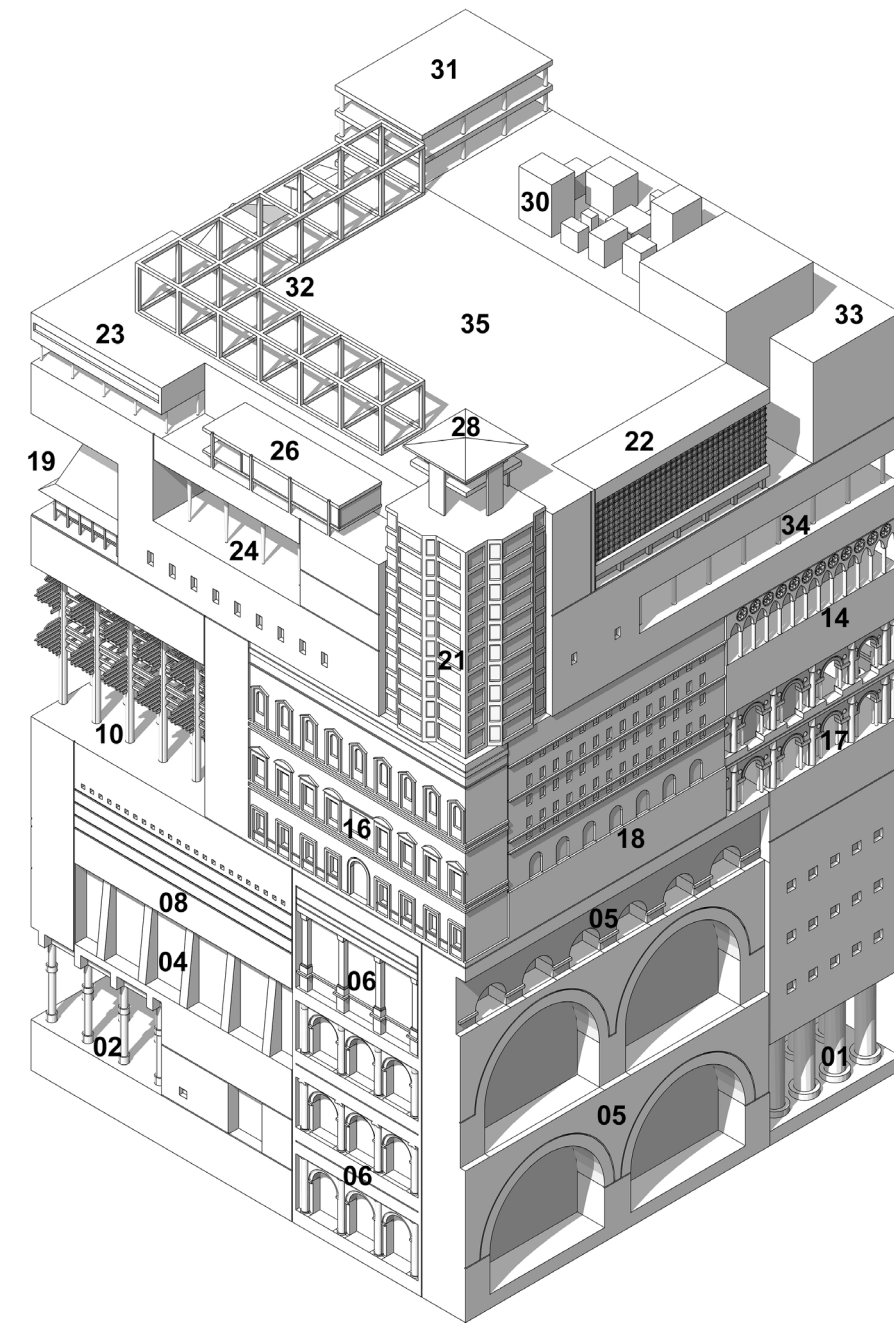
16 Palazzo Farnese (exterior wall), Italy, 1530-1546, Antonio da Sangallo il Giovane, Michelangelo Buonarroti

Architecture of Windows: A mansion built with stucco finishing that does not expose structural pillars to the exterior. Molded elements such as pillars, beams, and pediments are concentrated around windows.

17 Basilica Palladiana (colonnade), Italy, 1549-1614, Andrea Palladio

Sectional Symmetry: Existing public facilities are encircled by a colonnade of serliana (arches and pillars). The mismatch in dimensions is drawn by the symmetry of the sections.

18 Monasterio de El Escorial (exterior wall), Spain, 1582, Juan Bautista de Toledo
Scale and Simplicity: A complex that includes a pantheon, basilica, monastery, and royal palace, at a scale of 206 m x 209 m. The exterior is plain and flat, built of large stacked blocks of granite.



19 Katsura Imperial Villa (Shoin (Shingoten)), Japan, 1615-1663, Hachijonomiya Toshihito / Toshitada

Precocious Modern: A lucid structure that precedes modernist architecture. It interacts sensitively with its environment through the introduction of such elements as fine-tuned eave heights and light shoji.

20 Bibliothèque Sainte-Geneviève (reading room), France, 1843-1850, Henri Labrouste

Innovation from Within: The exterior maintains a façade of classical masonry structure. The interior uses slender cast iron columns and beams to realize an innovative reading room.

21 Reliance Building (bay window), USA, 1890-1895, John Root, Charles B. Atwood

Framing of Bay Windows: An early skyscraper built following the Great Chicago Fire. The exterior is constructed with bay windows composed of terra-cotta and glass.

22 Bauhaus Dessau (curtain wall), Germany, 1925, Walter Gropius

Transparent Pellicle: A glass curtain wall that

veils the gaps between floors. It realizes a continuous, transparent membrane that is not dominated by the articulation of the floors of each level.

23 Villa Savoye (pilotis), France, 1931, Le Corbusier

Detachment of Pillars and Walls: The load on walls is reduced through the main pillar structure. This building embodies the use of pilotis, a roof garden, the free designing of the ground plan, the horizontal window, and the free design of the façade.

24 Johnson Wax Headquarters (workroom), USA, 1939, Frank Lloyd Wright
A Forested Aspect: An office interior forested with "lily-pad" columns that are slender at the bottom and bloom into a lotus-leaf shape at the top. It possesses a classical, uplifting feeling as well as the calmness of being in an otherworldly forest.

25 Kunio Maekawa House (gable roof), Japan, 1942, Kunio Maekawa

Use of the Roof: The exterior has a mountain-shaped gable roof in the style of a private home, while the interior is cube-like and

modern. The roof is constructed to integrate heterogeneous elements.

26 Farnsworth House (universal space), USA, 1951, Ludwig Mies van der Rohe
Archetypal Space: An early universal space, enclosed by glass. An uncomplicated structure with I-steel beams welded to the roof and floor slabs from the outside.

27 Makoto Masuzawa House (minimal house), Japan, 1952, Makoto Masuzawa
The Size of Minimal: The architect's own home, built during a period of architectural restrictions after WWII. A prototype home built with the minimum needed to live, yet imbued with creativity.

28 Sky House (elevated floor), Japan, 1958, Kiyonori Kikutake

Development of the Elevated Floor: An open, elevated floor residence that has lifted the living space into the air. The lower portion of the elevated floor can be swapped out for additional area.

29 Gallarate Housings (colonnade), Italy, 1969-1974, Aldo Rossi, Carlo Aymonino

Scenery of Impression: Makes practical use of the past (or collective memory) that has accumulated in a city through monuments. Pilotis realize the architect's imagined landscape.

30 Moriama House (small boxes), Japan, 2005, Ryue Nishizawa

Distribution and Coordination: The spaces are scattered widely, yet have a variety of mutual relationships that coordinate them. The germ of a networked spatial philosophy.

31 Floors [new]

The Conversion of Homogeneity: To have both homogenous spaces as well as spaces with ubiquitous differences and striking features.

32 Frames [new]

The Framework and Contents: Updating not just the same infill, but also revolutionizing the methods of use for the skeleton.

33 Volumes [new]

Scale and Autonomy: Autonomously articulating and concatenating volumes through scales ranging from minimal to maximal.

34 Passages [new]

Expansion of Lines of Flow: For lines of flow that aren't merely routes for movement but link feelings of place.

35 Exterior Spaces [new]

The Wellspring of Possibilities: Drawing out the shareable elements that lie separately dormant in the city to an outdoor space.

Memories of Architecture

This model integrates memories of multiple architectural structures into a single object. A three-dimensional collage of assorted buildings, ranging from ancient Egypt to the present age, was created using a 3D printer. More than 30 remembered buildings were stacked largely in order of oldest to newest.

Composition design: Fumio Matsumoto
 Exhibited at the Koishikawa Annex of the University Museum at the University of Tokyo.
 3D data assistant: Jianing Xu
 3D printing: Yasojima Proceed Co., LTD
 Scale 1:300 Made in June, 2017