Theories of Architecture

ENAR 329

Arch. Nadia Asali

Lecture 1
Architecture from Renaissance to Industrial Revolution

25 Sep.2021

'Theories of Architecture'
Where does the term originates from?

"Humans make theories to explain the world around them. **"Theory building develops out of our need to make sense out of life."**

<u>Philosophy</u> and <u>religion</u> are two examples of this human desire to explore and explain the meaning of life.

As such, "theory" and "philosophy" are often synonymous. In fact, many library databases use the term "architecture philosophy" rather than "architecture theory." The term "philosophy," however, may be misleading, as it suggests something ephemeral, hypothetical, or non-concrete. **In actuality, architectural theory serves a practical role. Though "practice" is often seen as the complement to "theory," architectural theory fulfills a rational, pragmatic, and concrete purpose."** *Introducing architectural theory - Korydon Smith*

The term theory of architecture takes us back to the Latin term *ratiocinatio* as used by Vitruvius, a Roman architect-engineer of the 1st century CE, to :"**differentiate intellectual from practical knowledge in architectural education**"
Encyclopedia Britannica

"**Vitruvius**, in full **Marcus Vitruvius Pollio**, (flourished 1st century BC), Roman architect, engineer, and author of The Ten Books on Architecture"
Encyclopedia Britannica

The book was a practical guide to the design and construction of towns, infrastructure, and public buildings, and private residences.

The book also included discussions of material properties and usage, proportion and geometry, and site orientation, all of which are issues still relevant to architecture today.

The Vitruvian Man was created by Leonardo da Vinci around the year 1487. It is accompanied by notes based on the work of the famed architect, Vitruvius Pollio.

In the drawing, Da Vinci depicts a nude man standing inside a circle and a square with arms and legs drawn in two positions. The drawing was an attempt to illustrate principles of Vitruvius, a Roman architect who described the proportions of the human body in *De architectura*. Yet Da Vinci is not the only—or even the first—artist to attempt illustrating Virtruvius's proportions.

The architectural bible for the new humanists was (the ten books of Architecture) written by **Vitruvius** - published in 1511 For Vitruvius, **the ideal systems of proportion found in human body** He also noted how the ideal shapes of **square** and **circle** are also incorporated in the human body.
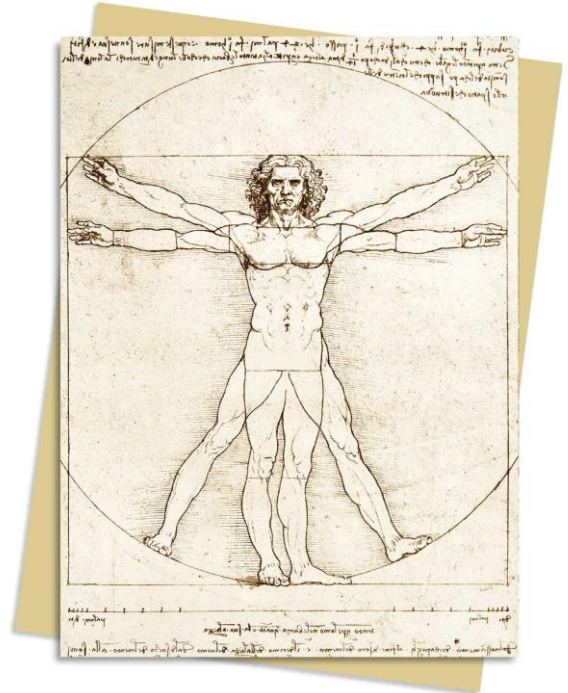
Vitruvius ; The Architect between Practice and Theory

"The architect should be equipped with knowledge of many branches of study and varied kinds of learning"

This knowledge is the child of practice and theory.

Practice *is the continuous and regular exercise of employment where manual work is done with any necessary material according to the design of a drawing.*

Theory, *on the other hand, is the ability to demonstrate and explain the productions of dexterity on the principles of proportion."*

Vitruvius - The ten books of Architecture

يرى فيتروفيوس ان المعماري يجب ان يكون ملم بانواع العلم المتنوعة وان يكون على معرفة بالفروع المتشعبة للدراسة, ويرى ان هذه المعرفة وليدة التدريب العملي والنظري, ولكي يكون المعماري مجهز لجميع الحالات, ولكي يصل الي اهدافه بسرعة, يجب ان يتحلى بكليهما .

فالتدريب العملي بدون النظري لا يمكن المعماري من الوصول الى مناصب ذات سلطة تناسب جهوده, اما التدريب النظري بدون علمي **فيجعل المعماري يتوجه نحو الخيال وليس الجوهر.**

Vitruvius ; The Architect between Practice and Theory

*"He ought, therefore, to be both naturally gifted and amenable to instruction. **Neither natural ability without instruction nor instruction without natural ability can make the perfect artist.***

Let him be educated:

-skilful with the pencil.

-instructed in geometry.

-know much history.

-have followed the philosophers with attention, understand music,

-have some knowledge of medicine,

*-know the opinions of the jurists, and be acquainted with astronomy ."*

Vitruvius - The ten books of Architecture

"يعتمد فن العمارة على الموهبة وهي الشيء الفطري الذي يمكن ملاحظته وعلى العلم وهو الشيء المكتسب **,ولكي يكون الشخص معماري فعلا ,يجب ان يكون ملما بكليهما** ,وعلى المعماري اكتساب الثقافة والمهارة عن طريق **:ان يصبح ماهرا باستعمال القلم** :فالمعماري من خلال اعماله المكتوبة يخلد لنفسه ذكرى الى الابد ,ومن خلال رسوماته يستطيع تصوير المخططات الاولية للعمل الذي يقترحه **.ان يعتمد اتباع طريقة الهندسة :** فالهندسة علم مساعد في فن العمارة فهي تعلم المعماري استخدام الادوات الهندسية التي تعطيه القدرة على تنفيذ المخططات على الارض **.ان يعرف الكثير عن التاريخ:** فالكثير من الاجزاء الزخرفية المستخدمة في العمارة قديما بحاجة الى تفسير**.ان يسير على نهج الفلاسفة:** فالفلسفة تجعل من المعماري شخصا سامي الافكار معتدا بنفسه,كما وتجعل منه شخصا امينا منصفا **.ان يفهم الموسيقى .ان يلم بالقليل من علم الطب** :حيث ان المعماري عندما يلم بالقليل من الطب يستطيع اختيار مواقع بناء ملائمة صحيا ,بحيث يتوفر فيه المياه ,وان تدخله الشمس والهواء **.ان يعرف اراء القانون** :كمعرفة القوانين المتعلقة بالصرف الصحي والنوافذ)والارتداد مثلا في وقتنا الحالي **.(ان يلم بعلم الفلك** :فالعماري من الضروري ان يكون على معرفة بالاتجاهات واطول اوقات الليل والنهار".

ولا يقصد فيتروفيوس ان يكون المعماري رساما او طبيبا او فيلسوفا او غيرها ,بل يجب ان يكون على دراية بهذه العلوم ,ولا يطلب منه الوصول الى دراية الكمال والتمييز فيها .

Vitruvius And the Fundamental Principles of Architecture

"Architecture depends on Order, Arrangement, Eurythmy,Symmetry,Propriety, and Economy."
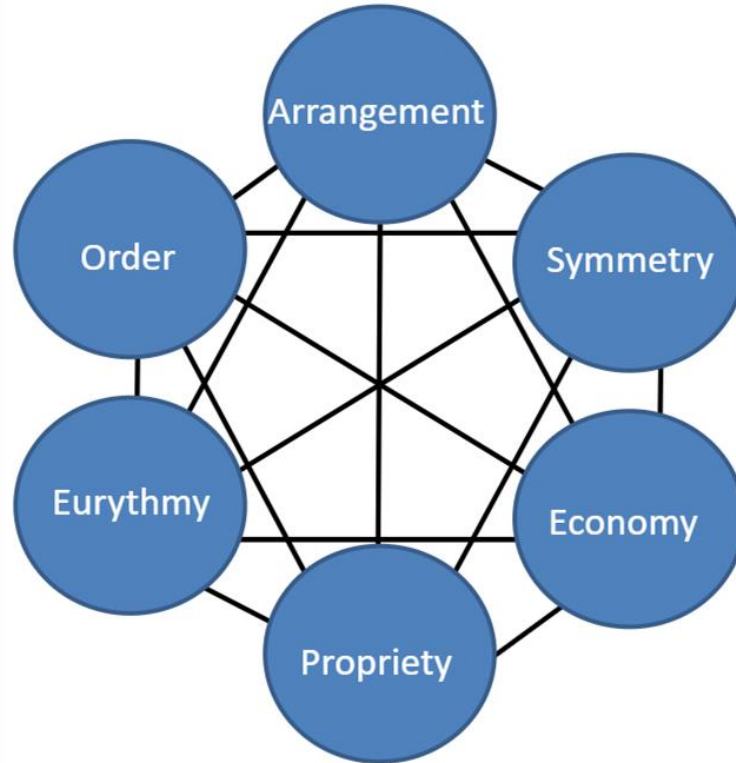
Vitruvius And the Fundamental Principles of Architecture

*"-**Order** gives due measure to the members of a work considered separately, and symmetrical agreement to the proportions of the whole.*

*-**Arrangement** includes the putting of things in their proper places and the elegance of effect which is due to adjustments appropriate to the character of the work.*

*-**Eurythmy** is beauty and fitness in the adjustments of the members. This is found when the members of a work are of a height suited to their breadth, of a breadth suited to their length, and, in a word, when they all correspond symmetrically.*

*-**Symmetry** is a proper agreement between the members of the work itself, and relation between the different parts and the whole general scheme.*

*-**Propriety** is that perfection of style which comes when a work is authoritatively constructed on approved principles. It arises from prescription.*

*-**Economy** denotes the proper management of materials and of site, as well as a thrifty balancing of cost and common sense in the construction of works."*

Vitruvius - The ten books of Architecture

يعتمد فن العمارة على :

-النظام والترتيب :النظام هو **الذي يؤدى الى القياس الصحيح لاجزاء العمل** كل على حدة ,ام **الترتيب فهو وضع الاشياء في اماكنها الصحيحة** . ويمكن التعبير عن العمل باشكال تعبيرية خاصة وهي المخطط الارضي والمسقط العمودي والرسم المنظوري .
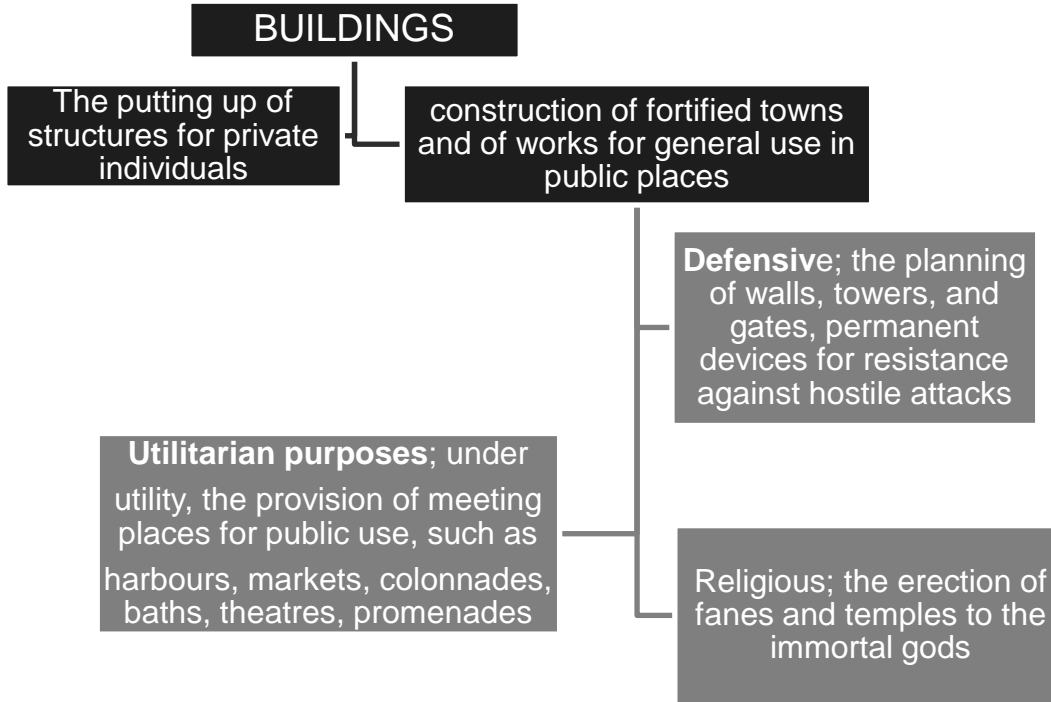
-التناغم الايقاعي :هو جمل **ودقة المعايرة النسبية للاجزاء مع بعضها** البعض **كأن يكون طول المبنى يتناسب مع عرضه والعكس.**

-التناظر او التناسق :هو العلاقة بين مختلف الاجزاء وبين اجمالي المشروع العام بالتوافق مع جزء معين يتم استخدامه كمعيار.
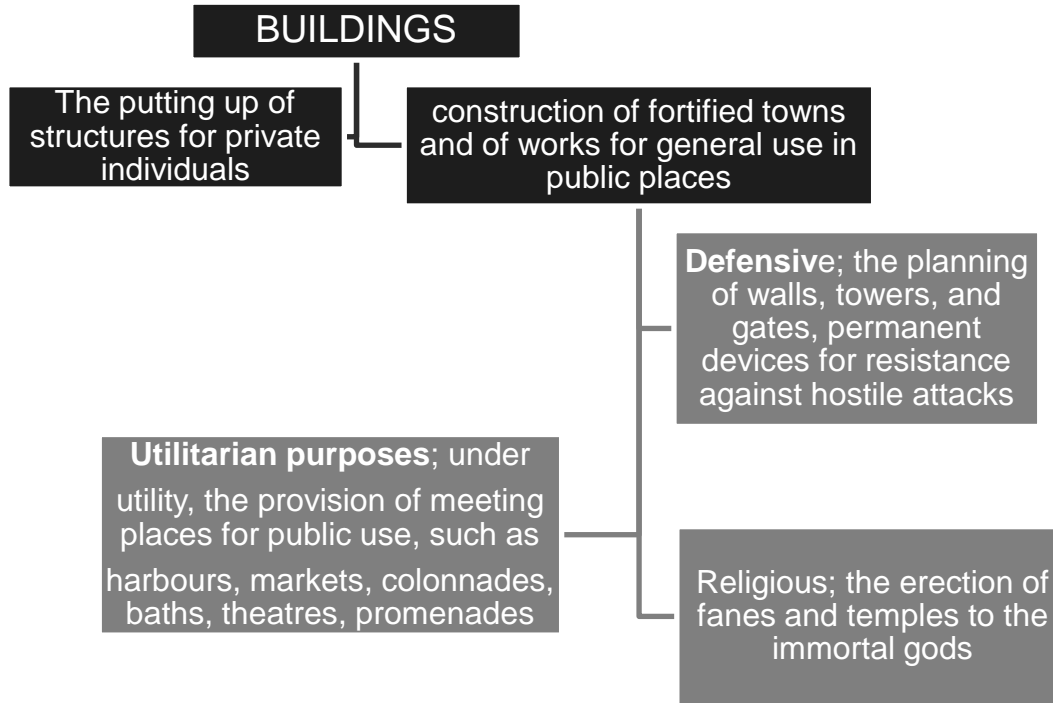
-الملائمة والتعبير   :وتعني الاتقان للاسلوب الذي تم استعماله في انجاز العمل بشكل سليم وفق مبادئ مصرح بها وهذا ينشأ من امور قائمة او من الاستعمال او من الطبيعة .

-الاقتصاد :على المعماري طلب اشياء يمكن ايجادها وتحضيرها من دون كلفة باهظة ,والموازنة بين التكلفة وما هو مقبول.

Vitruvius ; The Departments of Architecture

BUILDINGS

The putting up of structures for private individuals

construction of fortified towns and of works for general use in public places

Defensive; the planning of walls, towers, and gates, permanent devices for resistance against hostile attacks

Utilitarian purposes; under utility, the provision of meeting places for public use, such as harbours, markets, colonnades, baths, theatres, promenades

Religious; the erection of fanes and temples to the immortal gods

Vitruvius ; The Departments of Architecture

BUILDINGS

The putting up of structures for private individuals

construction of fortified towns and of works for general use in public places

Defensive; the planning of walls, towers, and gates, permanent devices for resistance against hostile attacks

Utilitarian purposes; under utility, the provision of meeting places for public use, such as harbours, markets, colonnades, baths, theatres, promenades

Religious; the erection of fanes and temples to the immortal gods

All these must be built with due reference to:
-durability,
-convenience
-beauty.

Durability will be assured when foundations are carried down to the solid ground and materials wisely and liberally selected.

Convenience when the arrangement of the apartments is faultless, when each class of building is assigned to its suitable and appropriate exposure.

Beauty when the appearance of the work is pleasing and in good taste, and when its members are in due proportion according to correct principles of symmetry.

يقسم فن البناء الى جزأين: الاول انشاء المحصنة والاعمال المتصلة بالاستخدام العادي في الاماكن العامة . والثاني: اقامةمنشات الافراد.
هناك ثلاثة اصناف من الابنية هي : الدفاعية والدينية والمرافق . **وجب بناء كل ذلك مع الاهتمام بمراعاة المتانة والملاءمةوالجمال .**

Architecture from Renaissance to Industrial Revolution

Renaissance Architecture - 1400-1500

Themes : Individualism, craftsmanship

Characteristics :

-Structures as works of art rather than structural necessities.

-Symmetry and balance,

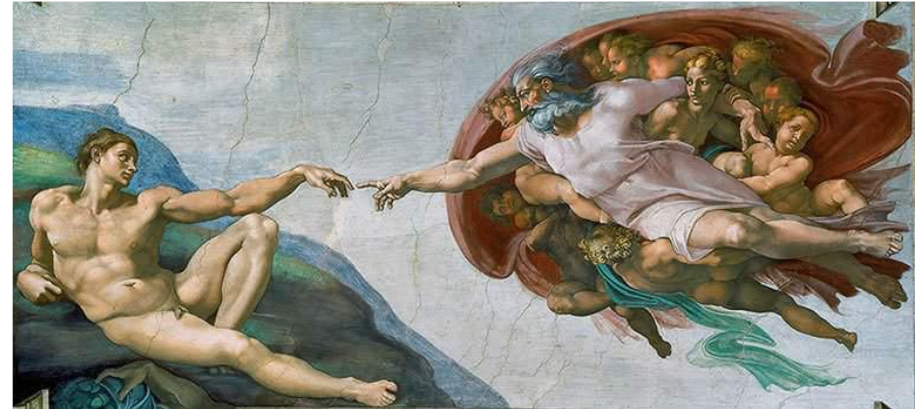-Repetition of elements.

-Attention to proportion

Areas of Influence: Italy

Architects and Artists : Leon Alberti,Michelangelo

Word Association: intellectual, "man is the measure"

Villa Capra - Villa Rotonda, Vicenza (1550)

Sistine Chapel, The Creation of Adam

Baroque Architecture -1600-1750

Themes : Council of Trent insisted on music, painting, architecture and sculpture **to enhance religious devotion.**

Characteristics : The term baroque means an irregularly shaped pearl. Seen as odd, irregular – vs. clarity, order, balance, logic of "pure classicism (Renaissance)".

Areas of Influence: Spain, Rome

Architects and Artists : Bernini

Word Association: Optical illusion,Combinations of curved and straight lines and Oval instead of circular

Renaissance = Composition and order VS Baroque = Sensual Space

St. Peter Church and Piazza, Vatican city , works of Bernini (1626)
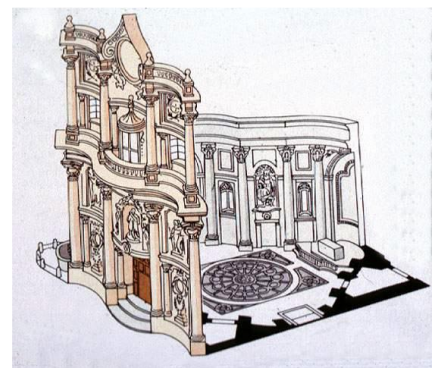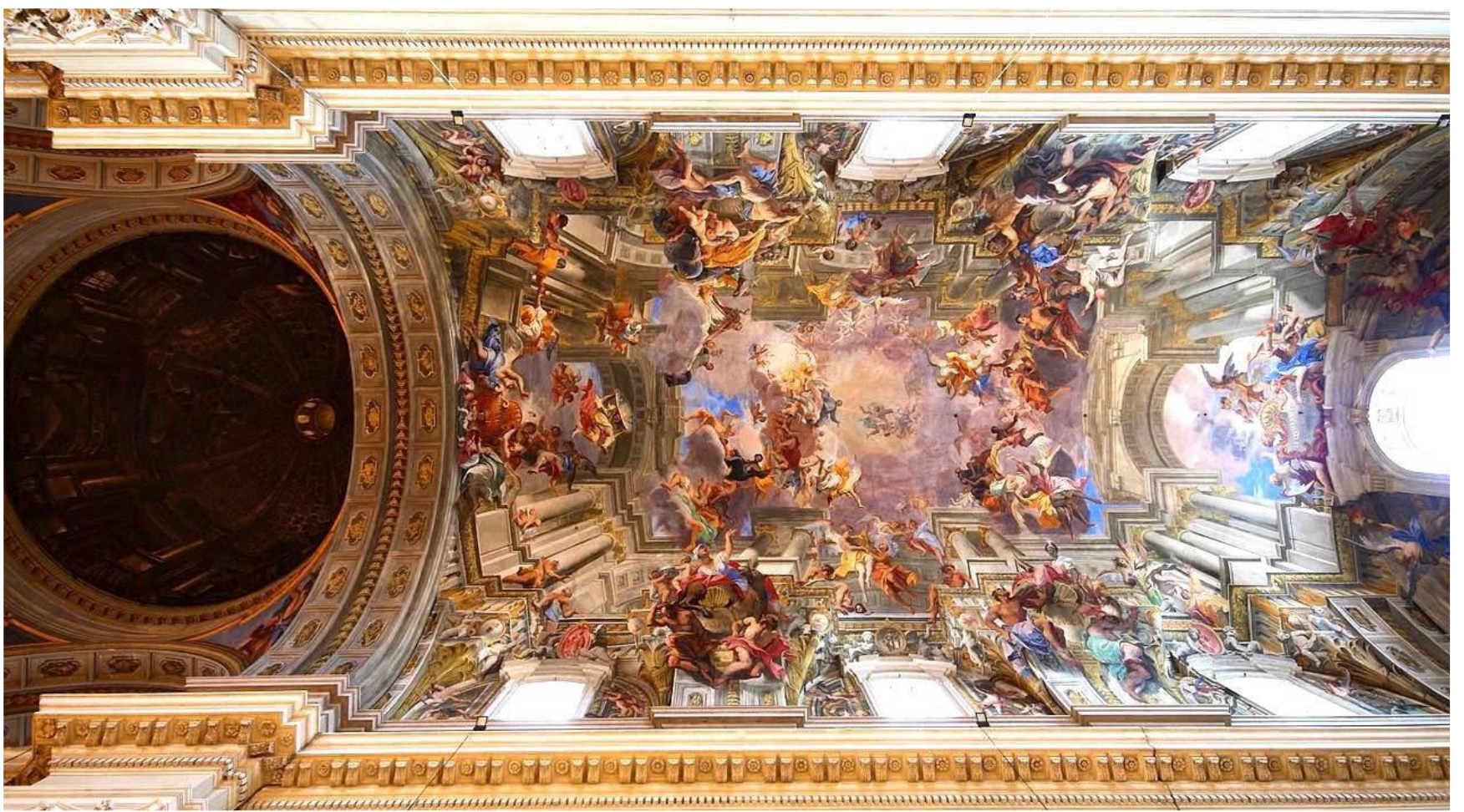
ceilings of baroque churches dissolved in painted scenes, presenting vivid views of the infinite

Rococo Architecture -

Began in France in the mid-1700s

Themes : Rococo is a delicate version of Baroque architecture. developed in the early 18th century in France **as a reaction against symmetry and strict regulations .**

Instead of religious themes, it's aristocracy

Characteristics : Rococo art and architecture was **ornate** and made strong usage of gold, creamy, pastel-like colors (or light colors).

Areas of Influence: France and Austria

Architects: Leon Alberti,Michelangelo

Word Association: ornate , self-indulgence

Princesse Salon, Hotel de Soubise (1732-1745)

Towards the end of the 18th century, Rococo started to fall out of fashion, and it was largely replaced by **The Neoclassic style.**

Neoclassical Architecture - 1750 –1900

-Neoclassical architecture emerged out of two different developments that radically transformed the relationship between man and nature – **Man's dominance over nature and separation ;** sudden increase in man's capacity to exercise control over nature

A fundamental shift in the nature of human consciousness in response to major changes taking place in the society – this gave birth to a new cultural formation – **the decline of aristocracy and rise of bourgeoisie** (The bourgeoisie is the social class, equivalent to the middle or upper middle class).

Musique dans les Tuileries (Music in the Tuileries), Edouard Manet, Depiction of the Aristocracy

Neoclassical Architecture - 1750 –1900

-The overelaboration of architectural language in the rococo interiors of the French aristocrats in addition to enlightenment **compelled the architects of the 18ᵗʰ century to search for a true style through a precise reappraisal of antiquity. (إعادة تقييم العصور القديمة)**

-Neoclassicism was not simply a replica of the classical thought however it was based on the rules and principles.

The Colosseum

Le Roy's drawings of Greek ruins
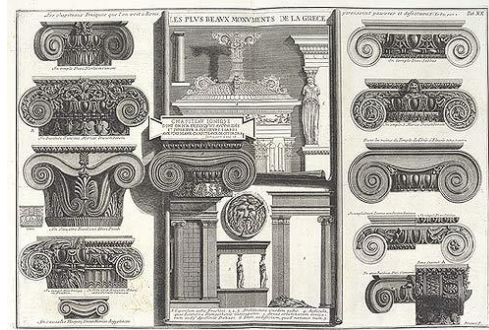
Neo-classicism **was symptomatic of a desire to the perceived 'purity' of the arts of Rome and the 'ideal' Greek arts** and **to a lesser extent to the 16th century Renaissance Classicism.**

The Colosseum is the most famous remnant of ancient Rome. Also called the Flavian Amphitheater, it was built under three successive emperors of the Flavius family (Vespasian, Titus, and Domitian) in the years 76 to 92 CE. Today many sports stadiums can trace their oval design to this masterpiece of Roman architecture.

Contributors to Neo-Classical Architecture

Paintings by Giovanni Battista Piranesi

Giovanni Battista Piranesi
Italian draftsman, printmaker, architect, and art theorist. His large prints depicting the buildings of classical and postclassical Rome and its vicinity contributed considerably to Rome's fame and to the growth of classical archaeology and to the Neoclassical movement in art.

Claude Perrault
Claude Perrault was a French architect, best known for his **participation in the design of the east façade of the Louvre in Paris**.

Andrea Palladio
Andrea Palladio was a sixteenth-century architect .He was a late Renaissance architect who lived in more stable and affluent times than his predecessors, and produced many beautiful villas based on the architecture of ancient Rome. The general characteristics are large porticos, often all four sides, and a huge domed central atrium. The arrangement was more for show than comfortable living.

Claude Perrault colonnade du louvre

French architect Claude Perrault is best known as the architect of the eastern facade of the Louvre, known as the Colonnade.

Perrault's architectural career was actually inspired by the translation he had started of the ten books of Vitruvius, the only surviving Roman work on architecture, into French.

When King Louis XIV decided to rebuild the Louvre in the 1660's, Perrault collaborated with the famous architects Louis Le Vau, Charles Le Brun and Francois d'Orbay to submit a worthy design for competition. **Using the influence of Vitruvius, they designed a structure that used a series of paired weight-bearing Corinthian columns, with pavilions at each end, departing from the popular decorative Italian style.**
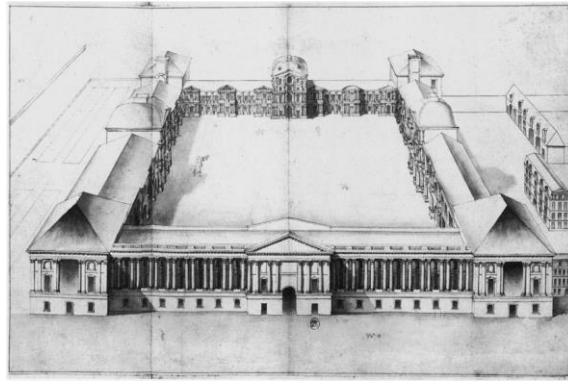
Claude Perrault, perspective bird's-eye view of the Cour Carrée (Louvre), from the east, 1663

Place du Louvre, facing the church of Saint-Germain-l'Auxerrois, is a sumptuous façade. Called the *Colonnade de Perrault*

Andrea Palladio

Villa Capra "La Rotonda" is a Renaissance villa just outside Vicenza, northern Italy, designed by Andrea Palladio.

The design is for a completely symmetrical building having a square plan with four facades, each of which has a projecting portico. The whole is contained within an imaginary circle which touches each corner of the building and centres of the porticos.

Villa Capra "La Rotonda"
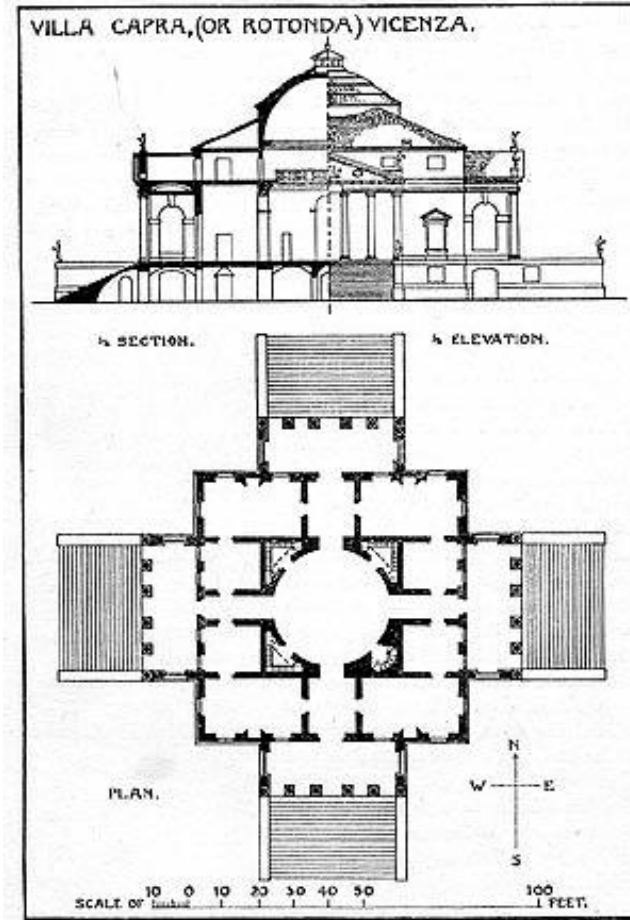
Palladio's work was based on Symmetry , perspective and values of the formal classical temple architecture of the Ancient Greeks and Romans leading us to what's called **Palladianism**

Villa Badoer

Villa Foscari

In England the rococo had never been fully accepted, the redemption of the excess of the baroque came from the Palladianism

Palladianism
Palladio's vision was brought to England in the early seventeenth century. Palladianism was an approach to architecture strongly influenced by the sixteenth century architect Andrea Palladio.
Palladian designs were based on the symmetry and perspective of classical architecture, particularly the temples of the Ancient Greeks and Romans. It was characterized by proportions based on mathematics rather than ornament and its classical facades.

Some of the defining features of Palladianism include:
•Corinthian columns.
•Decorative motifs such as masked faces and scallop shells.
•Pediments used over doors and windows, both external and internal.
•free-standing stones representing the head and upper torso of the Roman god Terminus, on top of a pillar.
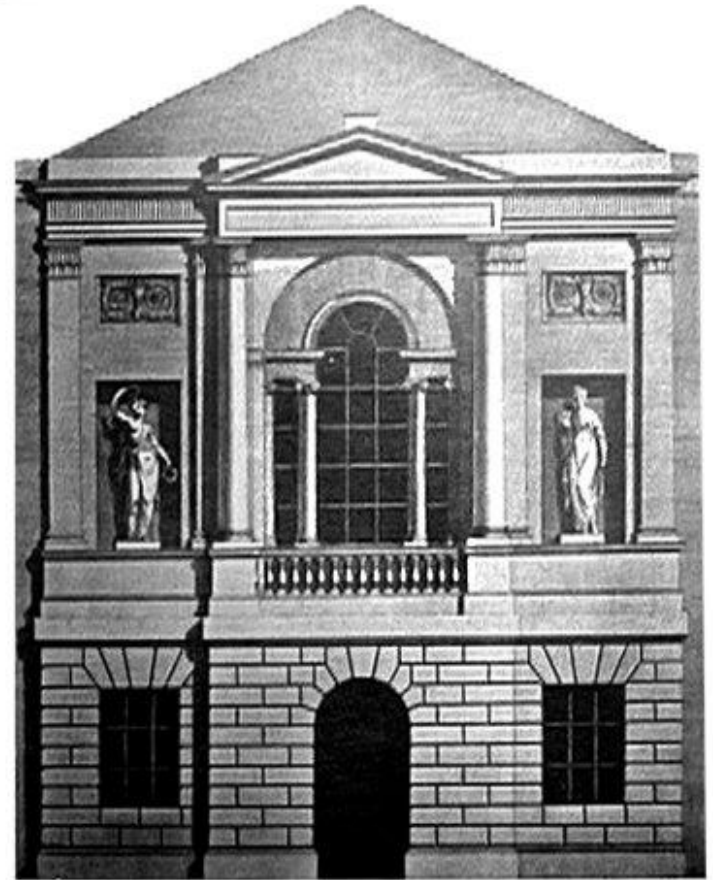
PALLADIAN WINDOW ABOVE DOOR
20 St James's Square, London
Rear elevation

Never a plagiarist, the strong influence of Palladio's ideas can, however, still be seen in **Inigo Jones** projects for the Royal family: the Queen's House at Greenwich, Banqueting House in Whitehall, and Queen's Chapel in St James', London. Jones the first to employ Vitruvian rules of proportion and symmetry in his buildings.

Queen's Chapel in St James', London.

The Queen's House at Greenwich
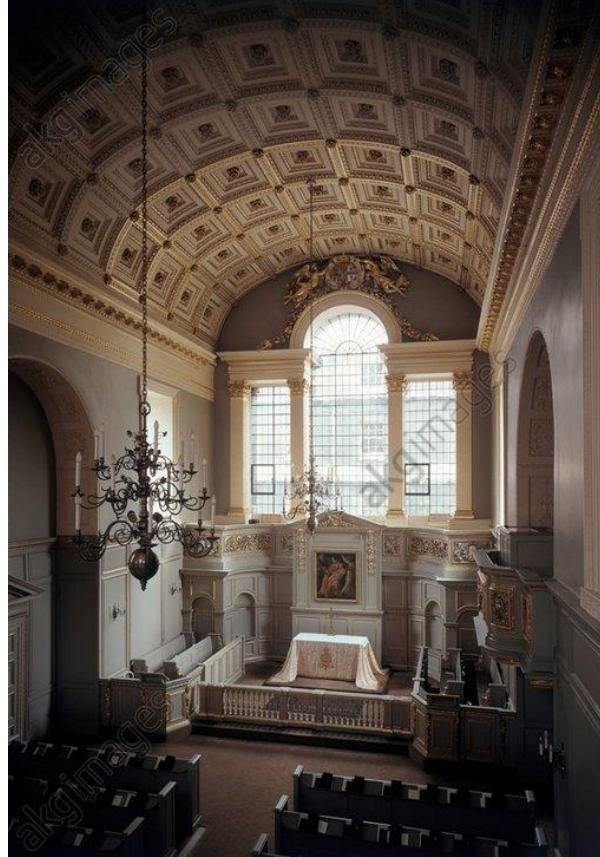
Neoclassicism Main Characteristics

Neoclassicism Main Characteristics :

- Massive scale.

- Supported with tall columns.

- Built to achieve classical perfection.

- Lack of ornamentation and decorations are kept to a minimum.

- Remarkable roofing.

- Gardens around buildings follow geometric patterns.

Basilica in Baltimore

Neoclassicism Main Characteristics

•**Massive scale**
•**Supported with tall columns**. These pillars came in predominantly three varieties—Ionic, Doric, and Corinthian—each with their own variations on style and form.
•**Built to achieve classical perfection** (from Greeks and Romans).

Name: Madeleine Church

Year: 1842

Location: Paris, France

Architect: Vinion

Neoclassicism Main Characteristics

•**Massive scale**
•**Supported with tall columns**.These pillars came in predominantly three varieties—Ionic, Doric, and Corinthian—each with their own variations on style and form.
•**Built to achieve classical perfection** (from Greeks and Romans).

Pantheon - Rome

St. Genevieve 's church –Paris

Neoclassicism Main Characteristics

•**Massive scale**

•**Supported with tall**. These pillars came in predominantly three varieties—Ionic, Doric, and Corinthian—each with their own variations on style and form.

•**Built to achieve classical perfection** (from Greeks and Romans).

•**Lack of ornamentation**: Both the exterior and interior design of neoclassicism is characterized by its lack of extravagance or ornamentation. Architects of the period sought to respond to the garish and gaudy rococo style by emphasizing form and flatness over flashiness.

Name: Drama Theater

Year: 1821

Place: Berlin, Germany

Architect: Karl Schinkel

Neoclassicism Main Characteristics

•**Massive scale**

•**Supported with tall columns**.These pillars came in predominantly three varieties—Ionic, Doric, and Corinthian— each with their own variations on style and form.

•**Built to achieve classical perfection** (from Greeks and Romans).

•**Lack of ornamentation**: Both the exterior and interior design of neoclassicism is characterized by its lack of extravagance or ornamentation. Architects of the period sought to respond to the garish and gaudy rococo style by emphasizing form and flatness over flashiness.

Name: National Museum

Year: 1828

Place: Berlin, Germany

Architect: Karl Schinkel

Neoclassicism Main Characteristics

•**Massive scale**

•**Supported with tall columns**

•**Built to achieve classical perfection**

• **Lack of ornamentation**.

•**Remarkable roofing**: Neoclassical roofs are among the most notable attributes these buildings possess. Their interior rotundas—circular rooms with domelike roofs—provide an opportunity to gaze upward and see the height of a building from the inside. On the outside, you'll often see triangular structures called pediments as well as friezes, which are long, rectangular bands featuring carvings and sculptures.

Panthéon, in Paris by the architect Jacques-Germain Soufflot

Neoclassicism Main Characteristics

•**Gardens around buildings follow geometric patterns.**

Monticello building in the US

Visionary Generation of architects - **Claude Nicholas Ledoux** And **Etienne Louis Boullee**

Visionary Generation of Architects - Claude Nicholas Ledoux

Claude-Nicholas Ledoux (March 21th, 1736 – November 18th, 1806) was one of the earliest exponents of French Neoclassical architecture. **He used his knowledge of architectural theory to design not only in domestic architecture but town planning**.
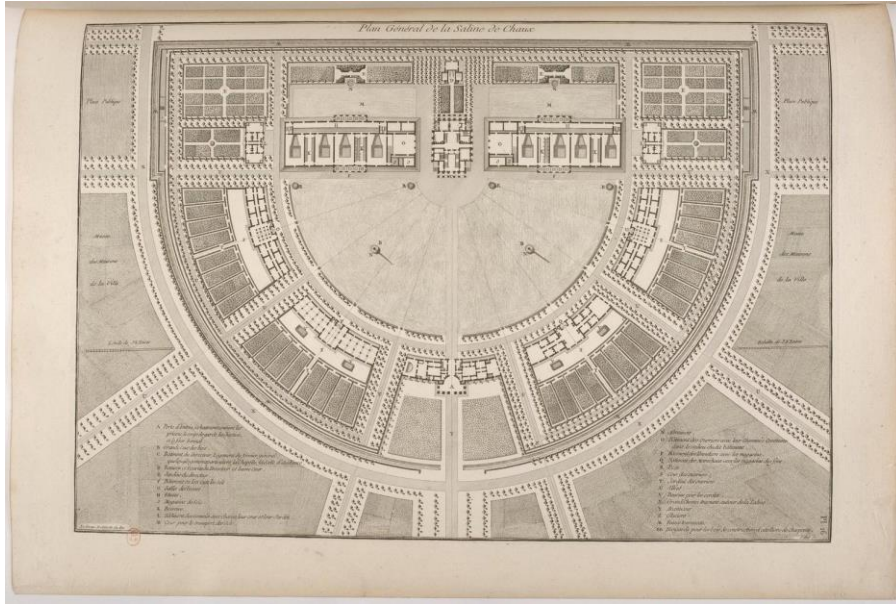
Saltworks of Salins-les-Bains

Ideal city of Chaux.

Saltworks of Salins-les-Bains

In 1775-1778, the architect had designed and built the Royal Saltworks (*Les Salines Royales*) at Arc-et-Senans in the territory of the massive forest of Chaux, in France , **a complex of buildings which would become the starting point for the project of a utopian city.**

The built saline works are shaped in the form **of a semicircular open air plan with ten functional buildings arranged along an arc and with the director's house standing at the center.**

Other buildings host ;
-The forging mill
-The workshops for the extraction of salt
-The administrative functions
-The workers' houses.

Plan Général de la Saline de Chaux

Saltworks of Salins-les-Bains

Saltworks of Salins-les-Bains

The main entrance of the site, at the axis of the semicircle, is marked by massive doric columns which frame the entrance of the director's house from the distance. Each building has a public façade oriented toward the center, and a private one, where the workers' bathrooms were located, connected to the vegetable gardens.
The royal saltworks closed in 1790 just after the French Revolution.

Saltworks of Salins-les-Bains

Director's House

Entrance

The language developed is a reinterpretation of the classical combined with elements completely invented by Ledoux to suit the industrial nature of the building, like the massive rusticated columns, and the references to local architecture in the form of rustic roofs.

Ideal City of Chaux

The vast, semicircular complex was designed to permit a rational and hierarchical organization of work and was to have been followed by the building of an ideal city, a project that was never realized. **The Ideal City takes the plan of the saltworks as a central point for its development, embodying an idea of communal life joined to that of a new industrial urbanism**. In the "Ideal city of Chaux" the semicircle becomes a circle and the ten buildings of the Saltworks are completed by many others.
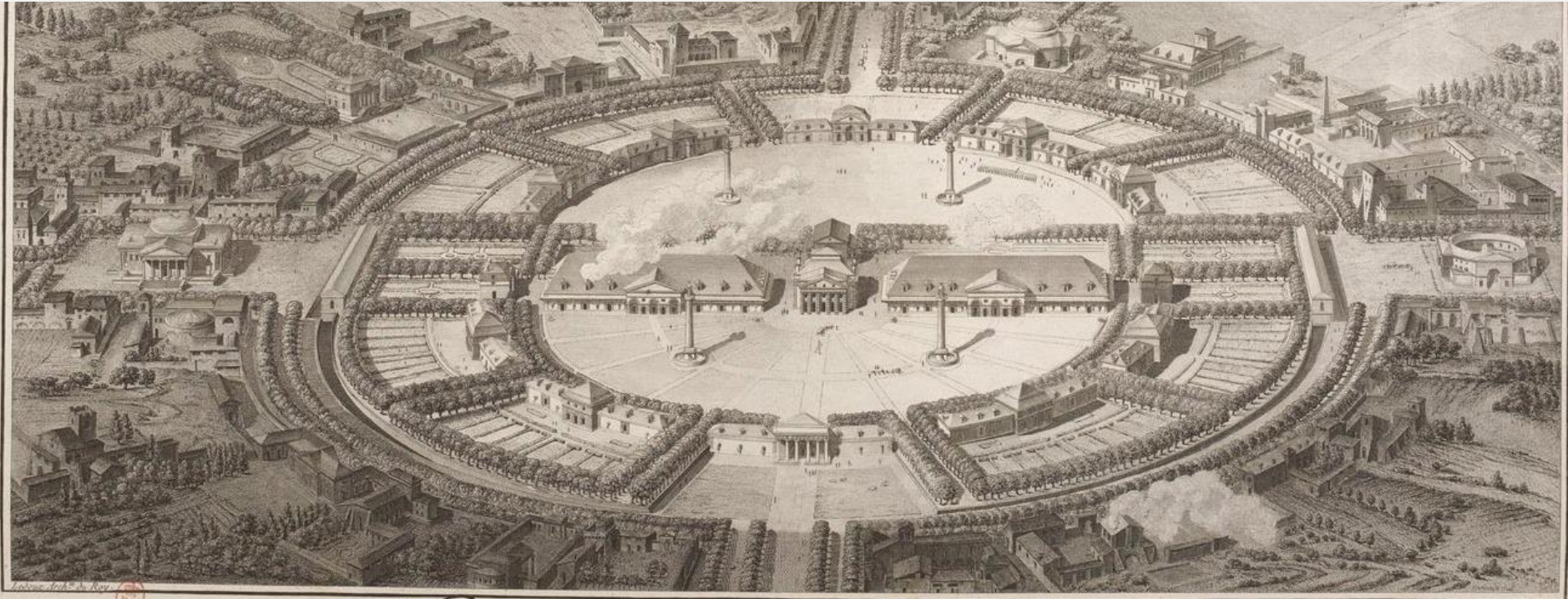
Vue perspective de la Ville de Chaux

Ideal city of Chaux.

Visionary Generation of Architects - Étienne-Louis Boullée

(born February 12, 1728, Paris, France—died February 6, 1799, Paris), French visionary architect, theorist, and teacher. The distinguishing aspect of Boullée's mature work is his abstraction of the geometric forms suggested by ancient works into a new concept of monumental building that would possess the calm, ideal beauty of classical architecture while also having considerable expressive power.
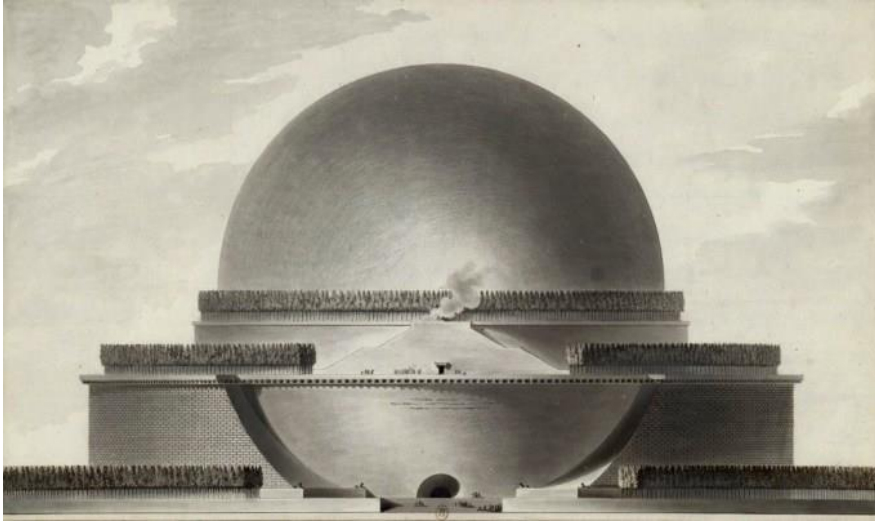
Cenotaph of Newton
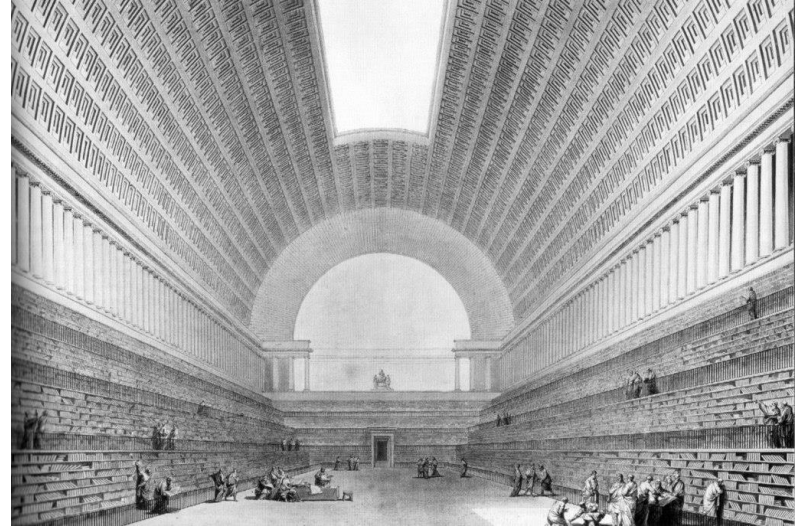
French National Library in 1785

Visionary Generation of Architects - Étienne-Louis Boullée

The 'Cenotaph to Newton' was a proposed resting place for the great scientist, planned 60 years after his death, although it was never made.

No building, he observed, "calls for the Poetry of architecture" more than a memorial to the dead. Believing that architecture, like all art, should ultimately serve to enlarge our sense of aliveness, and that we are never more alive than when we are rooted in our creaturely senses, Boullée insisted that the key to this sense of grandeur lies in applying the principles of nature's mathematics with poetic content.
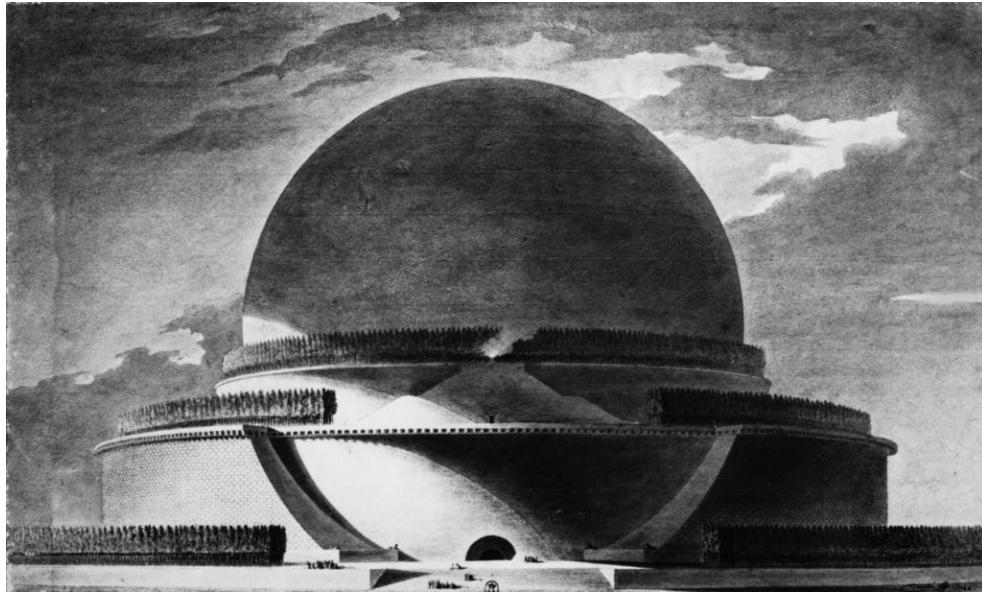
Cenotaph to Newton

At 500ft (150m), The cenotaph would have been the tallest built structure in the world, overshadowing the then tallest building – Strasbourg Cathedral at 466ft (142m) – and the Great Pyramids of Giza at 455ft (139m).
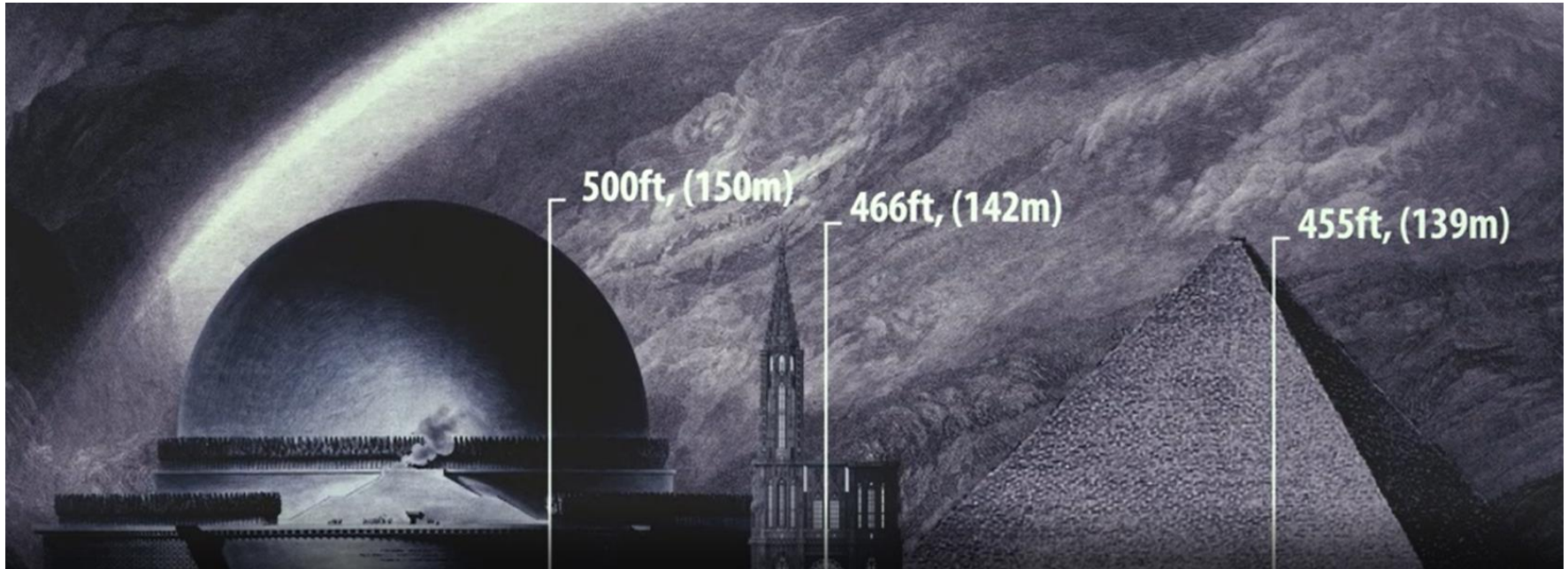
During the day, **holes** in the sphere
direct light into the vast chamber -

transforming the interior
into a **planetarium**.
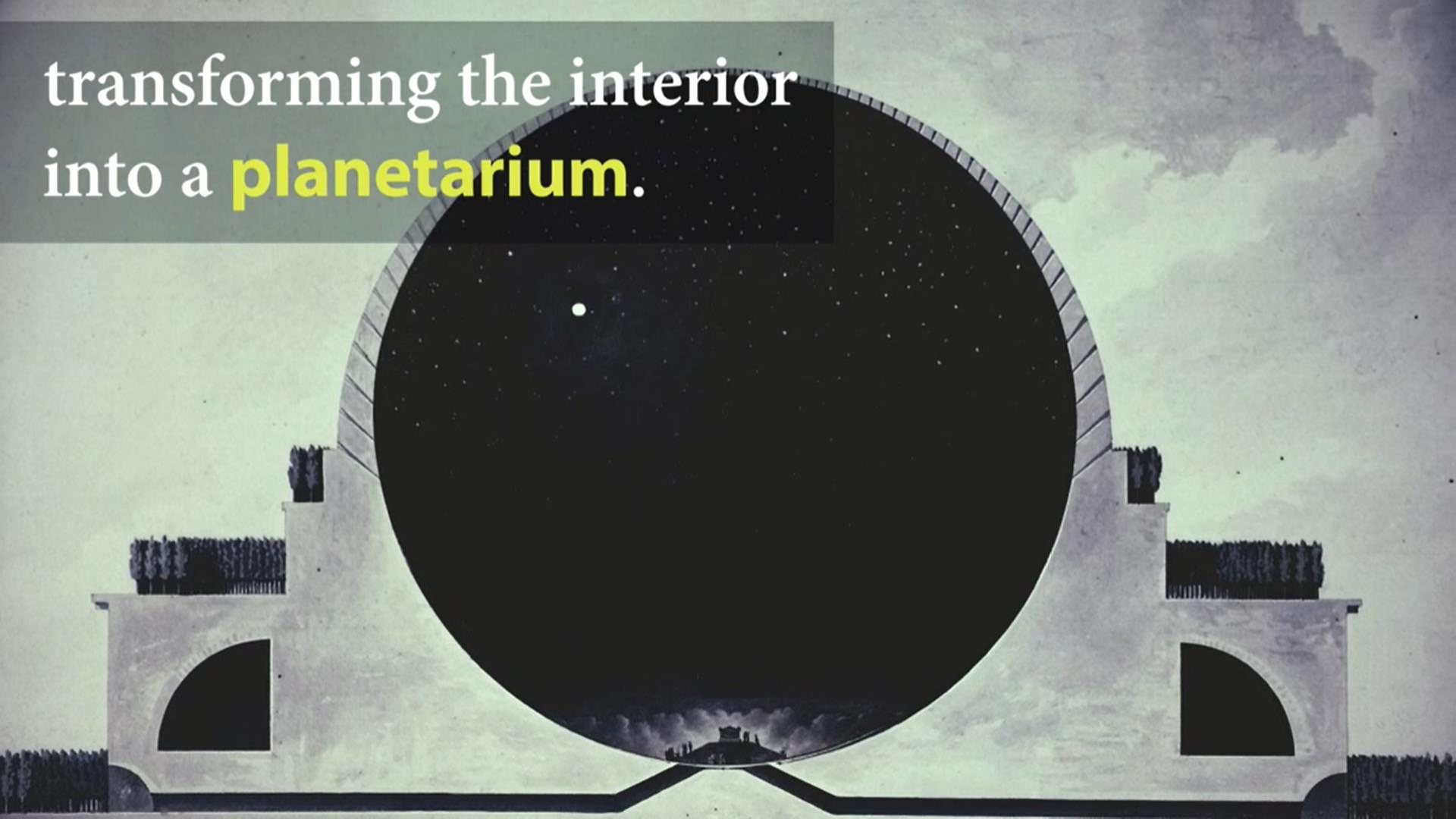
Newton's **sarcophagus** rests at its base, representing the **'centre of gravity'**.
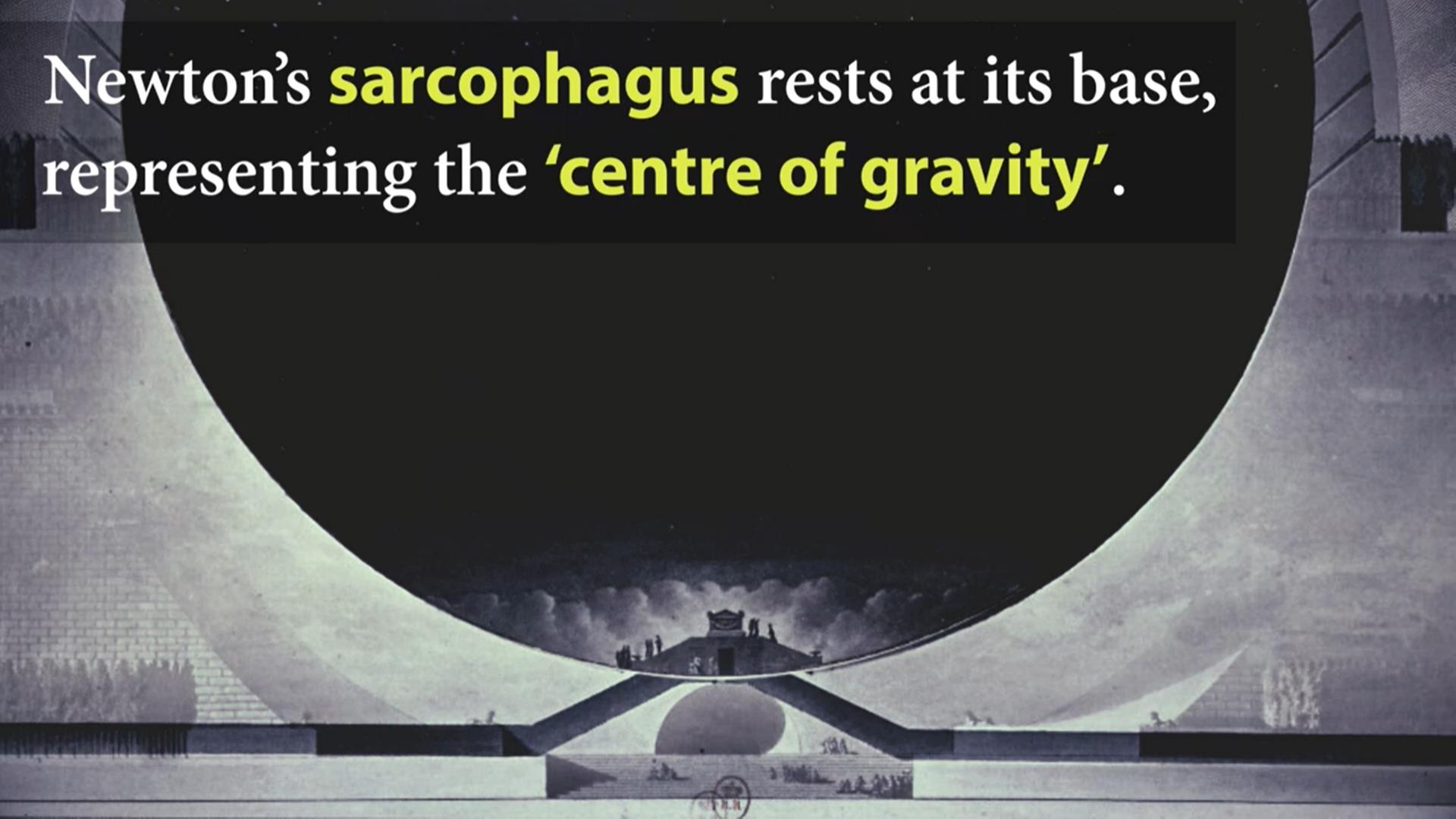
By night the sphere would have been lit with a **solitary light** -

In the mid-1780's a mature Etienne-Louis Boullée was commissioned to redesign the royal library of the French monarchy. The scheme was never built. The design for the main reading room featured a vast, barrel-vaulted ceiling and a modern shelving arrangement: stacked galleries of books over flat wall-cases. These seemingly endless bookcases were open and easily browsable, in dramatic contrast to the earlier medieval system of chaining that bound both books, and readers, to a specific location.

Visitors are free to wander about and converse in small groups, but there is no provision of study desks or chairs for extensive research in this idealized environment.
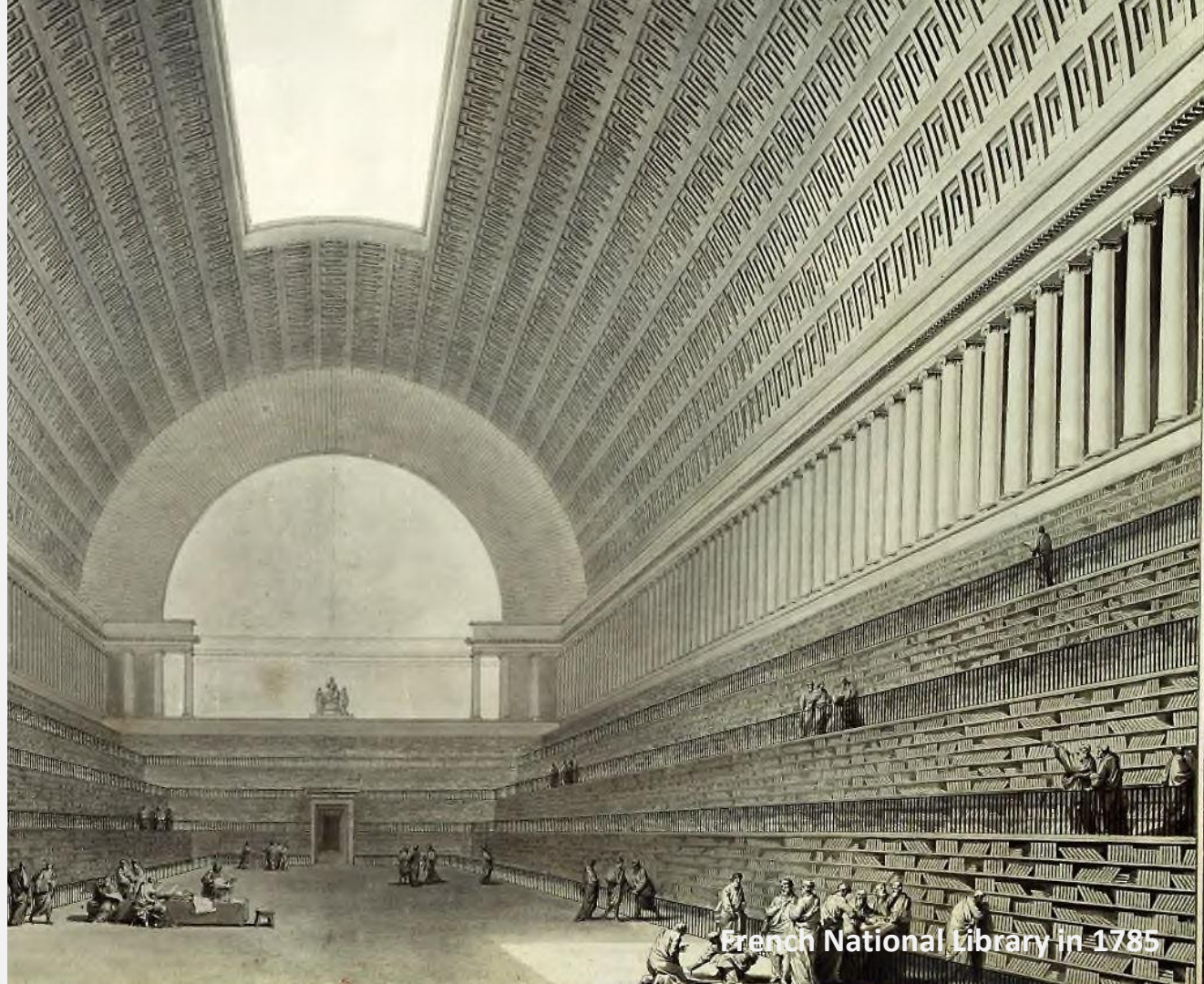
French National Library in 1785

Architecture from Renaissance to Industrial Revolution

Eclecticism

Late 19th century.

"The word eclecticism is derived from the Greek word eklektikos, which loosely means "to choose the best."

While the term was often used in philosophy—i.e., picking only the best doctrines from a range of established schools of thoughts to create one's own—the concept transitioned well into architecture in the late 19th and early 20th centuries."

Conceptual approach that focuses on multiple theories, styles, and ideas. It lacks consistency- describes a single work of elements from different historical styles.
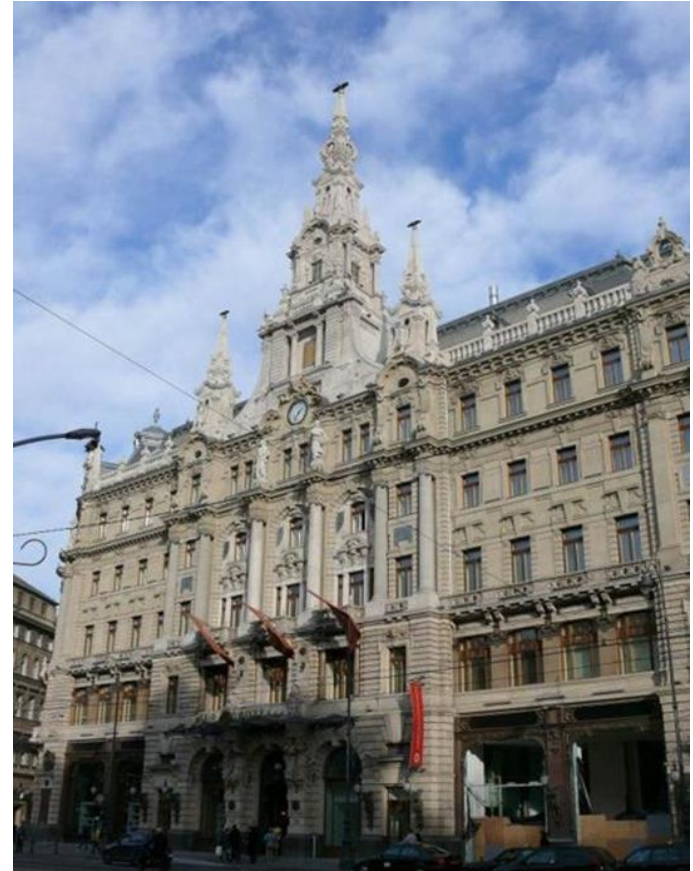
Name: New York Palace. Location: Budapest, Hungary

The Palace of Belosekiye

Gothic Architecture

12th-16th century
A style of architecture, which grew in Europe during the late medieval period. It was succeeded by Renaissance Architecture Gothic style has flourished during the **high and late medieval period -** 12th to 16th century (1150 - 1450)
- Started in **France** about 1140, then spread to the rest of Europe.

- The term "Gothic Architecture" describe
the culture that was considered barbaric or even related to vandals

Main Characteristics:

1.   Structural

2.   Visual

3.   Symbolic

Main Structural Features:

1.   Rib Vaulting

2.   Pointed Arches

3.   Flying Buttresses

Main Characteristics

1. Structural:

   Emphasizes the skeletal stone structure of Gothic Architecture- pure engineering logic.

2. Visual:

   Interpreting Gothic Architecture as part of the visual arts. Emphasis on the use of lines; which multiplies and takes over visible interior structure- this transforming it from an inert mass into an elegant configuration of lightweight, dynamic form.
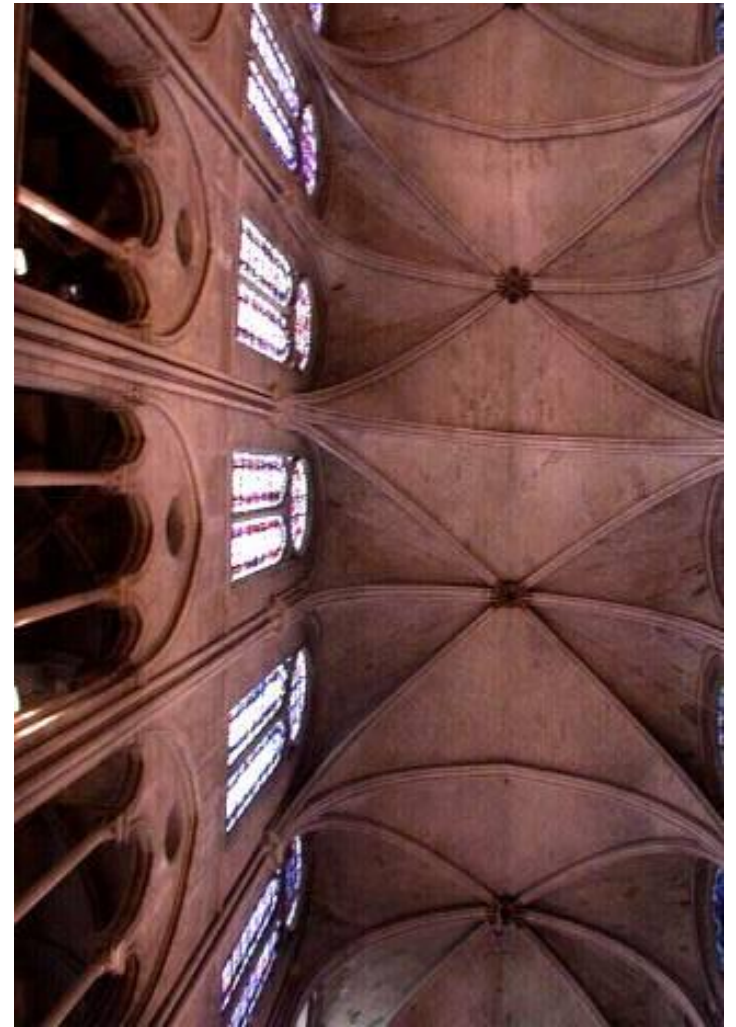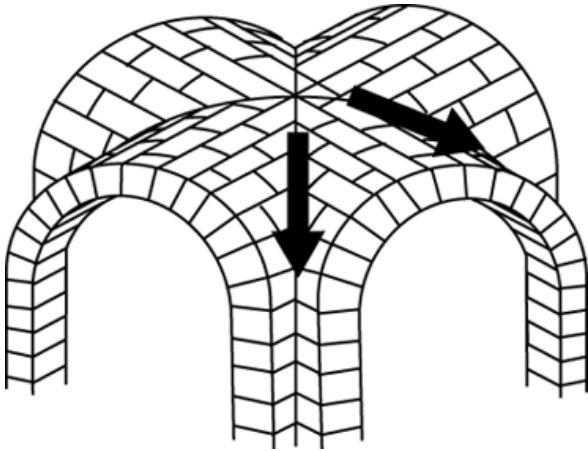
3. Symbolic

   Not just for structural or visual purposes. Religious currents achieved symbolic expression in cathedrals.
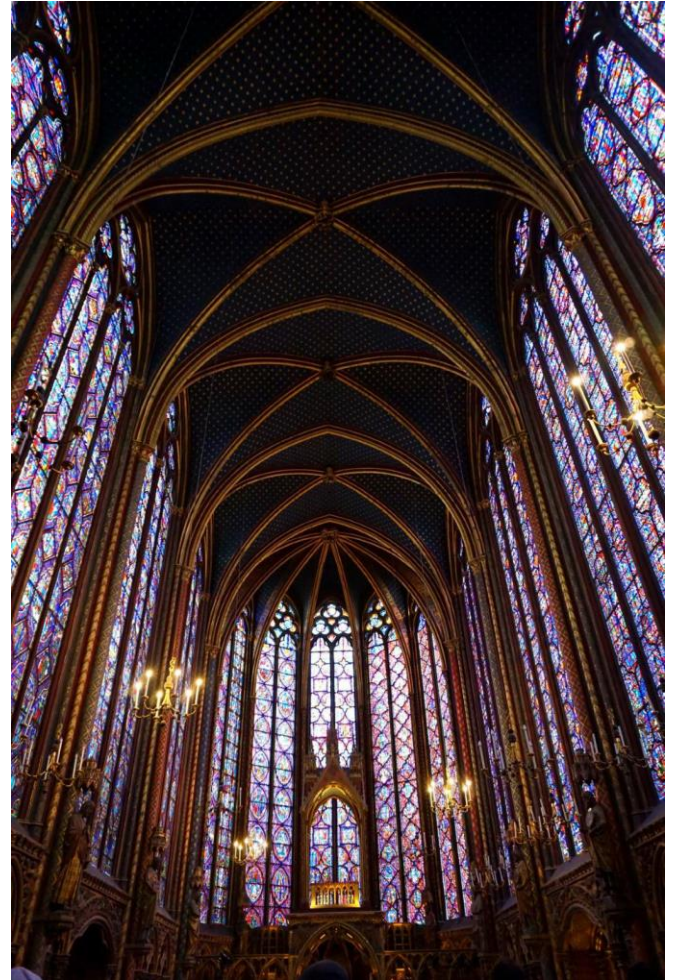
Main Structural Features:

1. **rib vault** or **ribbed vault** is any vault reinforced by masonry ribs.

The term is an organic metaphor, showing the role of ribs in anatomy as the body's skeletal structure supporting connective tissue.

Main Structural Features:
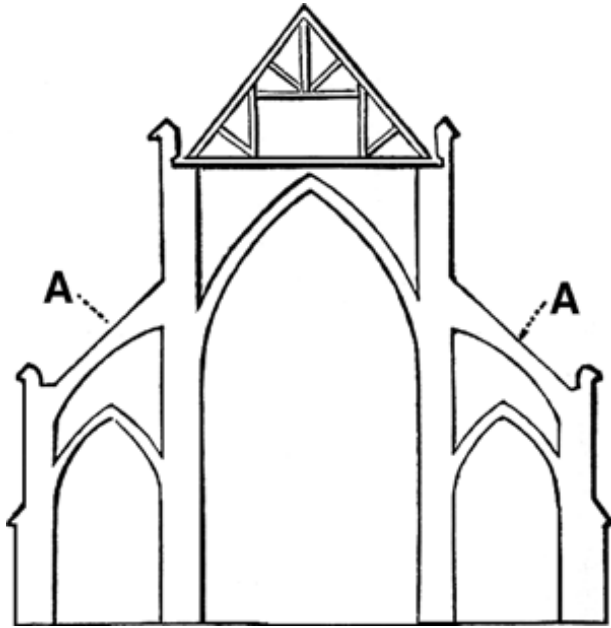
2. Pointed Arch:

1. Pointed arches look lighter-pointing upward rather than sinking downward.

2. A pointed arch exerts less thrust than a semi-circular one of the same span
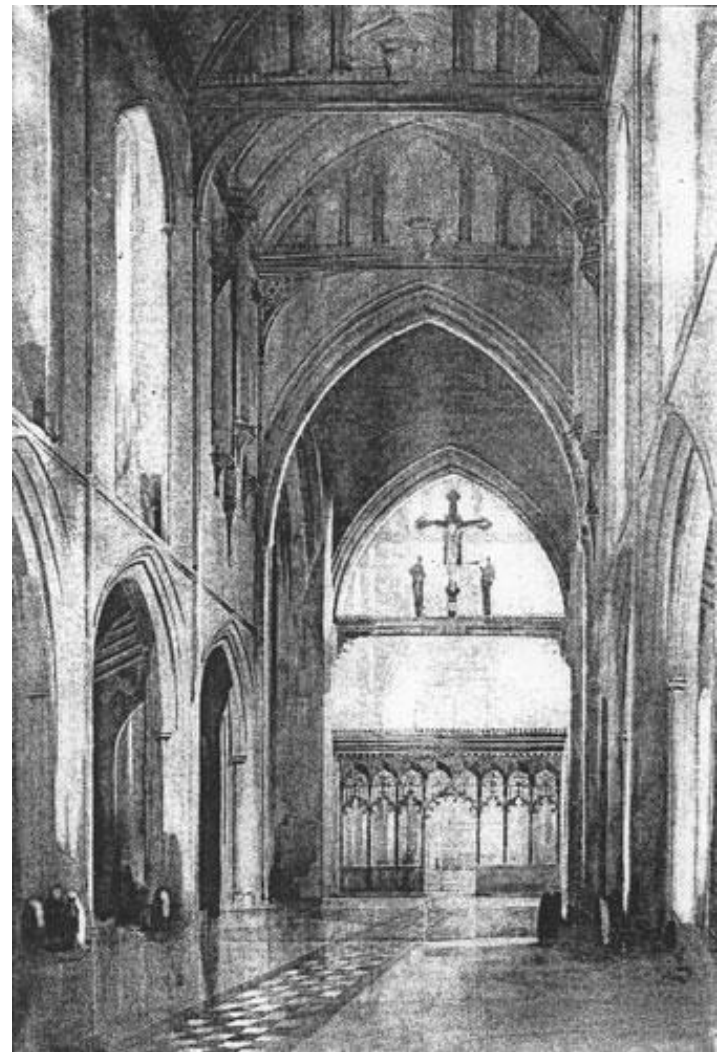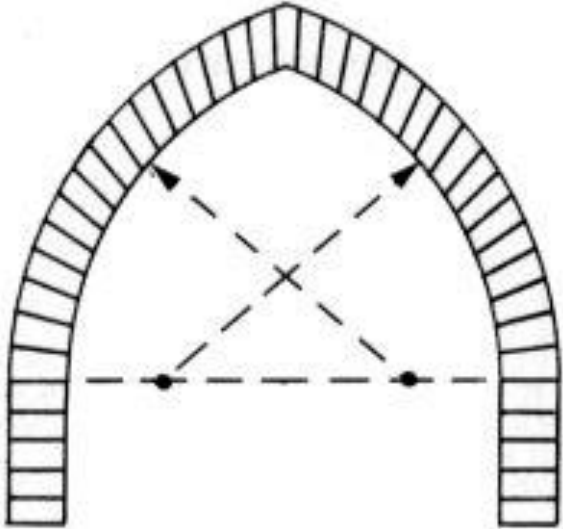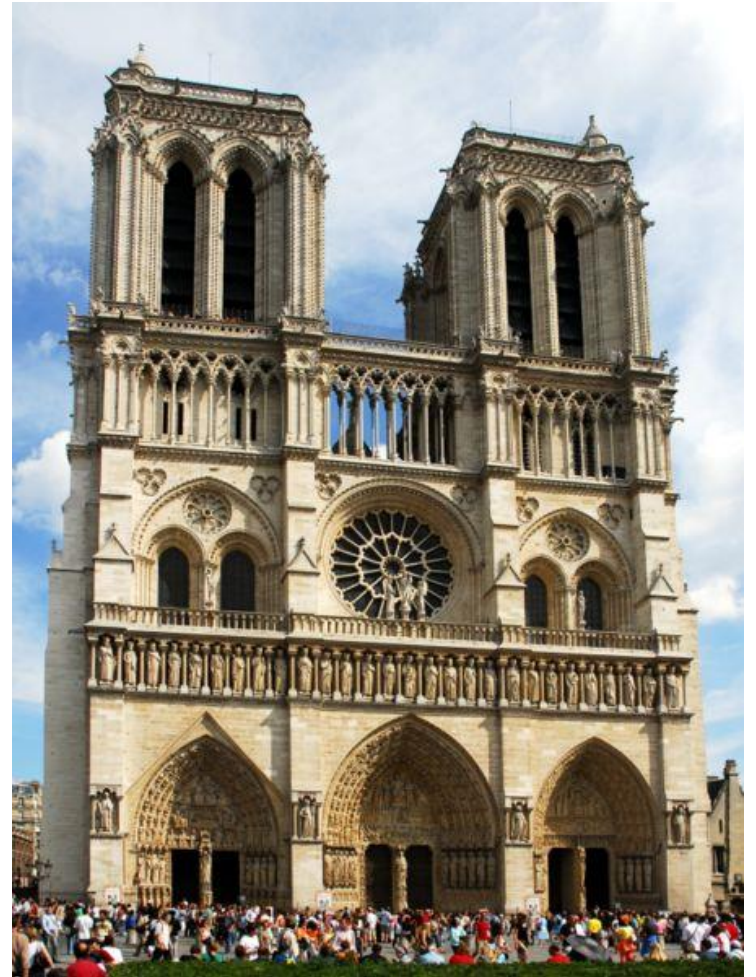
Main Structural Features:

3. Flying Buttress

Used to transmit the thrust of a vault across an intervening space to a buttress outside the building.

Notre Dame de Paris

One of the best examples on Gothic Architecture.

Architecture from Renaissance to Industrial Revolution

Romanticism

Also referred to as **Neo-Gothic** or **Gothic Revival**

-It is an architectural movement which originated in **mid 18th century** England (West Europe).

-Represented strong emotion as a source of aesthetic experience.

- A reaction towards the constant copying of previous styles such as the classical style. **They wanted to become free of Roman and Greek Architecture.**

-Romanticism is seen to copy Gothic Architecture in the same way neo-classical style copied classical architecture.

Name: Hungarian Parliament Building (1870)

Location: Budapest, Hungary

Architect: Imre Steindl

Gothic Architecture was quite hard to just copy. That's one of the reasons that Romanticism was different.

Symmetry was lost. There are no definite rules for this style, therefore its architecture is not very coherent.

Many Neogothic buildings feature **castellation**: crenellated walls and towers in imitation of medieval castles .

Indeed, heavily castellated Neogothic buildings are often referred to as "castles", even though they never served a defensive purpose. Among them was **Strawberry Hill** .

Strawberry Hill

The Gothic Style was used here for its picturesque and romantic qualities without regard for its structural possibilities or original function.

Another early example of the tendency toward ornamentation and decoration was Fonthill Abbey, designed by James Wyatt, a country house with a tower 270 feet (82 metres) high.

Nothing could more clearly illustrate both the impracticality of usage and the romantic associations with medieval life.

Font Hill Abbey

Name: The Oxford Museum (of Natural History)

Year: 1855-1860

Location: Oxford, England

Architect: Thomas Deane & Benjamin Woodward

The Industrial Revolution

The Industrial Revolution

was a period from the 18th to the 19th century, **where major changes in agriculture, manufacturing, mining, transportation, and technology had a profound effect on the socioeconomic and cultural conditions of the times.** It began in the United Kingdom, then subsequently spread throughout Europe, North America, and eventually the world.

Major turning point - average income and population began to exhibit unprecedented sustained growth.
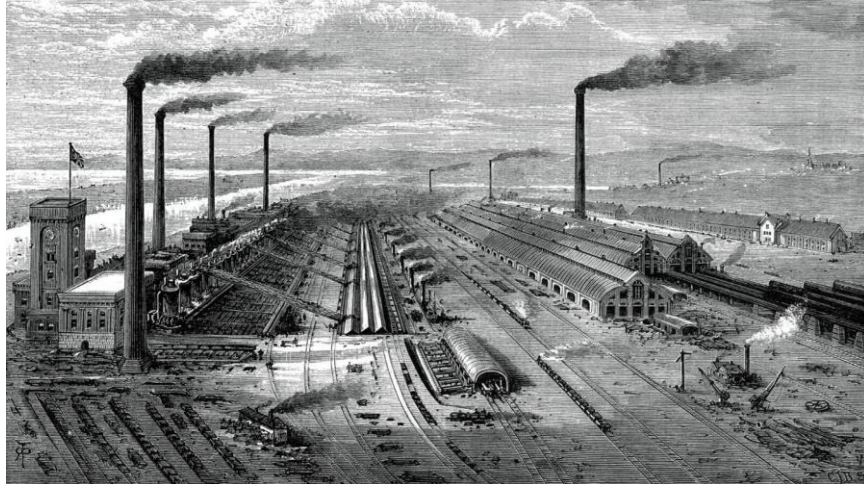
New Industrial world: New Architectural Materials

-Metals: have high tensile strength, unlike masonry materials. There was very little use of metals before industrial revolution for many reasons.

-New construction techniques required – large span structures, wooden structures were highly flammable hence were substituted by iron/steel structures.

-The development of the scientific thought ; New socio-spatial needs – opera houses, theatres, exhibitions.

-Split between aesthetics, traditions and new technologies.

The Iron Bridge, Shropshire, England

Aesthetics and technology:

The Eiffel tower was built from the year 1887-1889 by Alexandre-Gustave Eiffel in Paris .

It was **built to be one the main attractions at the Paris World's Fair in 1889**. as a dramatic demonstration by the French of their mastery of upcoming construction technology.

 The tower was much criticized by the public when it was built, with many calling it an eyesore.