

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

**O. M. BEKETOV NATIONAL UNIVERSITY
of URBAN ECONOMY in KHARKIV**

Methodological guidelines

for self-study

on the subject

“English”

(special course)

*(for 2nd year of full-time Bachelor degree students of the specialty
191 – Architecture and Town Planning)*

Kharkiv – O. M. Beketov NUUE – 2018

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UNIT 1

BYZANTINE ART OF BUILDING

TEXT 1 A

BYZANTINE ART OF BUILDING

The architecture of Byzantium, or Eastern Roman *Empire*, was the culmination of Early Christian architecture. This style developed after 30 BC, spread widely, and lasted throughout the Middle Ages until the fall of Constantinople to the Turks in 1453. Byzantine architecture is characterized by large *pendentive*-supported domes (pendentives being the chief "contribution of the Byzantine style to the architecture of the world), round arches and elaborate columns, richness in decorative elements, and colour.

The Byzantine style reached its *climax* in the reign of the Emperor Justinian (527-65). He built and rebuilt 26 churches, many hospitals, bridges, *aqueducts*, and fortresses.

The outstanding masterpiece of Byzantine church architecture is Hagia or Saint Sophia in Constantinople (now Istanbul). Originally built as a church by Emperor Constantine in AD 360; rebuilt in 532-7 by Anthemius of Tralles (assisted by Isidore of Miletus) and then again in 563 in a form very nearly as it is today; became a mosque in 1453 with the Turkish conquest of the city. Its plan may be defined as a Greek cross inscribed in a square (typically Byzantine), with a *narthex* at the west end. The chief feature is the huge dome, approximately 32.6 m in *diameter*, rising 56 m above the floor. It is carried on pendentives. There are half-domes at two ends which are, in turn, carried by smaller semidomed *exedra*. The interior surface of the *edifice* is richly decorated.

As early as the 5th century the Byzantine style began to influence architecture in Italy especially Ravenna, city of mosaics (St Giovanni Battista, St Croce, and the so-called Mausoleum of Galla Placidia). The basilican St Apollinare in Classe, Ravenna (c. 536-50), and the *octagonal* St Vitale, Ravenna (c. 526-47), are among the greatest and least altered of all Byzantine buildings. Later, Western buildings

began to show more radical departures from Byzantine *precedents* - e.g. St Marco, Venice, with its very rich marble-*clad* exterior.

The first phase of Russian architecture was Russo-Byzantine style from the 11th to the 16th centuries. It was derived from the Byzantine architecture of Greece. It is represented mainly by stone churches characterized by cruciform plans and multiple *bulbous* domes. Kiev was Russia's first Christian centre. The domed Cathedral of St Sophia, begun 1037, was the country's first great Byzantine church. This brick-domed basilica had 5 aisles, *terminating* at the east end in semicircular *apses*, with open *arcading* around the other three sides. A striking Russian feature was the construction and arrangement of the 13 *domes*, representing Christ and the 12 Apostles. In Moscow the Cathedral of St Basil the Blessed, in Red Square, is as fantastic in form as in decoration. It represents the culmination of the Russian Byzantine style.

Vocabulary:

Byzantine	[bɪ'zæntaɪn]	Візантійський
Empire	['empa(ɪ)ə]	імперія
pendentive	['pendənt]	парус свода, купола
climax	['klaɪmæks]	кульмінаційний пункт
aqueduct	['ækwədʌkt]	акведук
diameter	[daɪ'æmɪtə]	діаметр
edifice	['edɪfɪs]	будівля, споруда
basilica	[bæ'zɪlɪkə]	базиліка
octagonal	[ɒk'tæŋɡl]	восьмикутний
precedent	[prɪ'si:dnt]	попередній
clad	[klæd]	past и р. р. від <u>clothe</u> одягати, убирати, вкривати

bulbous	['bʊlbəs]	у формі цибулини
terminate	['tɜ:mneɪt]	завершувати, покласти кінець
apse	[æps]	апсида
arcade	[ɑ:'keɪd]	архіт. аркада; склепінчаста галерея
dome	[dəʊm]	купол, баня, склепіння
arrangement	[ə'reɪndmənt]	розташування

1. True or False

1. The Emperor Justinian was a great builder.
2. Isidore of Miletus and Anthemius of Tralles rebuilt Hagia Sophia during the reign of Justinian.
3. The least modified Byzantine structures can be found in Italy.
4. The Kievan Cathedral of St Sophia has no open arcading at the east end.
5. Byzantine architecture mixes classical and oriental elements.

2. Match words with definitions

1. exedra	a) a rectangular entrance hall between the porch and nave of a church
2. bulbous	b) the most intense or highest point of an experience or of a series of events
3. cruciform	c) shaped like a bulb; swollen; bulging
4. narthex	d) a building, room, portico, or apse containing a continuous bench, used in ancient Greece and Rome for holding discussions
5. climax	e) shaped like a cross

TEXT 1 B

SAINT SOPHIA CATHEDRAL IN KIEV



Saint Sophia Cathedral in Kiev (*Sobor Sviatoyi Sofiyi*, Собор Святої Софії in Ukrainian) is an outstanding architectural monument of Kievan Rus' and the principal cathedral of Kievan metropolitan.

The cathedral's name comes from the Hagia Sophia cathedral in Constantinople. The first foundations were laid in 1037 by prince Yaroslav I the Wise. The exterior was covered with *plinths*. Dimensions: 37×55 meters. The cathedral has 5 *naves*, 5 apses, and (quite surprisingly for a Byzantine structure) 13 cupolas (domes). It is surrounded by two-*tier* galleries from three sides.

The cathedral achieved its present Ukrainian *baroque* aspect after its reconstruction in the late 17th century, completed by 1707. On the inside, it has *mosaics* and *frescos* from the 11th century.

In 1934 the structure was confiscated by the Soviets and designated an architectural and historical museum/reserve, including the surrounding architectural ensemble of the 17th–18th century. The cathedral was the first Ukrainian patrimony to be inscribed in the World Heritage List.

Retrieved from "http://en.wikipedia.org/wiki/Saint_Sophia_Cathedral_in_Kiev"

Vocabulary:

plinth	[plɪnθ]	цоколь
nave	[neɪv]	неф (церкви)
tier	[ˈtaɪə]	ряд; ярус

baroque	[bə`rɔk]	химерний
mosaics	[məu`zeɪk]	мозаїка
frescos	[`freskəu]	фреска
ensemble	[ɑ:n`sɑ:mbɪ]	загальне враження
patrimony	[`pætrɪmənɪ]	спадок

1. Choose the correct definition

1. dome	A) a round roof on a base like a circle B) the land owned or controlled by one person or a government
2. to confiscate	A) to let someone decide something or take responsibility for something B) to officially take private property away from someone, usually as a punishment:
3. apse	A) the long central part of a church B) the curved inside end of a building, especially the east end of a church
4. nave	A) the curved inside end of a building, especially the east end of a church B) the long central part of a church
5. frescoes	A) a painting made on a wall by using watercolour paint on a surface of wet plaster B) a painting, drawing, or photograph

TEXT 1 C

St. BASIL'S CATHEDRAL

The **Cathedral of Intercession of the Virgin on the Moat** (Russian: Собор Покрова что на Рву – *The Cathedral of the Protection of the Mother of God*, or simply *Pokrovskiy Cathedral* – Russian: Покровский Собор; better known as the **Cathedral of Saint Basil the Blessed** , *Saint Basil's Cathedral* – Russian: Храм Василия



Блаженного) is a multi-tented church on the Red Square in Moscow that also features distinctive *onion domes*. It is very often mistaken by Westerners for the Kremlin, whose buildings are in fact situated across the square from the cathedral. Arguably the most recognized building in Russia, it is an international symbol for the nation and for the city of Moscow.

The cathedral was commissioned by Ivan IV (also known as *Ivan the Terrible*) in Moscow to commemorate the capture of the Khanate of Kazan, and built from 1555 to 1561. In 1588 Tsar Fedor Ivanovich had a chapel added on the eastern side above the grave of Basil Fool for Christ (*yurodivy Vassily Blazhenny*), a Russian Orthodox saint after whom the cathedral was popularly named.

Saint Basil's is located at the southeast end of Red Square, just across from the Spasskaya Tower of the Kremlin. Not particularly large, it consists of nine chapels built on a single foundation. The cathedral's design follows that of contemporary tented churches, notably those of Ascension in Kolomenskoye (1530) and of St John the Baptist's Decapitation in Dyakovo (1547).

The interior of the cathedral is a collection of separate chapels, each filled with beautiful icons, medieval painted walls, and varying artwork on the top inside of the domes. The feeling is intimate and varied, in contrast to Western cathedrals which usually consist of a massive nave with one artistic style.

In a garden at the front of the cathedral stands a bronze statue commemorating Dmitry Pozharsky and Kuzma Minin, who rallied Russia's volunteer army against the Polish invaders during the Time of Troubles in the late sixteenth and early seventeenth centuries.

The initial concept was to build a *cluster* of chapels, one dedicated to each of the saints on whose feast day the *tsar* had won a battle, but the construction of a single central tower unifies these spaces into a single cathedral. A popular historical legend says that Ivan had the architect, Postnik Yakovlev, blinded to prevent him from building a more magnificent building for anyone else. In fact, Postnik Yakovlev built a number of churches after Saint Basil's, including one in Kazan'.

Retrieved from "<http://en.wikipedia.org/>

Vocabulary:

onion dome	[ˈʌnjən]	Куполу вигляді цибулі
to commission	[kəˈmɪʃən]	давати доручення
cluster	[ˈklʌstə]	пучок, жмуток, гроно. група
rally	[ˈræli]	об'єднання, відновлення, з'їзд
tsar	[zɑ:]	цар

1. True or False

1. The Cathedral of Saint Basil the Blessed is a multi-tented church on the Red Square in Moscow.
2. St. Basil's Cathedral is a part of the Kremlin .
3. The cathedral was commissioned by Ivan IV.
4. Saint Basil's consists of eight chapels built on a single foundation.

5. According to one popular historical legend Ivan the Terrible is buried in St. Basil's Cathedral.

2. Synonym Match

1. commission	a) order
2. commemorate	b) remember
3. capture	c) imprison
4. symbol	d) emblem
5. prevent	e) stop

It's interesting to know

TIME OF TROUBLES

(1606 – 13) Period of political crisis in Russia. After the death of Fyodor I and the end of the Rurik dynasty (1598), the boyars opposed the rule of Boris Godunov and after his death placed the nobleman Vasily Shuysky (1552 – 1612) on the throne in 1606. Shuysky's rule was weakened by revolts, challenges by the second False Dmitry, and the invasion of Russia by the Polish king Sigismund III Vasa in 1609 – 10. The Russians finally rallied against the Polish invaders and succeeded in ousting them from their control of Moscow in 1612. A new representative assembly met in 1613 and elected Michael Romanov as tsar, commencing the 300-year reign of the Romanov dynasty.

UNIT 2

GOTHIC ARCHITECTURE

TEXT 2 A

GOTHIC ARCHITECTURE.

The Gothic style of architecture grew out of the *Romanesque* style to include even more sophisticated architectural structures that featured *intricate* ornamentation, vast interiors, and *soaring* roofs, with external *flying buttresses*, tall towers, and *pinnacles*. The Gothic style originated in the area around Paris called the Île-de-France during the middle of the 12th century, *coinciding* with the growth of the French monarchy and lasting until the 14th century. This northern European style came to be called “Gothic” *due to* the mistaken and *prejudicial* notion that it was introduced by the Germanic Visigoths, who were traditionally credited with the fall of the Roman Empire and therefore *derided* in subsequent centuries. This name has endured despite its initial mischaracterization and now represents an architectural style seen during its day as a more aristocratic and “modern” outgrowth of the older Romanesque. Gothic buildings reveal *pointed arches* rather than *rounded arches*, more *fenestration* than Romanesque structures, taller ceilings with more slender internal *supports*, and an overall increase in architectural sculpture.

The Gothic style was found in private homes and civic buildings, such as town halls, but it is most famously seen in church design. Gothic churches appear across western Europe but are most common today in England, France, and Germany. The largest of these churches are the cathedrals, seats of the highest level of *clergy*, and therefore have a more extensive *treasury* and typically an urban setting. Notre Dame Cathedral of Chartres is an excellent example of this type, seen rising above the skyline of the town of Chartres in France. It was begun around 1134, and construction continued through the mid-13th century. These monumental structures were often begun in the Early Gothic style and completed later in the more *ornate* High or Late Gothic, after financial troubles or disastrous fires *plagued* their construction. Chartres Cathedral is a Latin-cross-plan church with a tall *longitudinal* nave, shorter side aisles, and projecting side arms called *transepts*, each with side

entrances. As side entrances came to be increasingly used by the aristocracy to provide a path directly to the *choir*, the transept portals became more and more ornate. The choir extended from the crossing square, concluding with an *apse* encircled by an *ambulatory* with three chapels projecting from the interior wall. A *narthex* at the west façade entrance provides a transitional space from the physical world into the sanctuary, designated as the house of God on earth. The rich decoration of these churches is meant, then, not only to inspire the visitor, but to reflect God's authority through its beauty.

Because Gothic churches are taller and feature more fenestration than Romanesque churches, additional buttressing is needed on the exterior of the building. So-called flying buttresses were thus introduced. These consist of an external support *pier* attached to the wall at the top, and then angled outward toward the ground, where the weight of the masonry and gravity is dispersed. This system allows for an additional support that does not block the windows. In addition to the buttresses, Chartres Cathedral features a series of pointed *pinnacles* capping the buttresses and the transept corners, as well as pointed towers at the entrance façade. These pinnacles help to direct the weight downward, while at the same time directing the eyes of the visitor upward toward the heavens. It is this visual effect of soaring height that became the central characteristic of the Gothic style. The *tripartite* façade of Chartres has three portals in the central section, with three windows above, topped in the third register by a round window, called a *rose window*. This part of the *façade* is typically capped by an open arcade that forms the impression of a light *lattice-work*. Chartres Cathedral features towers that, because they were built during different times, do not match, but they nonetheless direct the eye upward.

The interior of Chartres Cathedral reveals a three-story *nave* with an arcade of compounded piers alternating with pointed arches at the ground floor. The engaged half- and quarter-columns of the piers rise through the nave wall, and each section follows through with the *articulation* of some aspect of the internal structure. For example, three column sections of each pier rise through the nave wall to meet the three *ribs* that branch across and *intersect* in the middle of the vault to create the

four-part ribbed vaulting and the *ribbed bay* unit divisions of the nave ceiling. This very complex structural “skeleton,” as it is sometimes called, gives visual clarity to an otherwise very complex building. *Atriforium* gallery appears in the second register of the nave wall, and large, paired *stained-glass* clerestory windows fill the entire wall space of the top register of the nave. The façade windows allow light into the nave entrance of the church, while the most dramatic illumination is found in the choir area, where the entire wall is given over to tall stained-glass windows. The idea of light as a symbol of the *divine*, of *enlightenment*, is most fully articulated in the Gothic period.

Vocabulary:

Romanesque	[,rəʊmə`nesk]	Романський стиль
intricate	[ˈɪntrɪkət]	заплутаний
soaring	[ˈsɔːrɪŋ]	високий, такий, що підноситься
flying buttresses	[ˈbɪtrəs]	арковий контрфорс; аркбутан
pinnacle	[ˈpɪnəkl]	архіт. бельведер; шпіц
coincide	[kəʊnsɪd]	збігатися
due to	[djuː]	завдяки
prejudicial	[ˈpreɪdʒɪəl]	який завдає збитків
deride	[dɪraɪd]	висміювати
pointed arch	[ˈpɪntɪd ɑːtʃ]	стрілчаста арка
rounded arch		півкругла арка
fenestration		розподіл вікон у будинку
support		підтримка, опора
clergy	[ˈklɜːdʒ]	Духовенство, священники
treasury	[ˈtrɛzərɪ]	скарбниця
ornate	[ˈɔːneɪt]	пишний

plague	[pleɪg]	чума, моровиця
longitudinal	[ˌlɒŋdɪˈnjuːdɪnl]	подовжній брус(балка)
transepts	[ˌtrænsɛpt]	поперечний неф готичного собору
choir	[ˌkwaɪə]	церковний хор
apse	[æps]	апсида
ambulatory	[ˌæmbjulətər]	крита внутрішня галерея монастиря
pier	[pɪə]	контрфорс; простінок
tripartite	[ˌtraɪˈpɑːtaɪt]	трибічний, потрійний
rose window	[ˌrəʊzɪˈwɪndəʊ]	кругле вікно-розетка
façade	[fəˈsɑːd]	фасад
latticework	[ˌlætɪsˈwɜːk]	гратчаста конструкція, <i>the intricate latticework of the fence</i>
nave	[neɪv]	неф, (церкви)
articulation	[ˌɑːtɪˈkjuleɪʃən]	з'єднання; спосіб з'єднання,
stained-glass	[steɪnd ɡlɑːs]	зроблений з вітражного скла
divine	[dɪˈvaɪn]	священний
enlightenment	[ˌɪnˈlaɪtmənt]	просвітництво

Questions

1. What is the origin of the Gothic Style?
2. What are the basic characteristics of the Gothic Style?
3. Give the examples of the Gothic Style.
4. What is the difference between Romanesque and Gothic Churches?
5. Describe Chartes Cathedral (exterior, interior).

TEXT 2 B

THE HIGH GOTHIC

*Andrew Henry Robert Martindale:
Professor of Visual Arts, University of
East Anglia, Norwich, England, 1974–
95. Author of Gothic Art and others.*

During the period from about 1250 to 1300 European art was dominated for the first time by the art and architecture of France. The reasons for this are not clear, although it seems certain that they are connected with the influence of the court of King Louis IX (1226-70). By about 1220-30 it became clear that engineering expertise had pushed building sizes to limits beyond which it was unsafe to go. The last of these gigantic buildings, *Beauvais* cathedral, had a disastrous history, which included the collapse of its vaults, and it was never completed. In about 1230 architects became less interested in size and more interested in decoration. The result was the birth of what is known as the **Rayonnant style** (from the radiating character of the rose windows, which were one of its most prominent features). The earliest moves in this direction were at Amiens cathedral, where the choir *triforium* and *clerestory* were begun after 1236, and at Saint-Denis, where *transepts* and *nave* were begun after 1231. Architects opened up as much of the wall surface as possible, producing areas of glazing that ran from the top of the main arcade to the *apex* of the vault. The combination of the triforium gallery and clerestory into one large glazed area had, of course, a unifying effect on the *elevations*. It produced an intricate play of *tracery* patterns and instantly unleashed an era of intense experiment into the form that these patterns should take. Many of the achievements of the Rayonnant architects are extremely fine--for instance, the two transept facades, begun during the 1250s, of Notre-Dame, Paris. The decorative effect of this architecture depends not only on the tracery of the windows but also on the spread of tracery patterns over areas of stonework and on architectural features such as *gables*.

Most countries produced versions of the Rayonnant style. In the Rhineland the Germans began one of the largest Rayonnant buildings, Cologne cathedral, which

was not completed until the late 19th century. The German masons carried the application of tracery patterns much further than did the French.

English architects for a long time retained a liking for heavy surface decoration; thus, when Rayonnant tracery designs were imported, they were combined with the existing repertoire of *colonettes*, *attached shafts*, and *vault ribs*. It has been called the English Decorated style, a term that is in many ways an oversimplification. The inventive *virtuosity* of the masons of Decorated style also produced experiments in tracery and vault design that anticipated by 50 years or more similar developments in the Continent.

English Decorated was, however, never really a court style. Already by the end of the 13th century, a style of architecture was evolving that ultimately developed into the true English equivalent of Rayonnant, generally known as Perpendicular. The first major surviving statement of the Perpendicular style is probably the choir of Gloucester cathedral (begun soon after 1330).

The second phase of Gothic architecture began with a subdivision of the style known as Rayonnant (1200-1280 AD) on the Continent and as the Decorated Gothic (1300-75 AD) style in England. This style was characterized by the application of increasingly elaborate geometrical decoration to the structural forms that had been established during the preceding century.

During the period of the Rayonnant style a significant change took place in Gothic architecture. Until about 1250, Gothic architects concentrated on the harmonious distribution of masses of masonry and, particularly in France, on the technical problems of achieving great height; after that date, they became more concerned with the creation of rich visual effects through decoration. This decoration took such forms as pinnacles (*upright members*, *often spired*, that *capped piers*, *buttresses*, or other *exterior elements*), *moldings*, and, especially, *window tracery*. The most characteristic and finest achievement of the Rayonnant style is the great *circular rose window* adorning the west facades of large French cathedrals; the typically radial patterns of the tracery inspired the designation Rayonnant for the new style. Another typical feature of Rayonnant architecture is the thinning of vertical

supporting members, the enlargement of windows, and the combination of the triforium gallery and the clerestory until walls are largely undifferentiated screens of tracery, *mullions* (vertical bars of tracery dividing windows into sections), and glass. *Stained glass*--formerly deeply colored--became lighter in color to increase the visibility of *tracery silhouettes* and to let more light into the interior. The most notable examples of the Rayonnant style are the cathedrals of Reims, Amiens, Bourges, Chartres, and Beauvais.

The parallel Decorated Gothic style came into being in England with the general use of elaborate stone window tracery. *Supplanting* the small, slender, pointed *lancet windows* of the early English Gothic style were windows of great width and height, divided by mullions into two to eight brightly colored main subdivisions, each of which was further divided by tracery. At first, this tracery was based on the *trefoil* and *quatrefoil*, the arch, and the circle, all of which were combined to form *netlike* patterns. Later, tracery was based on the *ogee*, or S-shaped curve, which creates flowing, *flame like* forms. Some of the most outstanding monuments of the Decorated Gothic style are sections of the *cloister* (c. 1245-69) of Westminster Abbey; the east end, or Angel Choir, of Lincoln Cathedral (begun 1256); and the nave and west front of York Minster (c. 1260-1320).

http://www.history-world.org/gothic_art_and_architecture.htm

Vocabulary:

clerestory	[ˈklɪəstəri]	верхній ряд вікон, освітлюючий хори
transepts	[ˈtrænsɛpt]	поперечний неф готичного собора
nave	[neɪv]	неф, (церкви)
apex	[ˈeɪpɛks]	верхівка
elevation	[ˈelɪveɪʃən]	підняття, підвищення
tracery	[ˈtreɪsəri]	ажурна робота
gable	[ˈgeɪbl]	фронтон, шпиль

shaft		архіт.колона; стрижень колони
vault	[vɔ:lt]	склепіння; купол
virtuosity	[və:tjuəsɪtɪ]	віртуозність
buttress	[bʌtrɪs]	опори
exterior elements		зовнішні елементи
molding	[mɔldɪŋ]	ліпнина
window tracery	[treɪs(ə)rɪ]	ажурна робота вікна
circular		круглий
mullion	[mʌlɪən]	середник
stained glass		кольорове скло
supplant	[səplɑ:nt]	вижити, витіснити
lancet window	[lɑ:nsɪt wɪndəʊ]	склепінчасте вікно
trefoil	[treɪfɔɪl]	Конюшина, орнамент у вигляді трилисника
quatrefoil	[kætrəfɔɪl]	орнамент у вигляді чотирилисника
ogee	[əʊdʒi:]	викруження, синус, стрілка
cloister	[klɔstə]	крита аркада, галер

TEXT 2 C

LATE GOTHIC

*Andrew Henry Robert Martindale:
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In France the Rayonnant style evolved about 1280 into an even more decorative phase called the Flamboyant style, which lasted until about 1500. In England a development known as the Perpendicular style lasted from

about 1375 to 1500. The most *conspicuous* feature of the Flamboyant Gothic style is the dominance in stone window tracery of a flame like S-shaped curve.

In the Flamboyant style wall space was reduced to the minimum of supporting vertical shafts to allow an almost continuous expanse of glass and tracery. Structural logic was obscured by the virtual covering of the exteriors of buildings with tracery, which often decorated masonry as well as windows. A profusion of pinnacles, gables, and other details such as *subsidiary ribs* in the vaults to form star patterns further complicated the total effect.

By the late Gothic period greater attention was being given to secular buildings. Thus, Flamboyant Gothic features can be seen in many town halls, *guildhalls*, and even residences. There were few churches built completely in the Flamboyant style, attractive exceptions being Notre-Dame d'Épine near Châlons-sur-Marne and Saint-Maclou in Rouen. Other important examples of the style are the Tour de Beurre of Rouen Cathedral and the north spire of Chartres. Flamboyant Gothic, which eventually became overly ornate, refined, and complicated, gave way in France to Renaissance forms in the 16th century.

Perpendicular gothic style in England

In England the parallel Perpendicular Gothic style was characterized by predominance of vertical lines in the stone *tracery* of windows, an enlargement of windows to great proportions, and the conversion of the interior stories into a single unified vertical *expanse*. The typical Gothic pointed vaults were replaced by *fan vaults* (fan-shaped clusters of tracery-like ribs springing from slender columns or from pendant *knobs* at the center of the ceiling). Among the finest examples of the Perpendicular Gothic style are Gloucester Cathedral (14th-15th centuries) and King's College Chapel, Cambridge (1446-1515).

http://www.history-world.org/gothic_art_and_architecture.htm

Vocabulary:

conspicuous	[kənˈspɪkjʊəs]	помітний
rib		Рервюра, ребро
guildhalls	[ˈgɪldhɔːl]	Місце збору гільдії
Perpendicular gothic style in England		Перпендикулярний готичний стиль в Англії
tracery	[ˈtreɪsəri]	ажурная работа
expanse	[ˈkspæns]	експансія
knob	[nɒb]	опуклості

UNIT 3

ORIENTAL ARCHITECTURE

TEXT 3A

INDIAN ARCHITECTURE

The structural, aesthetic, and symbolic characteristics of Indian architecture are traditionally seen within the shared cultural history of the peoples of the South Asian subcontinent.

Ancient cities Harappa and Mohenjo were probably organized much like their contemporary city-states along the river banks.

By the *Vedic* Period, which began around 1750 BC, an *influx* of nomadic shepherds from central Asia, called the Aryans, brought bronze tools, weapons, horses, and chariots that enabled them to assume control of the region and create a rich culture from which sprang Sanskrit, metaphysical philosophy, epic poetry, and most importantly, the sacred writings called the *Vedas*.

The Great *stupa* at Sanchi in central India is one of the earliest known religious structures in India. Originally built under King Ashoka, it is the largest of a group of stupas that was begun in the second century. Stupa recall the original burial mounds made to hold the remains of the Buddha and therefore are built as solid, dome-shaped monuments to contain sacred relics in their solid core. Since some of the earliest

stupas hold the actual remains of the Buddha, they are worshipped as his body, and it is believed that by walking around the stupa enough times, one can achieve *nirvana*, the liberation from rebirth.

Caves were the traditional *abode* of ascetics across many religions, and beginning in the second century BC, Buddhist monks began to carve out more elaborate rock-cut halls in the rocky central region of India called the Deccan Plateau. The man-made Ajanta Caves line the rocky outcrop of the Deccan and are intricately carved and painted with religious images and scenes of courtly life. The cool, dark interiors provided an effective sacred space for meditation, and the rockcut halls were either monastic living quarters (*vihara*) or prayer halls (*chaitya*) housing stupa shrines.

The Rock-Cut hall at Karla, from the first century BC, is the largest early Buddhist chaitya known today. The internal facade has three entrances and one window to allow light into the cave; on the inside, the entire room is carved out to reveal a central hall lined with closely spaced octagonal columns set on rounded bases and topped with carved elephants, couples, and horses.

In the 1200s, northern India was invaded by Muslims, who brought a new culture to the Indian subcontinent. Of this Islamic influence, the Mughal Dynasty is best known for its architecture, *epitomized* by the famous *Taj Mahal, Agra*, in India.

The **Taj Mahal**, an impressive mausoleum located on the bank of the Yamuna River at Agra in northern India, was built in 1632–1648 by Emperor Shah Jahan as a funerary monument for his favorite wife, Mumtaz Mahal, who died in childbirth in 1631.

Legends include various stories about how architects were required to sign contracts testifying that they would not reveal construction secrets from the mausoleum or design subsequent similar buildings.

It demonstrates a melding of Islamic, Persian, Indian, Turkish, and Byzantine architectural styles.

The facade is further divided into three parts and has a tall curved and pointed arch niche above the central door. Each side of this door displays two pairs of these arched *niches*, one atop the other, for a total of four smaller arches on each side, with the

outer niches set into the angled corners. This feature differs from the arch shape found in western Europe and is called an *iwan*.

The stones are set in a delicate floral pattern that echoes the surrounding garden and symbolizes paradise, thus contrasting the beauty of the physical world with the funerary context, as concluded inside the monument, with *cenotaphs* of the emperor and his wife.

Vocabulary:

vedic	['vedik]	ведичний
influx	['infl^ks]	приток, наплив
stupa	['stupa]	ступа
abide (abode)	[ə□ba□d]	чекати, очікувати (покірно або пасивно)
vihara	['vihara]	віхара (3х нефний зал з плоским дахом)
chaitya	['tsatja]	чайтья (3х нефний зал зі сводом)
epitomize		уособлювати, втілювати
niche		ніша
cenotaph		пам'ятник, споруджений не на місці поховання; пам'ятник невідомому солдатові

1. Match words with their definitions

1) Taj Mahal	a) is the largest early Buddhist chaitya known today
2) The Rock-Cut hall at Karla	b) is the metaphysical philosophy, epic poetry, and most importantly, the sacred writings
3) An iwan	c) were organized along the river banks.
4) Vedas	d) the feature differs from the arch shape found in western Europe
5) Ancient cities Harappa and Mohenjo	e) is an impressive mausoleum located on the bank of the Yamuna River at Agra in northern India

2. True/False

1. King Ashoka built Taj Mahal for his favorite wife who died in childbirth.
2. The Great stupa at Sanchi in central India is one of the earliest known religious structures in India.
3. Taj Mahal demonstrates clear Indian style.
4. In the 1200s, northern India was invaded by Muslims.
5. . Stupa recall the original burial mounds made to hold the remains of the Buddha.

3. Questions

1. Describe the largest early Buddhist chaitya.
2. When was northern India invaded by Muslims?
3. What period was Taj Mahal build in?
4. Describe the stupa as the sacral Indian building.
5. What events were characteristic for the Vedic Period?

TEXT 3B

ISLAMIC ARCHITECTURE

Islamic architecture is broadly defined as any construction based on the religious principles of Islam. These include mosques, funerary monuments, private dwellings, and fortifications built after the establishment of Islam in the 600s down to today. Islam originated in ancient Arabia, it quickly spread across Africa, Asia, and parts of Europe.

The earliest Islamic architecture appears under the Umayyad Dynasty (661–750), when the political center of Islam moved from Mecca to Damascus and new mosques, palaces, and government buildings were constructed.

Octagonal, domed shrine, called the Dome of the Rock, was constructed by Syrian architects who had been trained in the construction of Byzantine domes and centralized spaces. The central dome is covered in gold leaf, while the eight surrounding walls that form an interior ambulatory are decorated with *turquoise* tiles and marble. Inside the building, pilgrims walk around the double ambulatory, reading the text written in golden calligraphy around the interior frieze. This hunting lodge features a fortified stone wall that enclosed a complex of courtyards, pools, a mosque, audience hall, and separate apartment wings. The front of the palace complex is decorated with a carved stone register that runs along the lower portion of the façade and features ornate designs often called “*arabesques*” in western literature.

It was during this first dynasty that the *mosque* format was codified to include a hypostyle hall arrived at through an open courtyard. Inside the hall, the far wall faced Mecca, and this wall featured a niche in the center called the *mihrab*, where the Koran was located. The mihrab was often enclosed and contained a space for the ruler, called a maqsura, while a minbar, or *pulpit*, was located next to the mihrab and was used by the religious leader, or the imam, for *prayers*. Outside the mosque, tall towers, or minarets, connect to the courtyard wall and are used to call *worshippers* to prayer five times a day.

The Alhambra is a beautiful palace complex symbolizing the melding of Islamic aesthetics into both religious and political structures, as the two are really inseparable in Islam.

The oil wealth of 20th-century Islamic countries provided further *impetus* for the construction of monument architecture. The King Faisal Mosque, built in Islamabad, Pakistan, and sponsored by King Faisal of Saudi Arabia, was constructed in the 1980s by the Turkish architect Vedat Dalokay; it includes an enclosed congregational space for 300,000 worshippers and recalls in its wide, sloped roof a Bedouin tent, anchored in its four corner with minarets. Designed by the French architect Michel Pinseau, the mosque is built out onto the Atlantic Ocean and features a glass floor so visitors can see the ocean beneath their feet. The mosque accommodates 25,000 people inside, while an additional 80,000 fit into the courtyard. The King Hassan II Mosque also features the tallest minaret in the world. By blending traditional Islamic architecture with modern technical innovations such as a heated floor and sliding doors and roof, this building certainly sets the stage for 21st-century Islamic architectural trends.

Vocabulary:

turquoise	['tɜ:kwa:z]	бірюза
“arabesques”	[ˈæɾəˈbɪsk]	арабеска (орнамент)
mihrab	[mih'rab]	міхраб
mosque	['mosk]	мечеть
pulpit	[ˈpʊlpɪt]	кафедра (проповідника)
prayer	['preɪə]	МОЛИТВА, МОЛИТИСЯ
worship	['wɜ:sɪp]	ПОКЛОНІННЯ
impetus	[ˈɪmpʊtəs]	СТИМУЛ, ПОШТОВХ

1. Complete the sentences

1. The Dome of the Rock	a) is beautiful palace complex epitomizes the melding of Islamic aesthetics into both religious
2. The mihrab	b) was used by the imam for prayers.
3. The King Hassan II Mosque	c) was constructed by Syrian architects
4. The Alhambra	d) a niche where the Koran was located
5. A minbar	e) is the tallest minaret in the world

2. True/False

1. Islam originated in ancient Arabia and quickly spread across Africa, Asia, and parts of Europe.
2. The modern Islamic architecture relies only on traditional Islamic principles.
3. The central dome of the Dome of the Rock is not decorated.
4. Religion and political structures are separated in Islam.
5. The mosque by French architect is built out onto the Pacific Ocean.

3. Let's compare

	Indian culture	Islamic culture
1. Religion		
2. Names of shrines		
3. Countries of influence		
4. Main principles of sacral architecture		

4. Questions

1. What is the sacral centre of the Islamic culture?
2. Characterize the rule of the Umayyad Dynasty .
3. Characterize the mosque during the age of the first dynasty.
4. What is the source of wealth of the Islamic countries?
5. What modern buildings representing Islamic architectural style do you know?

TEXT3 C

JAPANESE ARCHITECTURE

The four islands that compose modern-day Japan are located off the coast of Russia, North and South Korea, and China. Pronounced hierarchical society emerged, with royal tomb monuments and palace complexes, together with more ritualized religious structures. Early tombs were formed into a necropolis of earth mounds, topped by ceramic sculptures called *haniwa* that sometimes resembled domestic architectural structures. These unglazed ceramic forms symbolized aspects of the native Japanese Shinto belief system.

Shinto shrines have persisted throughout Japanese history and reflect the belief that the gods inhabit aspects of nature, such as waterfalls, mountains, trees, and even rocks.

Shintoism was later supplanted by the advent of Buddhism from India. The Buddhist temple compound at Horyu-ji, in the central plains of Japan, built in the 600s, is one of the few surviving Buddhist temples from this early period and is the oldest original wooden building in the world. This small compound consists of two buildings: a solid five-story pagoda and a large worship hall called a kondo.

The Byodo-in, located in Kyoto, was originally built in the 11th century as a palace for the imperial counselor. The exterior walls, accented with a rich dark wood framework and reddish trim, are topped by a hipped roof with corners that tilt upward and reveal carved images of a phoenix in the corners of the gable. The tilted roof, which gives the impression of the phoenix taking flight, harks back to the earliest

Chinese Buddhist temples. By the late 12th century a more meditative form of Buddhism, called Zen Buddhism, appeared in Japan. The highly cultivated Zen gardens, often made of stone or gravel carefully raked smooth, accentuate several carefully selected rocks and artistically pruned trees. Small Zen gardens provide the proper meditative surroundings for a variety of religious structures.

The Japanese tea ceremony is tradition, in which a small group of people enter into a highly ritualistic interaction of contemplation and modest discourse. Tearooms were made of wood or bamboo, with mud walls, paper-covered windows, and a floor covered with tatami mats of woven straw. Diffused light enters through the thin paper window coverings, revealing a clear spatial arrangement to the interior, which is organized into asymmetrical square or rectangular shapes.

The **Katsura Palace** was constructed in the wooded perimeter of Kyoto in 1620 by the famous tea ceremony master and architect Kobori Enshu. At this time, the *shoin* house style was prevalent. The gardens of this style, often made of gravel meticulously raked to accentuate several carefully selected large rocks or artistically pruned trees, provided the proper meditative surroundings for a variety of religious structures. The term *shoin*, at that time, referred specifically to a writing alcove or desk, and *shoin* architecture is characterized by an intimate display of rooms organized around the study or writing hall, which could also be used to entertain guests.

The building is made up of three parts. The *Ko-shoin*, which is the more ornate *shoin*-style alcove, faces east at the front of the complex and is designed to accommodate two guest rooms, a warming room, and a small room for light snacks. The second section of the palace, located in the center of the block, is called the *Chu-shoin*. The *Chu-shoin* connects to the third alcove, called the *Shin-goten*, by a covered walkway that has storage space for musical instruments and a smaller tearoom for female guests. Sliding doors and rice paper walls provide a smooth link between interior and exterior.

From this period onward, Japan was increasingly exposed to western influences that are reflected in modern Japanese architecture, yet the traditionally nature-based.

However, the challenge for modern architects is how to integrate traditional Japanese principles of harmonious town planning and a proximity to nature into the construction of these increasingly crowded and industrialized cities.

Vocabulary:

shintoism	['ʃintoism]	СИНТОЇЗМ
shoin	[ʃoin]	ШОЇН
proximity	[prok'simiti]	БЛИЗКІСТЬ
meticulously	[mi'tikjuləsli]	ДРІБ'ЯЗКОВО

1. Match words with their definitions

2. Haniwa	a) was constructed in the wooded perimeter of Kyoto
3. The Katsura Palace	b) was later supplanted by the advent of Buddhism from India
4. Zen Buddhism	c) symbolized aspects of the native Japanese Shinto belief system.
5. The Byodo-in	d) was originally built in the 11 th century as a palace for the imperial counselor
6. Shintoism	e) appeared in Japan as a more meditative form of Buddhism

2. True/False

1. The tea ceremony is the main tradition of Japan
2. The building of The Katsura Palace was made up of five parts.
3. The four islands that compose modern-day Japan are located off the coast of Russia, North and South Korea, and China.
4. Ko-shoin connects to the third alcove, called the Shin-goten.
5. The roofs of Japanese buildings are very massive and hard.

3. Questions

1. What does the term *shoin* mean?
2. When did Zen Buddhism appear in Japan?
3. What are the three parts of Katsura Palace building?
4. What do the sliding doors and the rice paper walls symbolise?
5. What are the main challenges of the modern Japanese architecture?

TEXT 3D

CHINESE ARCHITECTURE

The **Forbidden City**, the name given to the imperial palace complex in Beijing, China, was constructed during the Ming Dynasty (1368–1644) and remains important today as one of the few large-scale architectural monuments to survive the centuries of warfare that ensued at the end of the rule of this powerful dynasty. The previous Yuan Dynasty, established in Beijing by the Mongol ruler Kublai Khan, lasted from 1280 to 1368. These rulers were continuously thought of as outsiders in China, however, and so the establishment of the Ming Dynasty was predicated upon the removal of the Mongols from power in Beijing. Architecture during the Ming Dynasty was complemented by a highly developed garden aesthetic, as well as an emphasis on a cosmological organization of city streets and buildings.

When the city of Beijing was constructed, the Mongols used traditional Chinese design principles in a grid-like layout. The streets were aligned to the cardinal points, suggesting a cosmological emphasis. The principles of feng shui, which means wind and water, developed very early in Chinese history. Markets were located on the east and west sides of the town and were open during specific days and hours. The entire city is built on a piece of land topographically conducive to a balanced qi, or primal energy, with hills located to the rear of the city and waterways, in the form of man-made rivers or pools, traversed by bridges prior to entering the city gates. Such detailed regularity was intended to protect the city from evil spirits.

The Forbidden City was based upon the same principles when reconstructed under the rule of the third Ming emperor from 1402 to 1424, after the Mongol buildings had been razed by earlier Ming rulers. It is located in the center of the northern part of the walled city of Beijing and is surrounded by tall walls with towers in each of the four corners and with four doors, one at the center of each wall. The south side has the most impressive gated entrance with its long approach through the Meridian Gate, across the large open courtyard, and over a series of arched bridges that cross a curved waterway. After passing through another gated entrance, called the Gate of Supreme Harmony, the visitor enters another courtyard that has at its far end three buildings on raised platforms, one in front of the other, aligned on axis. The first building, called by the Qing name of the Hall of Supreme Harmony, is where the emperor would be seated in his throne room facing south, to watch ceremonies that took place in the courtyard.

Beyond this building is the smaller Hall of Central Harmony, where the emperor could rest between ceremonies, and behind it, the Hall of Protecting Harmony, where royal ceremonies were rehearsed. Following this axial direction, the next structures encountered after crossing a smaller courtyard are a set of three more buildings, one in front of the next. Finally, the large Gate of Divine Might concludes the row of structures at the north end of the layered inner complex. The Inner Court consisted of the main residential buildings for the royal family, with one structure for the emperor and the opposite building for the empress, while the central building, called the Hall of Union, is for both—that is, for the union of the yin and yang.

These buildings feature double gabled roofs with sculptures located in the corners of the upper gables, and in traditional Chinese architecture, the roof corners tilt up slightly to give the impression of weightlessness. The Forbidden City today contains the largest collection of preserved ancient wood in the world. The rigidly geometric layout of the entire complex symbolizes the role of the emperor as the Son of the Heavens, to maintain cosmic order that would then be translated into social harmony.

With the growth of Beijing, the complex is now located in the centre of the city; since 1924, it has been open as a museum and houses the largest collection of Ming and Qing art in the country.

Vocabulary:

forbidden	[fo:'bidn]	заборонений
Qi	[ki:]	ци енергія
Beijing	[bi'jiŋ]	Пекін
gabled	['gebld]	гострокінцевий (продах)

1. Complete the sentence

1. Forbidden City	a) where the emperor could rest between ceremonies
2. The Yuan Dynasty	b) established in Beijing by the Mongol ruler Kublai Khan
3. Hall of Supreme Harmony	c) means wind and water
4. Feng Shui	d) was constructed during the Ming Dynasty
5. Hall of Central Harmony	e) is where the watched ceremonies that took place in the courtyard.

2. True/False

- Markets were located on the north and south sides of the town and were opened during the whole day.

2. The complex in Beijing has been open as a museum and houses the largest collection of Ming and Qing art in the country.
3. The Forbidden City contains the largest collection of preserved ancient wood statues in the world
4. The Ming Dynasty honoured the power of the Mongols in Beijing.
5. The architecture during the Ming Dynasty was complemented by a highly developed garden aesthetics.

3. Questions

1. What does the geometric layout of the entire complex symbolize?
2. What principles were used in the construction of the Forbidden City ?
3. Why do the Chinese strive to a good balance of qi energy?
4. What does the large Gate of Divine Might contain?
5. What are the main parts of the Inner Court?

UNIT 4

MODERN ARCHITECTURE

TEXTS FOR READING

TEXT 4A

ART NOUVEAU

Art Nouveau, translated simply as the “New Art,” originated in Belgium and then France in the 1880s as highly stylized and ornate, with floral shapes and patterns applied to buildings that feature curved walls and other organic forms. Recalling natural rather than man-made objects, Art Nouveau provided a contrast to the mass production characteristics of the increasingly industrialized urban society found at the turn of the century. Popular through the first two decades of the 20th century, Art Nouveau then became popular in Spain, where it was called *modern* and is seen in the work of **Antoni Gaudi**; then in Munich and Berlin, where it was called the *Jugendstil*; and also in Vienna, where it influenced the establishment of the Vienna Secession, or *Sezessionsstil*, which in turn shared traits with the **Arts and Crafts** style that had just been introduced in Britain.

The first “true” Art Nouveau building is the *Tassel House* in Brussels, built by the Belgian architect **Victor Horta** in 1892 for science professor Emile Tassel. Here Horta creates a rich environment that blends curved wall surfaces, stained glass windows, mosaics, and even stairwells with uniquely organic iron railings sweeping upward.



Both Horta and the Belgian artist **Henry van de Velde** can be seen as the founders of the Art Nouveau style. Van de Velde, also influenced by the English Arts and Crafts movement, was active in the German *Werkbund*, where he argued for individuality in design over standardization. In 1895 the French architect **Hector Guimard** went to Belgium and saw the Tassel House. He then returned to Paris to begin working in the Art Nouveau style. Guimard

is best known for his Paris metro stations, built between 1899 and 1905. The Porte Dauphine, with a glazed canopy that covers the underground entrance like a bonnet, was built in 1899 and is today the only surviving Art Nouveau closed-roof metro station entrance. The entrances featured green tinted cast iron railings, light figures, and sign posts that appear to grow out of the ground like bean stalks sprouting upward and twining around the stairwell. These “Metropolitan” entrances created a dramatic contrast to the prevailing classical style found in Paris at this time.

In 1897 in Vienna, 19 artists who had become increasingly disillusioned by the historical conservatism of the Vienna Künstlerhaus formed their own organization called the Vienna Secession and elected the painter **Gustav Klimt** as



their first president. In the same year in Vienna, **Joseph Maria Olbrich** constructed the Secession Building to house the group’s art exhibitions. The exterior is painted a shining white with a very modern, streamlined version of classical articulation to give the impression of a temple. The angular aspects of the building are diminished by an overlay of applied organic patterns done in thin black lines to give the impression of vines growing across the exterior. A golden dome rests on top of the building, with no drum, but styled like a ball of intricately intertwined flowers held together by a gilded **iron** sphere.

TEXT 4B

HOFFMANN, JOSEF (1870–1956).

Josef Hoffman, a leader of the **Art Nouveau** architectural style, was born in Moravia and went to school in Brno with **Adolf Loos**. He then studied in Vienna under **Otto Wagner** and subsequently played a central role in founding the Viennese Secession, together with Joseph Maria Olbrich. Beginning in 1899, Hoffmann taught at the School for Arts and

Crafts in Vienna, and later became the director of the school. A series of houses he constructed in Vienna, including the Carl Moll and Koloman Moser houses, reveal a more ornate style than that of Loos. After Hoffmann broke with the



Secessionists, the wealthy industrialist Moser helped him found the *Viennese Werkstätte*, for which Hoffmann designed furniture and domestic objects in the **Arts and Crafts** style. Hoffmann's Purkersdorf Sanatorium, built in 1904 on the edge of the woods outside Vienna, was commissioned by Viktor Zuckerkandl to be a modernist nursing home for the wealthy elderly.

Zuckerkandl dictated much of the design, and in fact wanted a flat roof for the building. The building is a simple, white rectangle cut inward and outward to create cubic volumes that provide a three-dimensional facade together with a three-part vertical division of the exterior. The rhythmic arrangement of unarticulated rectangular windows, grouped in threes, reveals a restrained, well-proportioned structure. The bright, white interior, done in a very rational style, cultivates the appearance of a “sanitary” space. Hoffmann's subsequent Palais Stoclet, constructed in 1905–1911 in Brussels for the wealthy banker Adolphe Stoclet, was designed in a

much richer style called the *Judenstil*, the Viennese version of the Art Nouveau style. Copper sculpture decorates the exterior of this subtly historicizing, organic building, while the interior is decorated with murals by Gustav Klimt. This is the style that provided impetus for Adolf Loos's attacks on architectural ornamentation and excess. With these buildings constructed in Europe in the first decades of the 20th century, historians have traced the beginning of the division between the sparer, geometric modernism and the more organic, expressive form of modernism that continued to define architecture through the rest of the century.

TEXT 4C

RATIONALISM

European modernist architecture of the **1920s** and **1930s** was defined as a functional style of construction stripped of applied decoration, whereby the intrinsic characteristics of a building's materials were brought to the forefront of its design, allowing for a better understanding of the true beauty of the structure. Modern architects maintained that two forms of beauty existed: one that was sensual and emotional and therefore prone to degradation, and one that was more objective and therefore reflected a "higher" form of beauty, timeless and universal. The idea that architects should aspire to a more objective, rational approach to architectural design is philosophically classical in origin, but the stylistic qualities of Rationalist architecture did not include overt classical Greek or Roman references that might trap the building in a specific time or place.

This thinking runs parallel to the ideas of the Bauhaus artists in Germany, led by **Walter Gropius** and **Ludwig Mies van der Rohe**, to French Purism, epitomized by the disciplined buildings of **Le Corbusier**, and to the Utilitarian forms of architecture developed after the Russian Revolution of 1917 by architects such as **Vladimir Tatlin**. The Rationalist style was most fully developed in the Netherlands, where its regional variant is called *de Stijl*, and in Italy, where it is called *razionalismo*.

Distinctly different in style, these two forms of Rationalist architecture confirm the idea that the International style, as this general European phenomenon of modernism later was called, did not, in fact, transcend national or cultural differences. These national differences can be seen, for example, in the works of **Giuseppe Terragni** in Italy and **Gerrit Rietveld** in the Netherlands.

Terragni's most famous building is his Casa del Fascio, built in Como in 1932–1936 as a regional administrative center for the Fascist government. The white reinforced-concrete building is a perfect prism, set off-center with four rows of five large openings on the left two-thirds of the building's façade and a thick, uninterrupted wall surface that takes up the right third. The rectangular openings have windows throughout to flood the interior with light and provide a transparency. This building conforms to the three principles of the International style: the primacy of volume rather than space, the design of regularity rather than symmetry, and the lack of applied decoration. In particular, the façade of the Casa del Fascio demonstrates the principle of regularity, and it is this distinction that separates Terragni from the more stripped-down Neo-Classicism of other early 20th-century Italian architects such as **Marcello Piacentini**. Piacentini is best known for his design of EUR, the Esposizione Universale di Rome, in 1938–1942, and the Via della Conciliazione in front of Saint Peter's Church in Rome.

In the Netherlands, both **J. J. P. Oud** and **Gerrit Rietveld** worked in an equally geometric style, but instead of the classically inspired white surfaces of Terragni's buildings, Rietveld in particular experimented with primary colors. As a member of de Stijl ("the style") which was a



movement formed by the painter **Piet Mondrian**, Rietveld sought to design both buildings and furniture to create a uniform ambience in his interiors. His Schroeder House, built in Utrecht in 1924, is further influenced by the geometric structure of Analytic Cubism, because he did not seek classical symmetry but a more dynamic equilibrium of colors and shapes. The exterior of the building is made of gray and

white squares of reinforced concrete, pieced together in vertical and horizontal sections with cantilevered squares and balconies jutting out in an asymmetrical design that negates the traditionally flat exterior wall surface. Small sections of colors accent the exterior surface and prepare the visitor for the inside of the house, which is entirely given over to bold primary colors. Wall partitions can be moved back and forth throughout the house to create different room arrangements and maximize interior flexibility. Although the owner of the house was quite wealthy, she requested a house that was modest in addition to elegant.

Although Rationalism was short-lived, perhaps due in part to its utopian ideals, Neo-Rationalist tendencies can be found in the Post-Modern architecture of the Italian architects **Mario Botta** and **Aldo Rossi**, and in the current work of **Richard Meier** in the United States.

Richard Meier was born in Newark, New Jersey, and established his profession in New York City. In 1972 he was identified as one of the “New York Five,” which consisted of a group of architects under the mentorship of **Philip Johnson**. Meier worked primarily in an updated version of the International style and was influenced mainly by Le Corbusier in his use of highly geometric forms stripped of any external decoration. His extensive career includes the recent construction of the Barcelona Museum of Contemporary Art in 1995 and the Getty Center in Los Angeles, which opened in 1997. The exterior of the Barcelona Museum employs a series of white squares and rectangles pieced together in a three-dimensional form, much like Rietveld’s Shroeder House, yet with the restrained, classical white concrete of Terragni’s buildings. Thus, in the works of Rossi and Meier, it is clear how Neo-Rationalist architects continue to find meaning in the early 20th-century European modernist style of Rationalist architecture.

Describe the picture. Le Corbusier Villa Savoye

Use the following words:

reinforced-concrete, horizontal windows,

hovers on the ground,

columns, space,

light, shadow



TEXT 4D

EXPRESSIONISM

Expressionist architecture originally developed parallel to the aesthetic ideals of the Expressionist visual and performing arts in the European avant-garde from around 1910 through 1924. From its German, Dutch, and Danish origins, the term Expressionism is now used to describe the style of any building that reveals an expressive, organic distortion shape with reference to movement and emotions, symbolic or visionary works, or natural, biomorphic shapes. Not stylized in the same manner as **Art Nouveau**, Expressionism takes its inspiration from a more unusual massing of form. Less practical than the opposing **International style** of architecture, the earliest Expressionist buildings exist either on paper or were designed for temporary exhibitions or theatrical stage sets. Expressionism in



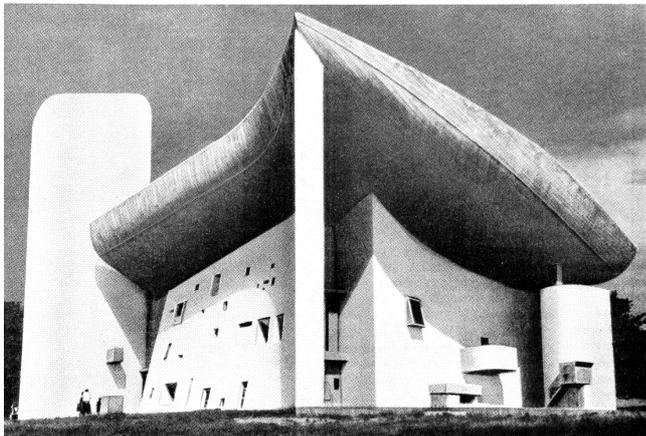
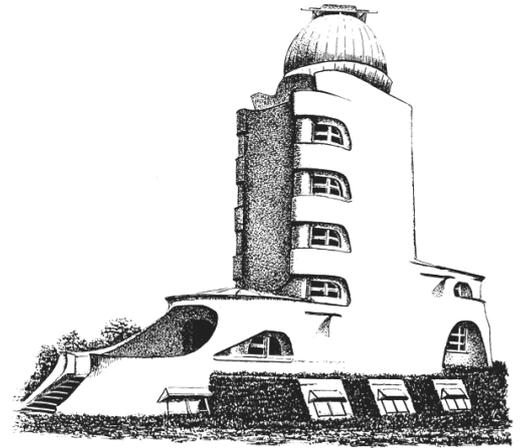
of



architecture was introduced by **Bruno Taut**, a German painter and visionary who sought to explore a highly utopian, socialist vision of modernist architecture. His **Glass Pavilion**, built for the Cologne Werkbund Exhibition of 1914, reveals a blending of **Gothic** and more exotic features in its pointed **dome** made of diamond-shaped panes of **glass** set atop a drum designed from piers that frame glass curtain walls. The entire structure rests on a base of **concrete**, formed like an earth mound elevated slightly off the ground. Although known today only in black-and-white photographs, Taut's structure was brightly colored, with stained glass to provide a symbolic, almost spiritual interior, much like that of a Gothic church. Taut's bold use of color is unique in early-20th-century modernist architecture. Original colors are rarely preserved on such extant buildings, but Taut's bright palette can be seen in his illustrations for *Alpine Architecture*, a utopian treatise published in 1917. Interest in a glass structure had existed in the previous century, and Joseph Paxton's Crystal Palace, built for the London Exhibition of 1851, initiated a debate on the merits of a glass house that did not reach its resolution until **Philip Johnson's** famous Glass House was built in New Canaan, Connecticut, in 1949. Bruno Taut offered the idea that a glass house could create a transparency that would meld public and private and that would force honesty and shape more ideal human interactions.

Taut's 1912 Falkenberg Housing Estate in Berlin and his housing complex built in Magdeburg in 1912–1915 both reveal his interest in bringing a humane functionalism, informed by the English garden city movement, to popular housing in Europe. As hostility toward Taut's political views mounted, he moved to Russia, then Japan, and finally to Istanbul, where he died after completing several municipal housing projects in Turkey.

The first major permanent Expressionist structure is considered to be **Erich Mendelsohn's Einstein Tower**, built in Potsdam, Germany, beginning in 1917 as an astrophysical observatory for the study of Albert Einstein's theory of relativity. Here Mendelsohn created a building with gentle curves and rhythms best described in musical terminology. Made to look like concrete, the shape of the building was actually created with plaster-covered **brick**, and Mendelsohn himself described the organic shape as an exploration on the mystery of Einstein's universe.



In 1933, Expressionist art was outlawed by the Nazi Party as degenerate, but nonetheless expressive tendencies endured in later International style architecture. For example, the building that most closely follows Mendelsohn's curved shapes is **Le Corbusier's Notre Dame du Haut**, built in Ronchamp, France, in the 1950s. Situated on a hill, the church features masonry walls of sprayed white concrete and a mushroom-shaped dark roof. The roof tilts on a slant, as if it is sliding down one side, while a bell tower grows out of the opposing side. Developing a more expressive late style, here Le Corbusier uses the symbolism of light and organic shape to reflect religious spirituality. The church is constructed with thick walls that are soft in appearance and have an assortment of variously sized square and rectangular windows spread across the exterior. These windows emit moving patterns of colored light in the interior of the church, creating a deeply moving ambience.

Other Expressionist architects include **Alvar Aalto**, whose Opera House in Essen, Germany, begun in 1959, features a white facade that appears to fold into curves like a piece of paper. Such later forms of Expressionism reveal a blending of

modernist styles, which formed the foundation for the work of **Eero Saarinen**, **Bruce Goff**, **Frank Lloyd Wright**, and **Frank Gehry**. Thus, the legacy of Expressionism continues to inform **Deconstructivism**, **High-Tech architecture**, and the even more recent bulging, amoeba-styled buildings called “Blobitecture.”

1. Translate into your native language in writing

visual and performing arts; dome made of diamond-shaped panes of glass; a base of concrete; plaster-covered brick; stained glass; a mushroom-shaped dark roof; rectangular windows spread across the exterior; a humane functionalism.

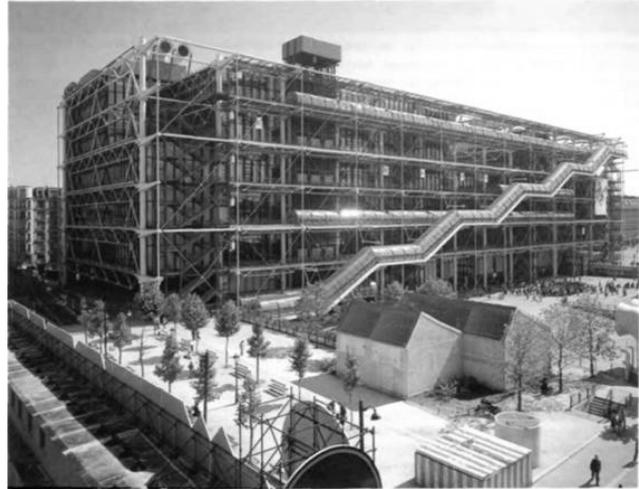
TEXT 4E

HIGH-TECH ARCHITECTURE

High-Tech architecture grew out of the **Post-modernist** style of the 1970s and 1980s to reveal an increased focus on the artistic display of more highly technical aspects of construction. With the battle cry of “form follows function,” early modern architects led the way in elevating the formal elements of buildings by stripping away all applied decoration. Yet in buildings such as **Walter Gropius**’s Fagus Shoe Company, built in Alfeld an der Leine, Germany, in 1911–1913, Gropius masked the **steel** frame of the building with thin **brick** piers. In the 1920s, the increasingly complex structural aspects of taller buildings pushed engineering innovations to their limits. Still, the structural components of these early **skyscrapers** remained hidden from view, despite their glorification in other types of constructions such as the famous steel Brooklyn Bridge, built in 1867–1883 by the Roebing’s, or the Eiffel Tower, built by Gustav Eiffel in Paris in 1887–1889. In High-Tech architecture, the structural aspects of a building take on an aesthetic character themselves, while the utilitarian aspects are taken out of hiding and placed on the exterior of the building. The style was first described in «*High Tech: the Industrial Style and Source Book for the Home*», published by Joan Kron and Suzanne Slesin in 1978. While the book

demonstrates how industrial design and furnishings can be used within the home, its most famous examples are public buildings.

High-Tech architecture is best expressed in large urban civic structures or tall office buildings. The Centre National d'Art et de Culture Georges Pompidou, built in Paris in 1971–1977 by Renzo Piano and Richard Rogers, is one of the earliest examples of this style. This massive



public building houses a museum of modern art, a public library, and centers for music and design, and because it is heavily used, the interior needed to remain as uncluttered as possible. Piano and Rogers therefore placed not only the steel frame on the outside of the building, but also the electrical wiring units, the air conditioning tubes and the water pipes, as well as the escalators, thus creating a vast exo-skeletal structure that contrasts vividly with the surrounding neighborhood. Each component was painted a different color, with the air conditioning ducts painted a bright blue, the elevators a rich red, the water pipes a green, and the electrical components a yellow.

High-Tech architecture is not a regional but an international style. Norman Foster's Hongkong and Shanghai Bank, built in Hong Kong in 1986, is another example of this style. This 47-story skyscraper features a white and gray steel frame on its exterior, with girders providing additional support. The building does not have the traditional service core, as earlier skyscrapers do, but instead it is located on the external east and west sides. Each floor is attached to this outer structure, and beneath the steel frame is a continuous line of curtain windows. A sophisticated computer tracks the sunlight and directs it into the building, reducing the need for artificial light. High-Tech architectural elements have gradually become more focused on these types of utilitarian innovations, with a desire to increase energy efficiency. High-Tech architecture will certainly remain focused on these issues as its style moves into the future.

TEXT 4F

GREEN ARCHITECTURE.

Perhaps the most current of architectural movements today, Green architecture refers to ecologically sensitive construction that takes into account new environmental concerns and the psychological needs of people, who are seen as increasingly divorced from nature. This architecture is characterized by an energy efficient organic design that blends into its natural surroundings. Like **Critical Regionalism**, Green architecture is typically made from local materials and takes into account its cultural context, but with an increased emphasis on energy-saving design and technical features that aid in the conservation and preservation of the earth's dwindling resources. Although nature-centered architecture is receiving a new emphasis now, it is not a new idea but can be found throughout history.



In the early 20th century, **Frank Lloyd Wright's** Fallingwater in Bear Run, Pennsylvania, from 1935 to 1939, was constructed atop a waterfall with local **stone**, **wood**, and **concrete** in the form of a series of horizontally oriented porches, patios, and open-plan interior spaces covered by continuous **glass** windows.

Although stylistically different from Wright's work, the rural churches of Wright's student E. Fay Jones in Arkansas are built upon these nature-centered principles. His Thorn crown Chapel (1980) in Eureka Springs, Arkansas, is made from thin pine timbers that cross each other to create a diamond-shaped support system for the glass walls. Rising from its wooded surroundings with a sharply gabled roof that directs the viewer's eyes upward, the chapel is spare in its modernism, yet with a subtle spiritual symbolism. The scale of the building is not overwhelming, as Jones instructed that no material be used that could not be carried into the wooded area by two men.

Renzo Piano, known for his **High-Tech architecture**, has also begun to focus on more "green" designs in his structures. In 1991 Piano was commissioned to design

the Tjibaou Cultural Center in Noumea, New Caledonia. With the advice of local Kanak peoples, Piano used native materials to create a series of 10 beehive-shaped structures joined together by a “spine” of low horizontal buildings that recall a native South Pacific village. These beehive structures are open at the top, giving an unfinished appearance that symbolizes the continued evolution of the Kanak peoples toward their final destiny, an idea central to Kanak belief systems. Using sophisticated technology within a traditional aesthetic, this structure alludes to both the past and the future and is sometimes called “eco-tech” architecture.

Jean Nouvel’s Foundation Cartier, built in Paris in 1994, is also a highly technical structure, but in this case it is one that responds to the remnants of nature found in its urban context. Built on a busy, wide street, its esplanade boasts a line of cedar trees planted by Francois Chateaubriand, which are framed within a glass curtain wall constructed in front of the structure. The building itself is made from multiple layers of glass curtain walls that extend beyond and above the glass “box” of the actual building, thus blurring the distinction between interior and exterior space in a more sophisticated way than mid-century glass structures could achieve.

The next step in Green architecture is to increase efficiency in heating, cooling, water use, and lighting in these buildings to better preserve the earth’s resources, while at the same time improving the quality of life with less expensive housing and increased levels of comfort in both the exterior and interior environmental ambience of these structures.

TEXT 4G

POSTMODERN ARCHITECTURE

Is postmodern a "style"? The postmodern era is most associated with architecture appearing since the late 1970s, continuing through today. Often postmodern architecture is referred to as neo-eclectic, essentially representing a revival of period styles for houses, and an unending variety of forms and sleek, asymmetrical designs for commercial buildings. Postmodernism is basically an allusion to the past, with multiple associations and meanings. It is a rejection of

modernist thought, a return to traditional, historical precedents, a re-awakened interest in history and heritage.

Postmodernism coincides with both the historic preservation movement and the new urbanism movement quite well. Contemporary skyscrapers (office towers) and their designers are basically thumbing their collective noses at the now-bland "anonymous glass box" architecture of the International era. With postmodernism, anything goes. Historical features tend to be widely exaggerated, and the critics of postmodern architecture point to the fact that contemporary architecture does not necessarily try to replicate historic styles as did the period styles.

Instead, postmodernism makes fun of the past, using a wide variety of historic forms, simplifying and mixing them into an unorganized, illogical jumble of a building. Others like the trend, citing a nice "balance" between the sleek, technical look of modern architecture and the wide variety of historic forms that can be applied.



TEXT 4H

DECONSTRUCTION

In the 1980's a new tendency was born: the deconstruction, which was also called "new modern architecture" in its beginning. It was meant to replace post modern architecture. A very significant difference of this style is that it started rather from an intellectual movement than from a significant building marking it's beginning. The new slogan was "form follows fantasy" analogous to the tradition formula pronounced by Sullivan "form follows function". In 1988 Philip Johnson organized an exposition called "Deconstructive Architecture" which finally brought these ideas to a larger audience. Those ideas even had a philosophical base developed by Jacques Derrida.

The idea was to develop buildings which show how differently from traditional architectural conventions buildings can be built without losing their utility and still complying with the fundamental laws of physics. The houses looked as if a bunch of parts had been thrown together and left exactly the way they fell on the floor. These buildings can be seen as a parallel to other modern arts, which also became more and more abstract, questioning whether a certain object is still art or not. Thanks to their significant differences to all other buildings, the deconstructive ones made clear to the observer, that architecture is an art and not just an engineering discipline. The deconstructive houses were huge abstract sculptures you can enter rather than real buildings.

One of the examples of deconstruction architecture is the **Hyper-Solar Institute in Stuttgart**, Germany by **Behnisch** which shows many classic motives like leaned window frames or absolutely disproportional blocks combined with very contrasting colors and useless steel constructions.

Zaha Hadid shows with her fire station in **Weil on the Rhine**, Germany, that deconstructive architecture is also possible with concrete and very little glass and steel. She was also a member of a group of architects who constructed the Follies 1982-1990.



Other members of this group were **Bernhard Tschumi** and **Frank O. Gehry** who even constructed 1978 his own house in Santa Monica CA with trash materials usually used by the third world population to build their barracks. They show structures that are even more absurd than those of other deconstructive buildings. Others often only modified the facade of their buildings, but these pavilions go even further. They have staircases leading nowhere or pylons supporting absolutely nothing. Already their names indicate the idea behind them.

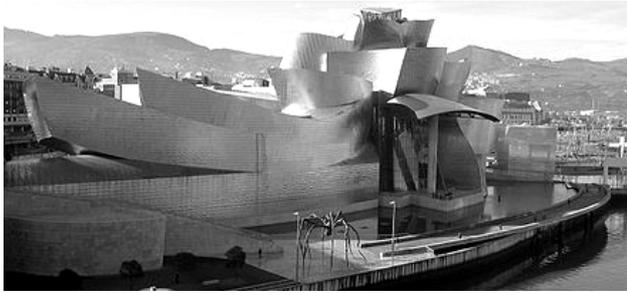
1. Describe your emotions from the picture

1. *Building Nazionale Netherlands in Prague.*

Frank O. Gehry.

2. *Guggenheim Museum in Bilbao on the river*

Nervion, Frank O. Gehry.



The High Gothic cathedrals of Paris, Reims, and Amiens in France, of Cologne in Germany, and of Milan in Italy, all follow many aspects of the format seen at Chartres. The stonemasons in charge of construction, called the *capomaestri*, increased the height of these buildings and enlarged their *fenestration* with more daring engineering feats to the point at which they could build no more—signified by the collapse of the choir vault of Beauvais Cathedral in 1284. The Late Gothic style, consequently, is typified by smaller churches, such as Sainte-Chapelle in Paris, built in the 1240s by Louis IX to house his collection of Passion relics. The walls of this palace chapel are made up entirely of stained-glass windows separated from one another by slender columns and piers, with no other visible wall structure.

In addition, the Gothic era was ultimately a time of great learning, an enlightened age credited with the establishment of the earliest universities, which were built in the Gothic style. The continued use of the Gothic style across *campuses* today gives a visual link to this past and provides historical *legitimacy* to subsequent university buildings.

The revival of the Gothic style, called the Gothic Revival, can be found in castles, private homes, and civic buildings through the next several centuries.

CONTENTS

Unit 1	Byzantine Art Of Building
Text 1A Byzantine Art Of Building	3
Text 1B Saint Sophia Cathedral In Kiev	6
Text 1C St. Basil's Cathedral	8
Unit 2	Gothic Architecture
Text 2A Gothic Architecture	10
Text 2B The High Gothic	15
Text 2C Late Gothic	18
Unit 3	Oriental Architecture
Text 3A Indian Architecture	20
Text 3B Islamic Architecture	24
Text 3C Japanese Architecture	27
Text 3D Chinese Architecture	30
Unit 4	Modern Architecture
Text 4A Art Nouveau	34
Text 4B Hoffmann, Josef (1870-1956)	36
Text 4C Rationalism	37
Text 4D Expressionism	40
Text 4E High-Tech Architecture	43
Text 4F Green Architecture	45
Text 4G Postmodern Architecture	46
Text 4H Deconstruction	47

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