

# АНГЛИЙСКИЙ ЯЗЫК

## АРХИТЕКТУРА. СТИЛИ В АРХИТЕКТУРЕ

*Методические указания к самостоятельной работе  
для студентов направления бакалавриата 07.03.01*

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## ENGLISH ARCHITECTURE. ARCHITECTURAL STYLES

САНКТ-ПЕТЕРБУРГ  
2019

Министерство науки и высшего образования Российской Федерации

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Санкт-Петербургский горный университет

Кафедра иностранных языков

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УДК 811.111:69 (073)

**АНГЛИЙСКИЙ ЯЗЫК. Архитектура. Стили в архитектуре:** Методические указания к самостоятельной работе / Санкт-Петербургский горный университет. Сост.: *В.Н. Ионова, Е.В. Картер*. СПб, 2019. 42 с.

Методические указания ставят своей целью формирование навыков чтения и перевода текстов по специальности, а также извлечения необходимой для речевой практики информации. Тематика текстов, система упражнений и заданий к ним позволяет научить студентов 2-го курса читать и анализировать прочитанное на иностранном (английском) языке, а также делать устные сообщения и принимать участие в беседе на профессиональные темы.

Задача методических указаний — формирование у студентов умений и навыков, необходимых для эффективного применения иностранного языка в профессиональной деятельности, в подготовке будущих специалистов к пониманию содержания профессионально-ориентированной литературы на английском языке.

Предназначены для самостоятельной работы студентов бакалавриата направления 07.03.01 «Архитектура» и согласованы с программой по иностранному языку для студентов неязыковых вузов.

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## **Предисловие**

Данные методические указания к самостоятельной работе предназначены для студентов 2-го курса, обучающихся по направлению подготовки 07.03.01 «Архитектура».

Задача данных методических указаний заключается в формировании у студентов умений и навыков, необходимых для эффективного применения иностранного языка в профессиональной деятельности, в подготовке будущих специалистов к пониманию содержания профессионально-ориентированной литературы на английском языке.

Методические указания состоят из трех разделов, каждый из которых содержит аутентичные тексты с иллюстрациями и графическими изображениями, объединенные общей тематикой, предназначенные для обучения различным видам чтения. Тексты сопровождаются разнообразными упражнениями, направленными на развитие умения анализировать и обсуждать прочитанное, выделять основные идеи в тексте, а также на закрепление изученной лексики и повторение грамматических конструкций, изученных на 1 курсе.

# Unit I. WHAT IS ARCHITECTURE?

## Text 1. DEFINITIONS AND ETYMOLOGY

**Task 1: Read the following words and expressions paying attention to their pronunciation:** *architecture, product of planning, physical structure, style of design, method of construction, coherent form, science, technology, urban design, landscape architecture, furniture, professional service, environment.*

**Task 2: Read and translate the text. Speak about the etymology and the definitions of the word “architecture”.**

Architecture (Latin *architectura* from the Greek ἀρχιτέκτων *arkhi-tekton* "architect", from ἀρχι- *archi-* "chief" and τέκτων "creator") is both the process and the product of planning, designing, and constructing buildings and other physical structures.

Architecture can mean:

- A general term to describe buildings and other physical structures.
- The art and science of designing buildings and (some) non-building structures.
- The style of design and method of construction of buildings and other physical structures.
- A unifying or coherent form or structure.
- Knowledge of art, science, technology, and humanity.
- The design activity of the architect, from the macro-level (urban design, landscape architecture) to the micro-level (construction details and furniture). The practice of the architect, where architecture means offering or rendering professional services in connection with the design and construction of buildings, or built environments.

**Task 3: Match the synonyms.**

1. humanity	A. outcome
2. process	B. broad
3. style	C. link
4. landscape	D. development
5. product	E. household goods
6. furniture	F. technique
7. general	G. scene
8. connection	H. mankind

## Text 2. HISTORIC TREATISES

### Task 1: Read and translate the text.

The earliest surviving written work on the subject of architecture is *De architectura*, by the Roman architect Vitruvius in the early 1st century AD. According to Vitruvius, a good building should satisfy the three principles of *firmitas, utilitas, venustas*, commonly known by the original translation – *firmness, commodity and delight*. An equivalent in modern English would be:

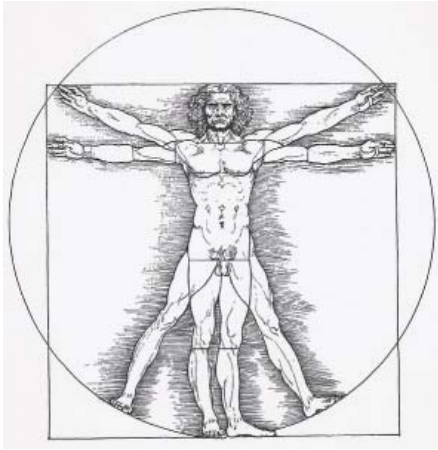
- Durability – a building should stand up robustly and remain in good condition.
- Utility – it should be suitable for the purposes for which it is used.
- Beauty – it should be aesthetically pleasing.

According to Vitruvius, the architect should strive to fulfill each of these three attributes as well as possible. Leon Battista Alberti, who elaborates on the ideas of Vitruvius in his treatise, *De Re Aedificatoria*, saw beauty primarily as a matter of proportion, although ornament also played a part. For Alberti, the rules of proportion were those that governed the idealized human figure, the Golden mean.

The most important aspect of beauty was, therefore, an inherent part of an object, rather than something applied superficially, and was based on universal, recognizable truths. The notion of style in the arts was not developed until the 16th century, with the writing of Vasari: by the 18th century, his *Lives of the Most Excellent Painters, Sculptors, and Architects* had been translated into Italian, French, Spanish, and English.



The Parthenon, Athens, Greece, "the supreme example among architectural sites" (Fletcher)



Ancient Roman architect Vitruvius described in his theory of proper architecture, the proportions of a man

and adorns the edifices raised by men ... that the sight of them" contributes "to his mental health, power, and pleasure".

For Ruskin, the aesthetic was of overriding significance. His work goes on to state that a building is not truly a work of architecture unless it is in some way "adorned". For Ruskin, a well-constructed, well-proportioned, functional building needed string courses or rustication, at the very least.



The National Congress of Brazil, designed by Oscar Niemeyer

In the early 19th century, Augustus Welby Northmore Pugin wrote *Contrasts* (1836) that, as the titled suggested, contrasted the modern, industrial world, which he disparaged, with an idealized image of neo-medieval world. Gothic architecture, Pugin believed, was the only "true Christian form of architecture."

The 19th-century English art critic, John Ruskin, in his *Seven Lamps of Architecture*, published 1849, was much narrower in his view of what constituted architecture. Architecture was the "art which so disposes

and adorns the edifices raised by men ... that the sight of them" contributes "to his mental health, power, and pleasure". On the difference between the ideals of *architecture* and mere construction, the renowned 20th-century architect Le Corbusier wrote: "You employ stone, wood, and concrete, and with these materials you build houses and palaces: that is construction. Ingenuity is at work. But suddenly you touch my

heart, you do me good. I am happy and I say: This is beautiful. That is Architecture".

Le Corbusier's contemporary Ludwig Mies van der Rohe said "Architecture starts when you carefully put two bricks together. There it begins."

**Task 2: Answer the questions:**

1. What is the earliest surviving written work on the subject of architecture?
2. Who was the architect of the earliest surviving written work on the subject of architecture?
3. What would be the equivalent of durability in modern English?
4. What should the architect strive to fulfill?
5. Who saw beauty primarily as a matter of proportion?
6. What did ancient Roman architect Vitruvius describe in his theory of proper architecture?
7. When did Augustus Welby Northmore Pugin write his *Contrasts*?
8. What was of overriding significance for Ruskin?
9. What did the renowned 20th-century architect Le Corbusier write about ingenuity?

**Task 3: Mark the sentences as TRUE or FALSE:**

1. According to Vitruvius, a good building should satisfy the two principles such as *firmness and delight*.
2. The rules of proportion were those that governed the idealized human figure, the Golden mean.
3. The most important aspect of beauty was something applied superficially.
4. The notion of style in the arts was not developed until the 18th century.
5. Gothic architecture, Pugin believed, was the only "true Christian form of architecture."
6. The 19th-century English art critic, John Ruskin, was much wider in his view of what constituted architecture.

**Task 4: Find a phrase match:**

1. ...elaborates on the ideas of...	A. ... an object
2. ... an inherent part of	B. ... the purposes for which it is used
3.... it should be suitable for ...	C. ... the ideals of <i>architecture</i> and mere construction...



4. ... functional building needed	D. ... Vitruvius in his treatise
5. On the difference between	E. ... two bricks together
6.... carefully put...	F. ... string courses or rustication

### Text 3. MODERN CONCEPTS

#### Task 1: Read and translate the text.

The notable 19th-century architect of skyscrapers, Louis Sullivan, promoted an overriding precept to architectural design: "Form follows function".

While the notion that structural and aesthetic considerations should be entirely subject to functionality was met with both popularity and skepticism, it had the effect of introducing the concept of "function" in place of Vitruvius' "utility". "Function" came to be seen as encompassing all criteria of the use, perception and enjoyment of a building, not only practical but also aesthetic, psychological and cultural.

Nunzia Rondanini stated, "Through its aesthetic dimension architecture goes beyond the functional aspects that it has in common with other human sciences. Through its own particular way of expressing values, architecture can stimulate and influence social life without presuming that, in and of itself, it will promote social development."

To restrict the meaning of (architectural) formalism to art for art's sake is not only reactionary; it can also be a purposeless quest for perfection or originality which degrades form into a mere instrumentality".

Among the philosophies that have influenced modern architects and their approach to building design are rationalism, empiricism, structuralism, poststructuralism, and phenomenology.

In the late 20th cen-



Sydney Opera House, Australia designed by Jørn Utzon

ture a new concept was added to those included in the compass of both structure and function, the consideration of sustainability, hence sustainable architecture. To satisfy the contemporary ethos a building should be constructed in a manner which is environmentally friendly in terms of the production of its materials, its impact upon the natural and built environment of its surrounding area and the demands that it makes upon non-sustainable power sources for heating, cooling, water and waste management and lighting.

**Task 2: Answer the questions.**

1. What an overriding precept to architectural design did Louis Sullivan promote?
2. How was the notion that structural and aesthetic considerations should be entirely subject to functionality met?
3. What did Nunzia Rondanini state?
4. What can architecture stimulate and influence?
5. What can degrade form into a mere instrumentality?
6. What are the philosophies that have influenced modern architects and their approach to building design?
7. What new concept was added to those included in the compass of both structure and function in the late 20th century?
8. Why should a building be constructed in a manner which is environmentally friendly in terms of the production of its materials, its impact upon the natural and built environment of its surrounding area?

**Task 3: Fill in the gaps with the appropriate prepositions (of, in, with, through, to, for, upon).**

1. ...it had the effect \_\_\_ introducing the concept \_\_\_ "function" \_\_\_ place \_\_\_ Vitruvius' "utility".
2. ...it has \_\_\_ common \_\_\_ other human sciences.
3. \_\_\_ its own particular way \_\_\_ expressing values, architecture can stimulate and influence social life...
4. To restrict the meaning \_\_\_ (architectural) formalism \_\_\_ art \_\_\_ art's sake is not only reactionary; it can also be a purposeless quest \_\_\_ perfection...
5. \_\_\_ the late 20th century a new concept was added \_\_\_ those included \_\_\_ the compass \_\_\_ both structure and function...
6. ...it makes \_\_\_ non-sustainable power sources \_\_\_ heating, cooling, water and waste management and lighting.

#### Task 4: Match the synonyms.

1. quest	A. practical
2. dimension	B. impel
3. influence	C. content
4. functional	D. search
5. satisfy	E. request
6 concept	F. affect
7. demand	G. theory
8. stimulate	H. size

## Unit II. HISTORY OF ARCHITECTURE

### Text 1. ORIGINS AND VERNACULAR ARCHITECTURE

**Task 1: Explain what is meant by *vernacular architecture*, *needs*, *shelter*, *worship*, *means*, *attendant skills*, *craft*, *a process of trial and error*, *replication*, *rural*, *surplus*, *urban areas*.**

**Task 2: Read and speak about the origins and vernacular architecture.**

Building first evolved out of the dynamics between needs (shelter, security, worship, etc.) and means (available building materials and attendant skills). As human cultures developed and knowledge began to be formalized through oral traditions and practices, building became a craft,



Pre-historic model of a planned pre-historic temple, at the National Museum of Archaeology in Valletta

and "architecture" is the name given to the most highly formalized and respected versions of that craft. It is widely assumed that architectural success was the product of a process of trial and error, with progressively less trial and more replication as the results of the process proved increasingly satisfactory. What is termed vernacular architecture continues to be produced in many parts of the world. Indeed, vernacular buildings

make up most of the built world that people experience every day. Early human settlements were mostly rural. Due to a surplus in production the economy began to expand resulting in urbanization thus creating urban areas which grew and evolved very rapidly in some cases, such as that of Çatal Höyük in Anatolia and Mohenjo Daro of the Indus Valley Civilization in modern-day Pakistan.

**Task 3: Mark the sentences as TRUE or FALSE:**

1. Building first evolved out of the dynamics between needs and means.

2. "Architecture" is the name given to the least formalized versions of that craft.

3. It is widely assumed that architectural success was the product of a process of trial and error, with progressively more trial and less replication as the results of the process proved increasingly satisfactory.

4. What is termed vernacular architecture continues to be produced in many parts of the world.

5. Early human settlements were mostly urban.

6. Urban areas grew and evolved very rapidly.

**Task 4: Make a report on one of the following vernacular buildings:**



Vernacular architecture in Norway:  
wood and elevated-level



In Lesotho: rondavel stones



Yola hut-Tagoat Co.  
Wexford Ireland

## Text 2. ANCIENT ARCHITECTURE

**Task 1: Read the text and fill in the gaps with the following words:** *form, important, Roman, ancient, supernatural, power, architecture, new, civilizations, canons.*

In many ancient \_\_\_\_\_, such as those of Egypt and Mesopotamia, architecture and urbanism reflected the constant engagement with the divine and the \_\_\_\_\_, and many ancient cultures resorted to monumentality in architecture to represent symbolically the political \_\_\_\_\_ of the ruler, the ruling elite, or the state itself.

The architecture and urbanism of the Classical civilizations such as the Greek and the \_\_\_\_\_ evolved from civic ideals rather than religious or empirical ones and \_\_\_\_\_ building types emerged. Architectural "style" developed in the \_\_\_\_\_ of the Classical orders. Roman architecture was influenced by Greek \_\_\_\_\_ as they incorporated many Greek elements into their building practices.

Texts on architecture have been written since \_\_\_\_\_ time. These texts provided both general advice and specific formal prescriptions or \_\_\_\_\_. Some examples of canons are found in the writings of the 1st-century BC Roman Architect Vitruvius. Some of the most \_\_\_\_\_ early examples of canonic architecture are religious.

## Text 3. THE GIZA PLATEAU

**Task 1: Read and translate the text.**



The Pyramids at Giza in Egypt

The Giza Plateau is a plateau that is located in Giza, Egypt. The famous Giza Necropolis is located in this geographical area, which is characterized by a sandy, desert climate and terrain with little vegetation. The general elevation is just over 3,000 ft above sea level but the highest points on it rise to 5,077 and 4,293.

The plateau has many tombs. One of the people working on clearing the sands from around the Great Sphinx was Eugène Grébaut, a French Director of the Antiquities Service. "In the beginning of the year 1887, the chest, the paws, the altar, and plateau were all made visible. Flights of steps were unearthed, and finally accurate measurements were taken of the great figures. The height from the lowest of the steps was found to be one hundred feet, and the space between the paws was found to be thirty-five feet long and ten feet wide. Here there was formerly an altar; and a stele of Thutmose IV was discovered, recording a dream in which he was ordered to clear away the sand that even then was gathering round the site of the Sphinx."

Modern Giza's layout is accessed by two main roads. The first from the north leads to Khufu's pyramids and the other road leads near the Sphinx's front court, from the east. They cross the Nile River from the east bank and follow the causeway westward. Dominating the plateau and running in a southwest diagonal through the site are the three pyramids of the pharaohs Khufu, Khafra, and Menkaura. The northernmost, and the largest, one belongs to Khufu. Khafra's pyramid is built precisely on a southwest diagonal to his father's pyramid, as well as having been built on higher ground to create the illusion of being bigger. The pyramid of Menkaura is much smaller and is not aligned along the same diagonal line as the other two pyramids. On a clear day the Pyramids of Abusir can be seen from the Giza Plateau. It is a place attractive to tourists, researchers and adherents of New Age. Stout shoes or jogging shoes are recommended for visitors to the plateau.

**Task 2: Answer the questions.**

1. Where is the Giza Plateau located?
2. What is this geographical area characterized by?
3. What does the plateau have?
4. What was Eugène Grébaut?
5. What was the height from the lowest of the steps?
6. What was the space between the paws?
7. What was discovered?
8. Where does the first road from the north lead to?
9. What river do the roads cross from the east bank?

10. Who does the northernmost, and the largest, pyramid belong to?
11. Who visited the Giza Plateau?
12. What kind of shoes are recommended for visitors to the plateau?

**Task 3: Fill in the gaps with the appropriate prepositions.**

1. The general elevation is just \_\_\_ 3,000 ft \_\_\_ sea level...
2. \_\_\_ the beginning \_\_\_ the year 1887, the chest, the paws, the altar, and plateau were all made visible.
3. Flights \_\_\_ steps were unearthed...
4. Modern Giza's layout is accessed \_\_\_ two main roads.
5. ... the other road leads \_\_\_ the Sphinx's front court, \_\_\_ the east.
6. Dominating the plateau and running \_\_\_ a southwest diagonal \_\_\_ the site are the three pyramids \_\_\_ the pharaohs Khufu, Khafra, and Menkaura.
7. Khafra's pyramid is built precisely \_\_\_ a southwest diagonal \_\_\_ his father's pyramid.
8. \_\_\_ a clear day the Pyramids of Abusir can be seen \_\_\_ the Giza Plateau.

**Task 4: Read the text and fill in the gaps with the following words:** *regional, microcosm, centuries, designed, characteristics, concepts, different.*

## ASIAN ARCHITECTURE

Early Asian writings on architecture include the *Kao Gong Ji* of China from the 7th–5th 1 \_\_\_\_\_ BC; the Shilpa Shastras of ancient India; Manjusri Vasthu Vidya Sastra of Sri Lanka and Araniko of Nepal.

The architecture of 2 \_\_\_\_\_ parts of Asia developed along different lines from that of Europe; Buddhist, Hindu and Sikh architecture each having different 3 \_\_\_\_\_. Buddhist architecture, in particular, showed great 4 \_\_\_\_\_ diversity. Hindu temple architecture, which developed around the 3rd century BC, is governed by 5 \_\_\_\_\_ laid down in the Shastras, and is concerned with expressing the macrocosm and the 6 \_\_\_\_\_. In many Asian countries, pantheistic religion led to architectural forms that were 7 \_\_\_\_\_ specifically to enhance the natural landscape.

## Text 4. GYEONGBOKGUNG PALACE

### Task 1: Read and speak about Gyeongbokgung Palace.

Gyeongbokgung was originally constructed in 1394 by King Taejo, the first king and the founder of the Joseon dynasty, and its name was conceived by an influential government minister named Jeong Do-jeon. Afterwards, the palace was continuously expanded during the reign of King Taejong and King Sejong the Great. It was severely damaged by fire in 1553, and its costly restoration, ordered by King Myeongjong, was completed in the following year.

However, four decades later, the Gyeongbokgung Palace was burnt to the ground during the Japanese invasions of Korea of 1592-1598. The royal court was moved to the Changdeokgung Palace. The Gyeongbokgung palace site was left in ruins for the next three centuries.

In 1867, during the regency of Daewongun, the palace buildings were reconstructed and formed a massive complex with 330 buildings and 5,792 rooms. Standing on 4,657,576 square feet (432,703 square meters) of land, Gyeongbokgung again became an iconic symbol for both the Korean nation and the Korean royal family. In 1895, after the assassination of Empress Myeongseong by Japanese agents, her husband, Emperor Gojong, left the palace. The Imperial Family never returned to Gyeongbokgung.

Starting from 1911, the colonial government of the Empire of Japan systemically demolished all but 10 buildings during the Japanese occupation of Korea and hosted numerous exhibitions in Gyeongbokgung. In 1915, it was used as the site for the Joseon Industrial Exhibition with new exhibition buildings being erected in the grounds.

In 1926, the government constructed the massive Japanese General Government Building in front of the throne hall, Geunjeongjeon, in order to eradicate the symbol and heritage of the Joseon dynasty.



Gyeongbokgung Palace in Seoul,  
South Korea



Gwanghwamun Gate, the main and south gate of Gyeongbokgung, was relocated by the Japanese to the east of the palace, and its wooden structure was completely destroyed during the Korean War. A further exhibition, the Chosun Exhibition, followed in 1929.

Gyeongbokgung's original 19th-century palace buildings that survived both the Japanese rule of Colonial Korea and the Korean War include:

- Geunjeongjeon (the Imperial Throne Hall) – National Treasure No. 223.

- Gyeonghoeru Pavilion — National Treasure No. 224.

- Hyangwonjeong Pavilion; Jagyeongjeon Hall; Jibokjae Hall; Sa-jeongjeon Hall; and Sujeongjeon Hall.

Modern archaeological surveys have brought 330 building foundations to light.

In 1989, the South Korean government started a 40-year initiative to rebuild the hundreds of structures that were destroyed by the colonial government of the Empire of Japan, during the period of occupied Colonial Korea (1910-1945).

In 1995, the Japanese General Government Building, after many controversial debates about its fate, was demolished in order to reconstruct Heungnyemun Gate and its cloisters. The National Museum of Korea, then located on the palace grounds, was relocated to Yongsan-gu in 2005.

By the end of 2009, it was estimated that approximately 40 percent of the structures that were standing before the Japanese occupation of Korea were restored or reconstructed. As a part of phase 5 of the Gyeongbokgung restoration initiative, Gwanghwamun, the main gate to the palace, was restored to its original design. Another 20-year restoration project is planned by the South Korean government to restore Gyeongbokgung to its former status.

**Task 2: Answer the questions.**

1. Who was Gyeongbokgung originally constructed by?
2. When was the palace continuously expanded?
3. When was the restoration, ordered by King Myeongjong, completed?
4. When was the Gyeongbokgung Palace burnt to the ground?
5. Where was the royal court moved to?
6. How many rooms did a massive complex have in 1867?
7. When did Emperor Gojong leave the palace?

8. What happened to the buildings during the Japanese occupation of Korea?

9. What did the government construct in front of the throne hall in 1926?

10. Why did the government do it?

11. When was the Chosun Exhibition hosted?

12. How many building foundations have modern archaeological surveys brought to light?

13. When did the South Korean government start a 40-year initiative to rebuild the hundreds of structures?

14. Where was the National Museum of Korea relocated to in 2005?

15. What percentage of the structures that were standing before the Japanese occupation of Korea was restored or reconstructed?

**Task 3: Mark the sentences as TRUE or FALSE**

1. Gyeongbokgung was originally constructed in 1494.

2. It was severely damaged by water in 1553.

3. Gyeongbokgung stood on 432,703 square meters of land.

4. The Imperial Family never returned to Gyeongbokgung.

5. In 1917, it was used as the site for the Joseon Industrial Exhibition.

6. Gwanghwamun Gate, the main and south gate of Gyeongbokgung, was relocated by the Chinese to the east of the palace.

7. In 1995, the Japanese General Government Building was demolished.

8. As a part of phase 3 of the Gyeongbokgung restoration initiative, the main gate to the palace was restored to its original design.

**Task 4: Find a phrase match.**

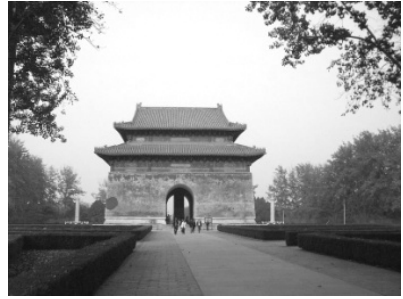
1. ... was left in ruins...	A. ... both the Korean nation and the Korean royal family.
2. ... with new exhibition buildings...	B. ... its original design.
3. ... its name was conceived by...	C. ... for the next three centuries.
4. ... after many controversial debates...	D. ... during the Korean War.
5. ... was restored to...	E. ... an influential government minister...

6. ... became an iconic symbol for...	F. ... about its fate...
7. ... is planned by...	G. ... being erected in the grounds.
8. ... was completely destroyed...	H. ... the South Korean government...

**Task 5: Make a report on one of the following Asian buildings:**



Kinkaku-ji (Golden Pavilion), Kyoto, Japan



The Great Red Gate at the Ming Tombs near Beijing, China



Bahay na Bato houses in Philippines



The ceiling of Dilwara Jain Temples, India



The view of Janaki mandir, Nepal

## Text 5. ISLAMIC ARCHITECTURE

### **Task 1: Read and speak about Islamic architecture and the Taj Mahal.**

Islamic architecture began in the 7th century CE, incorporating architectural forms from the ancient Middle East and Byzantium, but also developing features to suit the religious and social needs of the society. Examples can be found throughout the Middle East, North Africa, Spain and the Indian Sub-continent.



The Taj Mahal is one of the most famous buildings in the world, the mausoleum of Shah Jahan's favourite wife, Mumtaz Mahal. It is one of the New Seven Wonders of the world, and one of the three World Heritage Sites in Agra. Agra is commonly identified as the "City of Taj".

Completed in 1653, the Taj Mahal was built by the Mughal king Shah Jahan as the final resting place for his beloved wife, Mumtāz Mahal.

Finished in marble, it is one of India's many beautiful monuments and is set amidst landscaped gardens. Built by the Persian architect, Ustād 'Īsā, the Taj Mahal is on the south bank of the Yamuna River. It can be observed from Agra Fort from where Emperor Shāh Jahān gazed at it for the last eight years of his life, a prisoner of his son Aurangzeb. Verses of the Quran are inscribed on it and at the top of the gate are 22 small domes, signifying the number of years the monument took to build. The Tāj Mahal was built on a marble platform that stands above a sandstone one. The most elegant dome of the Taj Mahal has a diameter of 60 feet (18 m), and rises to a height of 80 feet (24 m); directly under this dome is the tomb of Mumtāz Mahal. Shah Jahān's tomb was erected next to hers by his son Aurangzeb. The interiors are decorated with fine inlay work, incorporating semi-precious stones.

**Task 2: Answer the questions.**

1. When did Islamic architecture begin?
2. What architectural forms did Islamic architecture incorporate?
3. What is one of the most famous mausoleum in the world? Why?
4. Who built the Taj Mahal?
5. When was it completed?
6. Whose final resting place is it?
7. What is it made of?
8. Where is the Taj Mahal located?
9. Whose verses are inscribed on it?
10. How many small domes are there?
11. What do these domes signify?
12. What is the diameter of the Taj Mahal?
13. What is its height?
14. Where was Shah Jahān's tomb erected?
15. What are interiors decorated with?

**Task 3: Match the synonyms.**

1. feature	A. celebrated
2. bank	B. write
3. begin	C. characteristic
4. gaze	D. grave
5. complete	E. shore
6. inscribe	F. look
7. famous	G. start
8. tomb	H. finish

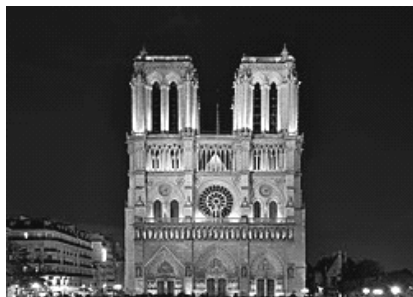
## Unit III. DEVELOPMENT OF ARCHITECTURAL STYLES

### Text 1. MIDDLE AGES

**Task 1: Read and translate the text. Answer the question: What was the role of the architect during the Medieval period?**

In Europe during the Medieval period, guilds were formed by craftsmen to organise their trades and written contracts have survived, particularly in relation to ecclesiastical buildings. The role of architect was usually one with that of master mason, or *Magister lathomorum* as they are sometimes described in contemporary documents.

The major architectural undertakings were the buildings of abbeys and cathedrals. From about 900 CE onwards, the movements of both clerics and tradesmen carried architectural knowledge across Europe, resulting in the pan-European styles Romanesque and Gothic.



Notre Dame de Paris, France



Doge's Palace, Venice, Italy

**Task 2: Read and translate the text.**

Romanesque architecture is an architectural style of medieval Europe characterized by semi-circular arches. There is no consensus for the beginning date of the Romanesque style, with proposals ranging from the 6th to the 11th century, this later date being the most commonly held. In the 12th century it developed into the Gothic style, marked by pointed arches. Examples of Romanesque architecture can be found across the continent, making it the first pan-European architectural style since Im-

perial Roman architecture. The Romanesque style in England is traditionally referred to as Norman architecture.

Combining features of ancient Roman and Byzantine buildings and other local traditions, Romanesque architecture is known by its massive quality, thick walls, round arches, sturdy pillars, barrel vaults, large towers and decorative arcading. Each building has clearly defined forms, frequently of very regular, symmetrical plan; the overall appearance is one of simplicity when compared with the Gothic buildings that were to follow. The style can be identified right across Europe, despite regional characteristics and different materials. Many castles were built during this period, but they are greatly outnumbered by churches. The most significant are the great abbey churches, many of which are still standing, more or less complete and frequently in use. The enormous quantity of churches built in the Romanesque period was succeeded by the still busier period of Gothic architecture, which partly or entirely rebuilt most Romanesque churches in prosperous areas like England and Portugal. The largest groups of Romanesque survivors are in areas that were less prosperous in subsequent periods, including parts of southern France, rural Spain and rural Italy. Survivals of unfortified Romanesque secular houses and palaces, and the domestic quarters of monasteries are far rarer, but these used and adapted the features found in church buildings, on a domestic scale.

**Task 3: Answer the questions.**

1. What is Romanesque architecture characterized by?
2. What is the beginning date of the Romanesque style?
3. Why is it the first pan-European architectural style since Imperial Roman architecture?
4. How can you identify the examples of Romanesque architecture?
5. Where are the largest groups of Romanesque survivors located?

**Task 4: Agree or disagree to the statements.**

1. Romanesque architecture is an architectural style of medieval Europe characterized by circular arches.
2. There is no consensus for the beginning date of the Romanesque style, with proposals ranging from the 5th to the 9th century.
3. Romanesque architecture combines features of ancient Roman and Byzantine buildings and other local traditions.

4. Many churches were built during this period, but they are greatly outnumbered by castles.

5. During the period of Gothic architecture, most Romanesque churches were partly or entirely rebuilt.

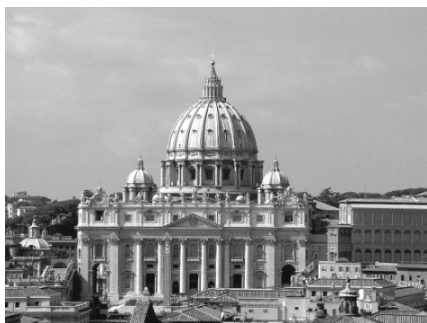
**Task 5: Complete the sentences.**

1. Romanesque architecture is an architectural style ...
2. Examples of Romanesque architecture can be found ...
3. Romanesque architecture is known by ...
4. Each building has ...
5. The largest groups of Romanesque survivors are in ...

## **Text 2. RENAISSANCE AND THE ARCHITECT**

**Task 1: Read and translate the text.**

In Renaissance Europe, from about 1400 onwards, there was a revival of Classical learning accompanied by the development of Renaissance Humanism which placed greater emphasis on the role of the individual in society than had been the case during the Medieval period. Buildings were ascribed to specific architects – Brunelleschi, Alberti, Michelangelo, Palladio – and the cult of the individual had begun. There was still no dividing line between artist, architect and engineer, or any of the related vocations, and the appellation was often one of regional preference.



St. Peter's Basilica, Rome, Italy



Palazzo Farnese, Rome, Italy





Santa Maria Novella, Florence, Italy

A revival of the Classical style in architecture was accompanied by a burgeoning of science and engineering which affected the proportions and structure of buildings. At this stage, it was still possible for an artist to design a bridge as the level of structural calculations involved was within the scope of the generalist.

### **Text 3. MICHELANGELO DI LODOVICO BUONARROTI SIMONI**

#### **Task 1: Read and translate the text.**

Michelangelo di Lodovico Buonarroti Simoni or more commonly known by his first name Michelangelo (*/ˌmɪkəlˈændʒələʊ/*; Italian: *[mikeˈlandʒelo di lodoˈviːko ˌbwɔnarˈrɔːti siˈmoːni]*; 6 March 1475 – 18 February 1564) was an Italian sculptor, painter, architect and poet of the High Renaissance born in the Republic of Florence, who exerted an unparalleled influence on the development of Western art. Considered by many the greatest artist of his lifetime, and by some the greatest artist of all time, his artistic versatility was of such a high order that he is often considered a contender for the title of the archetypal Renaissance man, along with his rival, the fellow Florentine and client of the Medici, Leonardo da Vinci. A number of Michelangelo's works of painting, sculpture and architecture rank among the most famous in existence. His output in these fields was prodigious; given the sheer volume of surviving correspondence, sketches and reminiscences, he is the best-documented artist of the 16th century. He sculpted two of his best-known works, the *Pietà* and *David*, before the age of thirty. Despite holding a low opinion of painting, he also created two of the most influential frescoes in the history of Western art: the scenes from *Genesis* on the ceiling of the Sistine Chapel in Rome, and *The Last Judgment* on its altar wall. His design of the Laurentian Library pioneered Mannerist architecture. At the age of 74, he

succeeded Antonio da Sangallo the Younger as the architect of St. Peter's Basilica. He transformed the plan so that the western end was finished to his design, as was the dome, with some modification, after his death. Michelangelo was the first Western artist whose biography was published while he was alive. In his lifetime, Michelangelo was often called Il Divino ("the divine one"). His contemporaries often admired his *terribilità*—his ability to instill a sense of awe. Attempts by subsequent artists to imitate Michelangelo's impassioned, highly personal style resulted in Mannerism, the next major movement in Western art after the High Renaissance.

**Task 2: Answer the questions.**

1. Why is Michelangelo considered by many the greatest artist of his lifetime, and by some the greatest artist of all time?
2. When and where was Michelangelo born?
3. Can you name any of Michelangelo's works of painting and sculpture?
4. Which of Michelangelo's works pioneered Mannerist architecture?
5. At what age did Michelangelo succeed Antonio da Sangallo the Younger as the architect of St. Peter's Basilica?
6. What is "*terribilità*"?

**Task 3: Agree or disagree to the statements.**

1. Michelangelo's artistic versatility was of an exceptionally high order.
2. A number of Michelangelo's works of painting, sculpture and architecture rank among the most famous in existence.
3. Michelangelo is the best-documented artist of the 16th century.
4. Michelangelo sculpted two of his best-known works, the *Pietà* and *David*, before the age of forty.
5. Michelangelo created three of the most influential frescoes in the history of Western art.

**Task 4: Open the brackets and use the appropriate tense-aspect verb forms.**

Michelangelo (redesign) the dome of St. Peter's Basilica in 1547, taking into account all that (go) before. His dome, like that of Florence, (construct) of two shells of brick, the outer one having 16 stone ribs, twice the number at Florence but far fewer than in Sangallo's design. As

with the designs of Bramante and Sangallo, the dome (raise) from the piers on a drum. The encircling peristyle of Bramante and the arcade of Sangallo (reduce) to 16 pairs of Corinthian columns, each of 15 metres (49 ft) high which stand proud of the building, (connect) by an arch. Visually they (appear) to buttress each of the ribs, but structurally they (be) probably quite redundant. The reason for this is that the dome is ovoid in shape, (rise) steeply as does the dome of Florence Cathedral, and therefore exerting less outward thrust than does a hemispherical dome, such as that of the Pantheon, which, although it is not buttressed, (counter) by the downward thrust of heavy masonry which (extend) above the circling wall.

#### **Text 4. EARLY MODERN AND THE INDUSTRIAL AGE**

##### **Task 1: Read and translate the text.**

With the emerging knowledge in scientific fields and the rise of new materials and technology, architecture and engineering began to separate, and the architect began to concentrate on aesthetics and the humanist aspects, often at the expense of technical aspects of building design. There was also the rise of the "gentleman architect" who usually dealt with wealthy clients and concentrated predominantly on visual qualities derived usually from historical prototypes, typified by the many country houses of Great Britain that were created in the Neo Gothic or Scottish



Palais Garnier, Paris, France



Pont Alexandre III Paris, France

Baronial styles. Formal architectural training in the 19th century, for example at École des Beaux-Arts in France, gave much emphasis to the production of beautiful drawings and little to context and feasibility.

Meanwhile, the Industrial Revolution laid open the door for mass production and consumption. Aesthetics became a criterion for the middle class as ornamented products, once within the province of expensive craftsmanship, became cheaper under machine production.

Vernacular architecture became increasingly ornamental. House builders could use current architectural design in their work by combining features found in pattern books and architectural journals.

**Task 2: Answer the questions.**

1. Why did architecture and engineering begin to separate?
2. What aspects did the architect begin to concentrate on?
3. Who is the "gentleman architect"?
4. What were the features of formal architectural training in the 19th century?
5. What was the role of the Industrial Revolution?

**Task 3: Read the definition of *vernacular architecture* and give some examples of this architectural style.**

Vernacular architecture is an architectural style that is designed based on local needs, availability of construction materials and reflecting local traditions. Traditionally, vernacular architecture did not use formally-schooled architects, but relied on the design skills and tradition of local builders, who were rarely given any attribution for the work. However, since the late 19th century many professional architects have worked in this style and interest in vernacular architecture now forms part of a broader interest in sustainable design. Vernacular architecture can be con-



Congreso Nacional Palace, Buenos Aires,  
Argentina

trasted against polite architecture which is characterized by stylistic elements of design intentionally incorporated for aesthetic purposes which go beyond a building's functional requirements.

## **Text 5. MODERNISM**

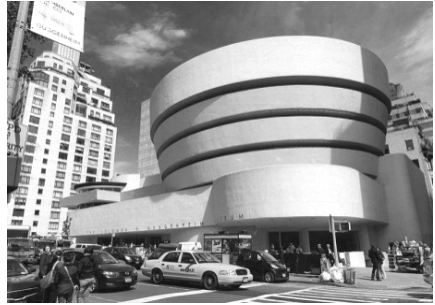
### **Task 1: Read and translate the text.**

Around the beginning of the 20th century, a general dissatisfaction with the emphasis on revivalist architecture and elaborate decoration gave rise to many new lines of thought that served as precursors to Modern Architecture. Notable among these is the Deutscher Werkbund, formed in 1907 to produce better quality machine made objects. The rise of the profession of industrial design is usually placed here. Following this lead, the Bauhaus school, founded in Weimar, Germany in 1919, redefined the architectural bounds prior set throughout history, viewing the creation of a building as the ultimate synthesis – the apex – of art, craft, and technology.

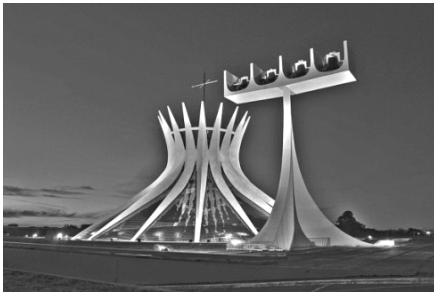
When modern architecture was first practiced, it was an avant-garde movement with moral, philosophical, and aesthetic underpinnings. Immediately after World War I, pioneering modernist architects sought to develop a completely new style appropriate for a new post-war social and economic order, focused on meeting the needs of the middle and working classes. They rejected the architectural practice of the academic refinement of historical styles which served the rapidly declining aristocratic order. The approach of the Modernist architects was to reduce buildings to pure forms, removing historical references and ornament in favor of functionalist details. Buildings displayed their functional and structural elements, exposing steel beams and concrete surfaces instead of hiding them behind decorative forms. Architects such as Frank\_Lloyd\_Wright "[https://en.wikipedia.org/wiki/Frank\\_Lloyd\\_Wright](https://en.wikipedia.org/wiki/Frank_Lloyd_Wright)" Wright developed organic architecture, in which the form was defined by its environment and purpose, with an aim to promote harmony between human habitation and the natural world with prime examples being Robie House and Fallingwater. Fallingwater is the residence Wright designed for the Kaufmann family in rural Pennsylvania. Wright had many choices to locate a home on this large site, but chose to place the home directly over the wa-



The Bauhaus school building  
in Dessau, Germany



Guggenheim Museum, New York City,  
United States



Cathedral of Brasília, Brazil



Willis Tower, Chicago,  
United States

terfall and creek creating a close, yet noisy dialog with the rushing water and the steep site. The horizontal striations of stone masonry with daring cantilevers of colored beige concrete blend with native rock outcroppings and the wooded environment.

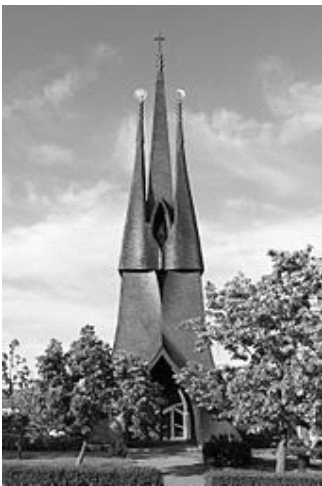
Architects such as Mies van der Rohe, Philip Johnson and Marcel Breuer worked to create beauty based on the inherent qualities of building materials and modern construction techniques, trading traditional historic forms for simplified geometric forms, celebrating the new means and methods made possible by the Industrial Revolution, including steel-frame construction, which gave birth to high-rise superstructures. Fazlur Rah-

man Khan's development of the tube structure was a technological breakthrough in building ever higher. By mid-century, Modernism had morphed into the International Style, an aesthetic epitomized in many ways by the Twin Towers of New York's World Trade Center designed by Minoru Yamasaki.

**Task 2: Answer the questions.**

1. What served as precursors to Modern Architecture?
2. What do you know about the Bauhaus school?
3. What did pioneering modernist architects seek to develop?
4. What do you know about the developer of organic architecture?
5. Can you name any architects who worked to create beauty based on the inherent qualities of building materials?
6. What new means and methods were made possible by the Industrial Revolution?
7. Who were the Twin Towers of New York's World Trade Center designed by?

**Task 3: Read the text and fill in the gaps with the following words: *carefully, every, refers, principles, reflecting, competing, life.***



Catholic church,  
Paks by Imre Makovecz

Organic architecture is also translated into the all inclusive nature of Wright's design process. Materials, motifs, and basic ordering 1\_\_\_ continue to repeat themselves throughout the building as a whole. The idea of organic architecture 2\_\_\_ not only to the buildings' literal relationship to the natural surroundings, but how the buildings' design is 3\_\_\_ thought about as if it were a unified organism. Geometries throughout Wright's buildings build a central mood and theme. Essentially organic architecture is also the literal design of 4\_\_\_ element of a building: from the windows, to the floors, to the individual chairs intended to fill the space. Everything relates to one another, 5\_\_\_ the symbiotic ordering systems of nature.

Other modernist architects in the U.S., Europe, and elsewhere held complementary and often 6\_\_\_\_ views of how architecture could best emulate nature. Key figures in the U.S. included Louis Sullivan, Claude Bragdon, Eugene Tsui and Paul Laffoley while among European modernists Hugo Häring and Hans Scharoun stand out. Following World War II, organic architecture often reflected cybernetic and informatic models of 7\_\_\_\_, as is reflected in the later work of futurist architect Buckminster Fuller.

## Text 6. FRANK LLOYD WRIGHT

**Task 1: Read the text and put the verbs in the brackets in appropriate tense-aspect forms.**

1. Frank Lloyd Wright (June 8, 1867 – April 9, 1959)
2. Design elements

His Prairie houses use themed, coordinated design elements (often based on plant forms) that (to repeat) in windows, carpets, and other fittings. He (to make) innovative use of new building materials such as pre-cast concrete blocks, glass bricks, and zinc came (instead of the traditional lead) for his leadlight windows, and he famously used Pyrex glass tubing as a major element in the Johnson Wax Headquarters. Wright (to be) also one of the first architects to design and install custom-made elec-



An open office area  
in Wright's Johnson Wax headquarters  
complex, Racine, Wisconsin (1939)

tric light fittings, including some of the first electric floor lamps, and his very early use of the then-novel spherical glass lampshade (a design previously not possible due to the physical restrictions of gas lighting). In 1897, Wright (to receive) a patent for "Prism Glass Tiles" that (to use) in storefronts to direct light toward the interior. Wright fully (to embrace) glass in his designs and found that it fit well into his philosophy of organic architecture. According to



Wright's organic theory, all components of the building should appear unified, as though they belong together. Nothing should (to attach) to it without considering the effect on the whole. To unify the house to its site, Wright often (to use) large expanses of glass to blur the boundary between the indoors and outdoors. Glass allowed for interaction and viewing of the outdoors while still protecting from the elements. In 1928, Wright wrote an essay on glass in which he (to compare) it to the mirrors of nature: lakes, rivers and ponds. One of Wright's earliest uses of glass in his works was to string panes of glass along whole walls in an attempt to create light screens to join together solid walls. By using this large amount of glass, Wright sought to achieve a balance between the lightness and airiness of the glass and the solid, hard walls. Arguably, Wright's best-known art glass (to be) that of the Prairie style. The simple geometric shapes that yield to very ornate and intricate windows (to represent) some of the most integral ornamentation of his career.

Wright also (to design) some of his own clothing. His fashion sense was unique and he usually (to wear) expensive suits, flowing neckties, and capes.

**Task 2: Make a presentation about the design elements used by Frank Lloyd Wright.**

## **Text 7. POSTMODERNISM**

**Task 1: Read and translate the text.**

### **Postmodernism**

Many architects resisted modernism, finding it devoid of the decorative richness of historical styles. As the first generation of modernists began to die after World War II, a second generation of architects including Paul Rudolph, Marcel Breuer, and Eero Saarinen tried to expand the aesthetics of modernism with Brutalism, buildings with expressive sculptural façades made of unfinished concrete. But an even new younger postwar generation critiqued modernism and Brutalism for being too austere, standardized, monotone, and not taking into account the richness of hu-



The Dancing House, Prague,  
Czech Republic



Sydney Opera House,  
Australia

man experience offered in historical buildings across time and in different places and cultures.

One such reaction to the cold aesthetics of modernism and Brutalism is the school of metaphoric architecture, which includes such things as biomorphism and zoomorphic architecture, both using nature as the primary source of inspiration and design. While it is considered by some to be merely an aspect of postmodernism, others consider it to be a school in its own right and a later development of expressionist architecture.

Beginning in the late 1950s and 1960s, architectural phenomenology emerged as an important movement in the early reaction against modernism, with architects like Charles Moore in the United States, Christian Norberg-Schulz in Norway, and Ernesto Nathan Rogers and Vittorio Gregotti, Michele Valori, Bruno Zevi in Italy, who collectively popularized an interest in a new contemporary architecture aimed at expanding human experience using historical buildings as models and precedents. Postmodernism produced a style that combined contemporary building technology and cheap materials, with the aesthetics of older pre-modern and non-modern styles, from high classical architecture to popular or vernacular regional building styles. Robert Venturi famously defined post-modern architecture as a "decorated shed" (an ordinary building which is functionally designed inside and embellished on the outside), and upheld it against modernist and brutalist "ducks" (buildings with unnecessarily expressive tectonic forms).

**Task 2: Answer the questions.**

1. Why did many architects resist modernism?
2. What did postwar generation criticize modernism and Brutalism for?
3. What do biomorphism and zoomorphic architecture have in common?
4. What kind of style did Postmodernism produce?
5. How can you comment on Robert Venturi's definition of postmodern architecture as a "decorated shed"?

**Task 3: Complete the sentences.**

1. Many architects resisted modernism, finding it devoid of ...
2. The postwar generation critiqued modernism and Brutalism for being too...
3. Beginning in the late 1950s and 1960s, architectural phenomenology emerged as...
4. Postmodernism produced a style that combined ...
5. Robert Venturi famously defined postmodern architecture as a "decorated shed", and upheld it against ...

**Text 8. BIOMORPHISM**



Biomorphic branching columns in Gaudí's monumental but still incomplete Sagrada Família church are modelled on trees

**Task 1: Read the text and speak about the examples of biomorphism in different spheres of life.**

The term *Biomorphism* was coined by the British writer Geoffrey Grigson and subsequently used by Alfred H. Barr in the context of his 1936 exhibition *Cubism and Abstract Art*. Biomorphist art focuses on the power of natural life and uses organic shapes, with shapeless and vaguely spherical hints of the forms of biology. Biomorphism has connections with Surrealism and Art Nouveau.

The Tate Gallery's online glossary article on biomorphic form specifies that while these forms are abstract, they "refer to, or evoke, living forms...". The article goes on to list Joan Miró, Jean Arp, Henry Moore, and

Barbara Hepworth as examples of artists whose work epitomises the use of biomorphic form.

• **In painting**

The paintings of Yves Tanguy and Roberto Matta are also often cited as exemplifying the use of biomorphic form. During and after World War II, Yves Tanguy's landscapes became emptier, which has been seen as a psychological portrait of wartime Europe.

The use of metamorphosis through Picasso influenced Surrealism in the 1920s, and it appeared both as subject matter and as procedure in the figurative paintings of Leonora Carrington and in the more abstract, automatic works of André Masson. Desmond Morris is a biomorphic painter of note.

• **In architecture**

The Sagrada Família church by Antoni Gaudí in Barcelona contains many features inspired by nature, such as branching columns intended to reflect trees.

Other well known examples of biomorphism in architecture can be found in the Lotus Temple in New Delhi, by Fariborz Sahba, based on a lotus flower, and the TWA Flight Center building in New York City, by Eero Saarinen, inspired by the form of a bird's wing.

One of the leading contemporary architects that uses biomorphism in his work is Basil Al HYPERSLINK "[https://en.wikipedia.org/wiki/Basil\\_Al\\_Bayati](https://en.wikipedia.org/wiki/Basil_Al_Bayati)" Bayati, a leading proponent of the school of Metaphoric architecture whose designs have been inspired by trees and plants, snails, whales and insects such as the Palm Mosque at the King Saud University in Riyadh, or the Al-Nakhlah Palm Telecommunications Tower, which are based upon the form of a palm tree, or the Oriental Village by the Sea, in the Dominican Republic that is based upon the segmented body of a dragonfly.

• **In industrial design**

Biomorphism is also seen in modern industrial design, such as the work of Alvar Aalto and Isamu Noguchi, whose Noguchi table is considered an



Spacelander Bicycle  
designed by Benjamin G. Bowden  
in 1946; Manufactured 1960.  
Brooklyn Museum

icon of industrial design. Presently, the effect of the influence of nature is less obvious: instead of designed objects looking exactly like the natural form, they use only slight characteristics to remind us of nature.

## **Text 9. ARCHITECTURE TODAY**

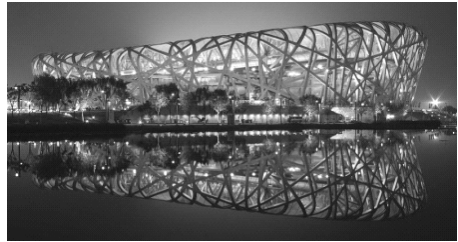
### **Task 1: Read and translate the text.**

Since the 1980s, as the complexity of buildings began to increase (in terms of structural systems, services, energy and technologies), the field of architecture became multi-disciplinary with specializations for each project type, technological expertise or project delivery methods. In addition, there has been an increased separation of the 'design' architect from the 'project' architect who ensures that the project meets the required standards and deals with matters of liability. The preparatory processes for the design of any large building have become increasingly complicated, and require preliminary studies of such matters as durability, sustainability, quality, money, and compliance with local laws. A large structure can no longer be the design of one person but must be the work of many. Modernism and Postmodernism have been criticised by some members of the architectural profession who feel that successful architecture is not a personal, philosophical, or aesthetic pursuit by individualists; rather it has to consider everyday needs of people and use technology to create livable environments, with the design process being informed by studies of behavioral, environmental, and social sciences.

Environmental sustainability has become a mainstream issue, with profound effect on the architectural profession. Many developers, those who support the financing of buildings, have become educated to encourage the facilitation of environmentally sustainable design, rather than solutions based primarily on immediate cost. Major examples of this can be found in passive solar building design, greener roof designs, biodegradable materials, and more attention to a structure's energy usage. This major shift in architecture has also changed architecture schools to focus more on the environment. There has been an acceleration in the number of buildings which seek to meet green building sustainable design principles. Sustainable practices that were at the core of vernacular architec-

ture increasingly provide inspiration for environmentally and socially sustainable contemporary techniques. The U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) rating system has been instrumental in this.

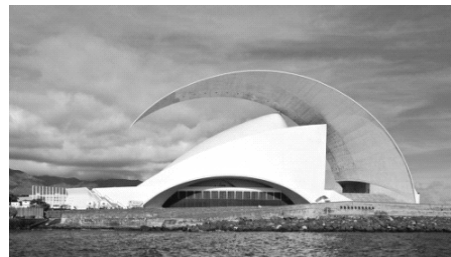
Concurrently, the recent movements of New Urbanism, metaphoric architecture and New\_Classical\_Architecture promote a sustainable approach towards construction that appreciates and develops smart growth, architectural tradition and classical design. This in contrast to modernist and globally uniform architecture, as well as leaning against solitary housing estates and suburban sprawl. Glass curtain walls, which were the hallmark of the ultra modern urban life in many countries surfaced even in developing countries like Nigeria where international styles had been represented since the mid 20th Century mostly because of the leanings of foreign-trained architects.



Bird's Nest stadium, Beijing, China



London City Hall, England



Auditorio de Tenerife, Canary Islands, Spain

**Task 2: Answer the questions.**

1. When did the complexity of buildings begin to increase?
2. What is the difference between the 'design' architect and the 'project' architect?
3. What preliminary studies did the preparatory processes for the design of any large building require?

4. What is meant by “livable environments”?
5. Can you give any examples of environmentally sustainable design?
6. Why do architecture schools focus more on the environment nowadays?
7. What do you know about the recent movements in architecture?

**Task 3: Read the text and speak about the Green Building practice.**

Green building (also known as green construction or sustainable building) refers to both a structure and the application of processes that are environmentally responsible and resource-efficient throughout a building's life-cycle: from planning to design, construction, operation, maintenance, renovation, and demolition. This requires close cooperation of the contractor, the architects, the engineers, and the client at all project stages. The Green Building practice expands and complements the classical building design concerns of economy, utility, durability, and comfort.

Leadership in Energy and Environmental Design (LEED) is a set of rating systems for the design, construction, operation, and maintenance of green buildings which was developed by the U.S. Green Building Council. Other certificates system that confirms the sustainability of buildings is the British BREEAM (Building Research Establishment Environmental Assessment Method) for buildings and large-scale developments. Currently, World Green Building Council is conducting research on the effects of green buildings on the health and productivity of their users and is working with World Bank to promote Green Buildings in Emerging Markets through EDGE (Excellence in Design for Greater Efficiencies) Market Transformation Program and certification. There are also other tools such as Green Star in Australia and the Green Building Index (GBI) predominantly used in Malaysia. Although new technologies are constantly being developed to complement current practices in creating greener structures, the common objective of green buildings is to reduce the overall impact of the built environment on human health and the natural environment by:

- Efficiently using energy, water, and other resources
- Protecting occupant health and improving employee productivity (see healthy building)

- Reducing waste, pollution and environmental degradation.

A similar concept is natural building, which is usually on a smaller scale and tends to focus on the use of natural materials that are available locally. Other related topics include sustainable design and green architecture. Sustainability may be defined as meeting the needs of present generations without compromising the ability of future generations to meet their needs. Although some green building programs don't address the issue of the retrofitting existing homes, others do, especially through public schemes for energy efficient refurbishment. Green construction principles can easily be applied to retrofit work as well as new construction.

## **Text 10. NEW URBANISM**

### **Task 1: Read and translate the text.**

New Urbanism is an urban design movement which promotes environmentally friendly habits by creating walkable neighborhoods containing a wide range of housing and job types. It arose in the United States in the early 1980s, and has gradually influenced many aspects of real estate development, urban planning, and municipal land-use strategies.

Defining elements.

Andrés Duany and Elizabeth Plater-Zyberk, two of the founders of the Congress for the New Urbanism, observed mixed-use streetscapes with corner shops, front porches, and a diversity of well-crafted housing while living in one of the Victorian neighborhoods of New Haven, Connecticut. They and their colleagues observed patterns including the following:

- The neighborhood has a discernible center. This is often a square or a green and sometimes a busy or memorable street corner. A transit stop would be located at this center.
- Most of the dwellings are within a five-minute walk of the center, an average of roughly 0.25 miles (0.40 km).
- There are a variety of dwelling types – usually houses, rowhouses, and apartments – so that younger and older people, singles and families, the poor and the wealthy may find places to live.



- At the edge of the neighborhood, there are shops and offices of sufficiently varied types to supply the weekly needs of a household.
- A small ancillary building or garage apartment is permitted within the backyard of each house. It may be used as a rental unit or place to work (for example, an office or craft workshop).
- An elementary school is close enough so that most children can walk from their home.
- There are small playgrounds accessible to every dwelling – not more than a tenth of a mile away.
- Streets within the neighborhood form a connected network, which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination.
- The streets are relatively narrow and shaded by rows of trees. This slows traffic, creating an environment suitable for pedestrians and bicycles.
- Buildings in the neighborhood center are placed close to the street, creating a well-defined outdoor room.
- Parking lots and garage doors rarely front the street. Parking is relegated to the rear of buildings, usually accessed by alleys.
- Certain prominent sites at the termination of street vistas or in the neighborhood center are reserved for civic buildings. These provide sites for community meetings, education, and religious or cultural activities.

**Task 2: Answer the questions.**

1. What is New Urbanism?
2. What does New Urbanism promote?
3. What aspects of life does New Urbanism influence?
4. When and where did New Urbanism arise?
5. What are the defining elements of New Urbanism?

**Text 11. WHAT LIFE MIGHT BE LIKE IN 2116.**

**Task 1: Read and translate the text.**

A new report shows what life might be like in 100 years from now. It describes skyscrapers that are much taller than today's buildings, underwater 'bubble' cities, and holidays in space. The report is from Samsung's SmartThings. It asked experts on space, architecture, and city

planners to give their ideas on life in 2116. They said the way we live, work and play will be totally different to how we do these things today. The experts said that 25 years ago, people could not imagine how the Internet and smartphones would change our lives. The Internet has revolutionised the way we communicate, learn and do daily things. The experts said the changes in the next century would be even more unbelievable. Researchers questioned 2,000 adults about the predictions they thought were most likely to happen in the future. They predicted that in the future, few people will go to an office but will work from home and have virtual work meetings. People will have advanced 3D printers that will let you download a design for furniture or a food recipe and then 'print' the sofa, table or pizza at home. There will also be less need for visits to the doctor. We will all have a home health capsule that will tell us what the problem is and give us treatment. We will also be going into space for holidays and to get resources that we have used up on Earth.

**Task 2: Say if the statements below are true (T) or false (F).**

1. Buildings in the future will be shorter than today's buildings.
2. Experts say people will be living in underwater cities.
3. The report is from the tech company Apple.
4. Experts say the changes to come by 2116 will be unbelievable.
5. Researchers asked 20,000 people about the future.
6. People will be able to print download and print pizzas.
7. People won't need to go to the doctor as much as they do now.
8. People predicted that we will still need to study English.

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направления 07.03.01*

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