

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ХАРКІВСЬКА НАЦІОНАЛЬНА АКАДЕМІЯ МІСЬКОГО ГОСПОДАРСТВА

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**ЗБІРНИК ТЕКСТІВ ТА ЗАВДАНЬ ДЛЯ САМОСТІЙНОЇ РОБОТИ
СТУДЕНТІВ 2 КУРСУ З ДИСЦИПЛІНИ «ІНОЗЕМНА МОВА»
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INTRODUCTION

The course is designed for the students of non-language higher educational institutions studying architecture.

It consists of five units and is expected to be covered during self-study.

Each unit consists of

- an authentic selected for reading, translation and study in class with the supervisor and one's own;
- vocabulary according to the topic. Architectural terms are mostly taken from the text;
- additional texts for reading.

The purpose of the course is to teach students working at English texts on their own and to increase the level of their knowledge.

Unit 1 Career in Architecture

Career in Architecture

I. Read and translate the text.

Every building is rich in character and essence. Every door and wall is believed to have a different story to tell. It takes a lot of visualization, imagination and persistence to witness your ideas taking shape. If you have these qualities, then you are definitely an architect in the making. For anyone who is good at drawing, talented at designing and imaginative, architecture might prove to be a highly rewarding career to pursue.

An architect is responsible for planning and designing the foundation and interiors of a building or a home. Architects also design the blueprints and plans for skyscrapers, buildings, homes and even mansions. Every successful architect is required to be imaginative and versatile and at the same time, he should be able to respect the customer's preferences.

In the world of architecture, jobs are plenty and interior designing of homes is a whole new career in itself. An experienced architect is expected to be able to draw a blueprint, of the interior as well as the exterior elevations, floor plans, the foundation, electrical layouts, roof details and the cross sections.

Career Requirements

For an individual to pursue a career in architecture, he must first get a license through an accredited agency. In the course of years, every architect becomes familiar with the different building codes, laws and regulations and becomes more proficient in the craft. To excel in this, aspiring architects must first pursue a college degree, where they learn the procedures and labor involved.

In addition to planning and designing a building or a home, architects are also responsible for making required adjustments in fully developed plans. This involves changing blueprints for a business or a home to suit the customer's need. Most people hire architects to design their homes or buildings, while others prefer to take on the task themselves. If any problems should arise during the construction process, most

companies and individuals turn towards architects for professional appraisal and restoration.

In recent years, there have been new concerns regarding the cost of energy and safety. This concern has made it mandatory for an architect's seal to be stamped on a blueprint, before construction. Besides the basic designing process, most architects have begun reviewing plans and offering consultation services.

While most architects opt to work within a firm or directly with specific homebuilders, some find great satisfaction working as consultants or freelancers. This means that they have to work directly with the concerned individual or company, operate their own businesses and handle all the decisions of the company by themselves.

For a talented and design-focused individual, an architect career can be very lucrative and rewarding.

II. Answer the questions:

1. What qualities are needed to be an architect?
2. What is an architect responsible for?
3. What are the career requirements for an architect?
4. What career prospects are for an architect?

III. Give English equivalents for the following word combinations:

- a) наполегливість
- b) вдала кар'єра
- c) проект
- d) займатися (чимсь)
- e) коректування
- f) прибуткова кар'єра
- g) професійна оцінка

IV. Fill in the gaps with the following words:

Blueprint, rewarding, imaginative, versatile, freelance

1. Textbook writing can be an intellectually and financially _____ activity.

2. A leather jacket is a timeless and _____ garment that can be worn in all seasons.
3. It is unlikely that their _____ for economic reform will be put into action.
4. Most of the journalists I know work _____.
5. The architects have made _____ use of glass and transparent plastic.

V. Fill in the gaps using a correct word in brackets:

The position of landscape architect that is becoming more valued and valuable in today's market. Everyone loves to visit an _____ (*enjoyable/enjoying*) and attractive area such as a park or playground. College campuses are famous for their use of landscaping in an effort to provide a warm welcoming atmosphere to their students. Architects design these areas so that they are _____ (*functionally/functional*), beautiful and fully at ease with the natural environment around them. The landscape architect plan the _____ (*exactly/exact*) location of each roadway, walkway and how the trees and buildings are arranged within the campus unit as a whole. A landscape architect may work for any number of groups or organizations from _____ (*developers/development*) of real estate to municipal areas such as a small town to a larger city. Working side by side with the architect, the surveyor and engineer together decide the best arrangement for roads, buildings and pathways. The landscape architect is required today to affiliate and collaborate with many other persons such as conservationist, foresters, environmental sciences and _____ (*natural/naturally*) resource companies to make decisions necessary to complete the project.

Architecture Schools

I. Read and translate the text.

Rapid urbanization and buildings turning into art forms have given a boost to architecture studies. Colleges and universities across the USA offer professional courses in architecture and related fields accredited by the National Architectural

Accrediting Board (NAAB). This is an important requirement for being a licensed architect.

The best route in being a registered or licensed architect is a five-year Bachelor or Master of Architecture degree program. If hesitant or unsure of career choice, opt for a four-year bachelor's degree and then move on to graduate school for a 2- or 3-year Masters Degree program in Architecture. To be a licensed or registered architect one needs an internship in an architectural firm working under the supervision of registered professionals, followed by a comprehensive examination.

Different states have their own jurisdiction procedures. Some boards require a pre-professional degree in architecture or a bachelor's degree in any subject. The National Council of Architectural Registration Boards (NCARB) follows their own criteria for admission to licensing examinations. Before applying to a college or school, check on the number of accredited programs being offered, or on related degree programs such as a program in historic preservation or architectural engineering with an accredited professional architecture degree program. The coursework is similar to accredited programs but problems arise at the time of license. Sometimes a single school offers several accredited professional degree programs, such as a five-year undergraduate degree for high school graduates and a three-and-a-half-year graduate degree for those who already have a degree in another field. One should check on the accreditation status of the school before applying as new architecture schools cannot have NAAB accreditation until the first professional class graduates.

If still undecided, the best choice is the Bachelor of Architecture programs, which allow flexibility of the yearly components of (2+3, 1+4, 3+2 or 4+1). This allows logical entry and exit points from various phases of a full five-year program. The student's work is carefully reviewed before moving onto the next phase: another architecture program, institution or academic discipline such as landscape architecture, industrial design, graphic design, etc.

If interested in further specialization get a post-professional architecture degree in design theory, health care facilities, preservation, interior design, solar design, etc.

One minor hitch is that these studies are not NAAB accredited. Study of architecture should not be cost deterrent. The majority of schools and colleges offer financial aid. Another way to save money on your architecture education is to take admission at a community or junior college, then move onto a more renowned college. Or you can opt for five-year program offering logical curriculum decision points. Picking up non-architectural disciplines such as behavioral sciences, engineering (structural and mechanical), economics, CAD or computer-aided design, history or communication is an added bonus whether interested in buildings or landscape designs.

II. Answer the questions:

1. What is NAAB?
2. How to become a licensed architect?
3. What are the jurisdiction procedures in different states?
4. What non-architectural disciplines can a curriculum offer?

III. Define whether sentences are true (T) or false (F):

1. Colleges and universities across the USA offer professional courses in architecture accredited by NAAB.
2. The best way to become a licensed architect is a six-year Bachelor or Master of Architecture degree program.
3. Some boards do not require a pre-professional degree in architecture or a bachelor's degree in any subject.
4. Design theory, health care facilities and preservation are not NAAB accredited.
5. The majority of schools and colleges offer financial aid.
6. Computer-aided design and engineering are non-architectural disciplines.

IV. Give English equivalents for the following word combinations:

- a) ступінь магістра
- b) ступінь бакалавра
- c) більшість шкіл
- d) гнучкість
- e) необхідна умова
- f) фінансова допомога
- g) навчальний план

Unit 2 Oriental Architecture

Islamic Architecture



I. Read and translate the text.

Islamic architecture has encompassed a wide range of both secular and religious architecture styles from the foundation of Islam to the present day, influencing the design and construction of buildings and structures within the sphere of Islamic culture.

The principle architectural types of Islamic architecture are; the Mosque, the Tomb, the Palace and the Fort.

A specifically recognizable Islamic architectural style developed soon after the time of the Prophet Muhammad, developing from Roman, Egyptian, Persian/Sassanid, and Byzantine models. An early example may be identified as early as 691 AD with the completion of the Dome of the Rock (Qubbat al-Sakhrah) in Jerusalem. It featured interior vaulted spaces, a circular dome, and the use of stylized repeating decorative patterns (arabesque).

The Great Mosque of Samarra in Iraq, completed in 847 AD, combined the hypostyle architecture of rows of columns supporting a flat base above which a huge spiraling minaret was constructed.

The Hagia Sophia in Istanbul also influenced Islamic architecture. When the Ottomans captured the city from the Byzantines, they converted the basilica to a

mosque (now a museum) and incorporated Byzantine architectural elements into their own work (e.g. domes). The Hagia Sophia also served as model for many of the Ottoman mosques such as the Shehzade Mosque, the Suleiman Mosque, and the Rüstem Pasha Mosque.

Common interpretations of Islamic architecture include the following: The concept of Allah's infinite power is evoked by designs with repeating themes which suggest infinity. Human and animal forms are rarely depicted in decorative art as Allah's work is considered to be matchless. Foliage is a frequent motif but typically stylized or simplified for the same reason. Arabic Calligraphy is used to enhance the interior of a building by providing quotations from the Qur'an. Islamic architecture has been called the "architecture of the veil" because the beauty lies in the inner spaces (courtyards and rooms) which are not visible from the outside (street view). Furthermore, the use of grandiose forms such as large domes, towering minarets, and large courtyards are intended to convey power.

II. Answer the questions:

- 1) What styles are encompassed in Islamic architecture?
- 2) What are the principal architectural types?
- 3) What served as model for many of the Ottoman mosques?
- 4) What forms are rarely depicted in decorative art?
- 5) Why is Islamic architecture called the "architecture of the veil"?

III. Match the words on the left with the words on the right:

1. circular	a) power
2. decorative	b) spaces
3. spiraling	c) dome
4. infinite	d) minaret
5. frequent	e) patterns
6. inner	f) motif

IV. Give English equivalents for the following word combinations:

- a) світський
- b) впливати на щось
- c) мечеть
- d) нескінченність
- e) до того ж
- f) круглий купол
- g) цитата

Architecture of mosques and buildings in Muslim countries

I. Read and translate the text.

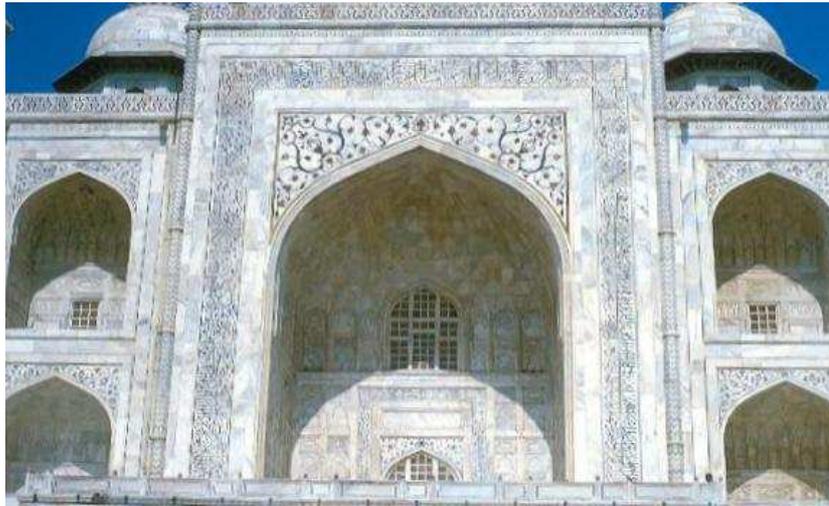


Many forms of Islamic architecture have evolved in different regions of the Islamic world. Notable Islamic architectural types include the early Abbasid buildings, T-type mosques, and the central-dome mosques of Anatolia.

Arab-plan or hypostyle mosques are the earliest type of mosques, pioneered under the Umayyad Dynasty. These mosques are square or rectangular in plan with an enclosed courtyard and a covered prayer hall. Historically, because of the warm Mediterranean and Middle Eastern climates, the courtyard served to accommodate the large number of worshipers during Friday prayers. Most early hypostyle mosques have flat roofs on top of prayer halls, necessitating the use of numerous columns and

supports. One of the most notable hypostyle mosques is the Mezquita in Córdoba, Spain, as the building is supported by over 850 columns. Frequently, hypostyle mosques have outer arcades so that visitors can enjoy some shade. Arab-plan mosques were constructed mostly under the Umayyad and Abbasid dynasties. The simplicity of the Arab plan limited the opportunities for further development, and as a result, these mosques gradually fell out of popularity.

IWAN



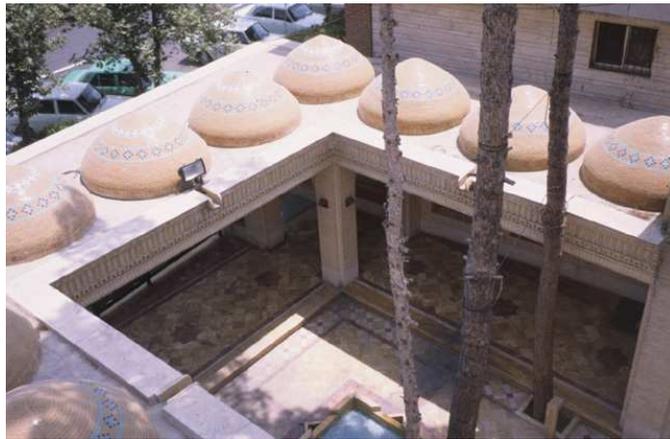
The iwan entrance to the Taj Mahal in Agra

An iwan (Persian *ن اویا* derived from Pahlavi word *Bān* meaning house) is defined as a vaulted hall or space, walled on three sides, with one end entirely open.

Iwans were a trademark of the Sassanid architecture of Persia, later finding their way into Islamic architecture. This transition reached its peak during the Seljuki era when iwans became established as a fundamental design unit in Islamic architecture. Typically, iwans open on to a central courtyard, and have been used in both public and residential architecture.

Iwan mosques are most notable for their domed chambers and iwans, which are vaulted spaces open out on one end. In iwan mosques, one or more iwans face a central courtyard that serves as the prayer hall. The style represents a borrowing from pre-Islamic Iranian architecture and has been used almost exclusively for mosques in Iran. Today, iwan mosques are no longer built.

SAHN



A simple Sahn, with a howz in the middle

Almost every mosque and many houses and buildings in areas of the Muslim World contain a religious courtyard known as a sahn, which are surrounded on all sides by an arcade. Sahns usually feature a centrally positioned, symmetrical axis pool known as a howz, where ablutions are performed. Some sahn also contain drinking fountains.

If a sahn is in a mosque, it is used for performing ablutions. If a sahn is in a traditional house or private courtyard, it is used for bathing, for aesthetics, or for both.

Arabesque

An element of Islamic art usually found decorating the walls of mosques and Muslim homes and buildings, the arabesque is an elaborate application of repeating geometric forms that often echo the forms of plants, shapes and sometimes animals (specifically birds). The choice of which geometric forms are to be used and how they are to be formatted is based upon the Islamic view of the world. To Muslims, these forms, taken together, constitute an infinite pattern that extends beyond the visible material world. To many in the Islamic world, they in fact symbolize the infinite nature of the creation of the one God (Allah). Arabesque is used in mosques and building around the Muslim world, and it is a way of decorating using beautiful, embellishing and repetitive Islamic art instead of using pictures of humans and animals (which is forbidden Haram in Islam).

Calligraphy

Arabic calligraphy is associated with geometric Islamic art (the Arabesque) on the walls and ceilings of mosques as well as on the page. Contemporary artists in the Islamic world use calligraphic inscriptions or abstractions in their work.

Calligraphy for the Muslim is a visible expression of the highest art of all, the art of the spiritual world. Calligraphy has arguably become the most venerated form of Islamic art because it provides a link between the languages of the Muslims with the religion of Islam.

II. Answer the following questions:

- 1) What are notable Islamic architectural types?
- 2) What are the features of hypostyle mosques?
- 3) What does the word iwan mean?
- 4) How is religious courtyard called in the Muslim World?
- 5) What purposes is sahn used for?
- 6) What is the arabesque?
- 7) What does Calligraphy for the Muslim mean?

III. Define whether sentences are True (T) or False (F):

1. Arab-plan or hypostyle mosques are the earliest type of mosques.
2. Arab-plan mosques are unpopular.
3. Sahns do not contain drinking fountains.
4. Arabesque is an elaborate application of repeating geometric forms.
5. Arabic calligraphy is associated with geometric Islamic art.
6. Calligraphy provides a link between the languages of the Muslims and the nature.

IV. Rewrite the sentences using the phrases in brackets so that the meaning stays the same.

1. I think I'll stay at home and watch TV.
(probably) _____

2. I don't think Mark will be able to come to lunch.
(probably won't) _____
3. Australia has a good chance of winning the next Rugby World Cup.
(might) _____
4. I am working late tomorrow so it's possible that I won't see you.
(might not) _____
5. I'm almost certain we'll buy a flat next year.
(probably) _____
6. It's possible that my father won't come home for another two months.
(may not) _____

V. Complete the sentences with a form of *can* or *be able to*.

1. We really enjoy _____ sunbathe in our own garden.
2. I know your name, but I _____ remember it. (negative)
3. In my garden you _____ hear the sea.
4. She _____ ski really well.
5. I would love to _____ retire.
6. When he is eighteen he _____ vote in the election.
7. I want to _____ play the violin when I grow up.
8. The goalkeeper fell over but he _____ catch the ball.

Indian temples

I. Read and translate the text.

Almost all Indian art has been religious, and almost all forms of artistic tradition have been deeply conservative. The Hindu temple developed over two thousand years and its architectural evolution took place within the boundaries of strict models derived solely from religious considerations. Therefore the architect was obliged to keep to the ancient basic proportions and rigid forms which remained unaltered over many centuries.

Even particular architectural elements and decorative details which had originated long before in early timber and thatch buildings persisted for centuries in

one form or another throughout the era of stone construction even though the original purpose and context was lost. The horseshoe shaped window is a good example. Its origins lie in the caitya arch doorway first seen in the third century B.C. at the Lomas Rishi cave in the Barbar Hills. Later it was transformed into a dormer window known as a gavaksha; and eventually it became an element in a purely decorative pattern of interlaced forms on the towers of medieval temples. Thus, Indian architecture is extremely conservative. Likewise, the simplicity of building techniques like post and beam and corbelled vaulting were preferred not necessarily because of lack of knowledge or skill, but because of religious necessity and tradition.

North Indian Temples



Jagadamba Temple - Khajuraho - Madhya Pradesh

The Nagara style which developed in the fifth century is characterized by a beehive shaped tower (called a shikhara, in northern terminology) made up of layer upon layer of architectural elements such as kapotas and gavaksas, all topped by a large round cushion-like element called an amalaka. The plan is based on a square, but the walls are sometimes so broken up that the tower often gives the impression of being circular. Moreover, in later developments such as in the Chandella temples, the central shaft was surrounded by many smaller reproductions of itself, creating a spectacular visual effect resembling a fountain.

South Indian Temples



From the seventh century the Dravida or southern style has a pyramid shaped tower consisting of progressively smaller storeys of small pavilions, a narrow throat, and a dome on the top called a shikhara (in southern terminology). The repeated storeys give a horizontal visual thrust to the southern style.

Less obvious differences between the two main temple types include the ground plan, the selection and positioning of stone carved deities on the outside walls and the interior, and the range of decorative elements that are sometimes so numerous as to almost obscure the underlying architecture.

The vast areas of India were dominated by the 'northern' style, i.e. from the Himalayas to the Deccan. The 'southern' style, being restricted to a much smaller geographical area, was more consistent in its development and more predictable in its architectural features and overall appearance.

Temples of the Deccan



In the border areas between the two major styles, particularly in the modern states of Karnataka and Andhra Pradesh, there was a good deal of stylistic overlap as well as several distinctive architectural features. A typical example is the Hoysala temple with its multiple shrines and remarkable ornate carving. In fact such features are sometimes so significant as to justify classifying distinct sub-regional groups.

From the eighth century onward with the development of ever more sophisticated rituals and festivals, the Hindu temple especially in the south started to expand and become more elaborate. But the most significant visual difference between the later northern and southern styles is the gateways. In the north the shikhara remains the most prominent element of the temple and the gateway is usually modest. In the south enclosure walls were built around the whole complex and along these walls. Gateways called gopurams led the devotees into the sacred courtyard.

II. Define whether sentences are True (T) or False (F):

1. Almost all Indian art is religious.
2. The ancient basic proportions and rigid forms remained unaltered over two centuries.
3. The Nagara style is characterized by a beehive shaped tower called a shikhara.
4. The central shaft was surrounded by many smaller reproductions of itself in the Chandella temples.
5. The Dravida and the southern style are the same notions.
6. The southern style in India prevails over the northern style.
7. From the ninth century onward the Hindu temple started to expand and become more elaborate.

III. Give English equivalents for the following word combinations:

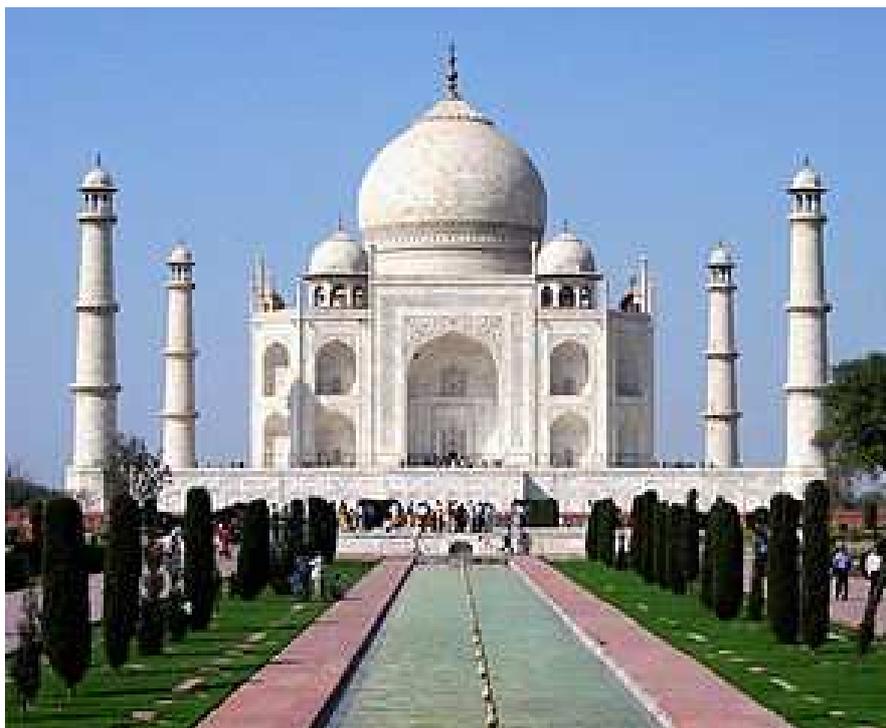
- a) набожна людина
- b) священний двір
- c) середньовічний храм
- d) гробниця
- e) видатний елемент
- f) ворота
- g) різьблення по дереву
- h) архітектурний розвиток

IV. Find synonyms for the following words:

1. evolution	a) characteristic
2. construction	b) custom
3. tradition	c) development
4. spectacular	d) erection
5. feature	e) impressive
6. main	f) important
7. significant	g) major

TAJ MAHAL

I. Read and translate the text.



The Taj Mahal at Agra, one of the 7 wonders of the world is undoubtedly the finest achievement and the most exquisite of all Moghul buildings. It ranks among the most perfect monuments in the world due its flawless beauty. It was erected by Shah Jahan to the memory of his beloved queen, Arjumand Banu Begum, called Mumtaz Mahal. A year after her death in 1631 he began the Taj and it took twenty-two years to complete.

The Taj Mahal stands in a walled enclosure measuring around 580x305m. The red sandstone gateway at the south leads to a spacious ornamental garden (305sq m). Near the river Jamuna on the northern side of the enclosure, a low red stone terrace extends from one end of the wall to the other, terminating on both sides in a red sandstone building. There is a mosque on the west side, and the eastern one serves as mihman-khana (guest house) or as majlis khana (assembly hall).

In the centre, on a white marble platform almost seven meters high, is the rauza in glittering white marble, with four minarets at the corners of the plinth. The beveled angles give this cubicle structure the shape of an irregular octagon. The elevation, equal on all four sides, is typically Islamic in design.

The greatest elegance of the Taj lies in its beautiful white marble dome surrounded by four chatris (smaller domed pavilions). The dome rests on a low drum. Lotus petals encircle its restricted base. It curves up gently to the pointed top, covered with radiating petals. While the dome reveals Persian influence, the four chatris are purely Indian.

Delicacy and grace characterize the beauty of the Taj Mahal. The white marble from the Makrana quarries has a texture of the finest quality. It shows subtle variations in colour with every change of light; dazzling white in the noontime sunshine, tinted pale rose at sunset, and gleaming like a pearl in the moonlight.

Light and shade are cleverly arranged. There are no outstanding parts producing sharp contrasts of light and shadow; the shadows are soft and delicate. The arched recess of doors and windows are just deep enough to bring out their pointed shape. This softness of shadows is one of the great charms of the Taj.

The lovely tomb building together with the four minarets form a harmonious open design. The setting also fits such a lovely masterpiece. Pair of buildings in red sandstone flanks the glittering white edifice. The contrast of the dark green trees and red sandstone buildings enhances its white loveliness all the more.

II. The halves of the following sentences are mixed up. Put them in the right places.

1. The Taj Mahal is one of	a) to complete the Taj Mahal
2. It took twenty-two years	b) its most spectacular feature
3. The marble dome that surmounts the tomb is	c) the most perfect monuments in the world.
4. The height of the dome is	d) an onion dome
5. Because of its shape, the dome is often called	e) about the same size as the base of the building
6. The exterior decorations of the Taj Mahal are	f) among the finest to be found in Mughal architecture.

III. Match the words with their definitions:

1. gateway	a) a plane figure of eight sides and eight angles.
2. sandstone	b) metamorphosed limestone, consisting of recrystallized calcite or dolomite.
3. minaret	c) a structure for enclosing such an opening or entrance.
4. octagon	d) a common sedimentary rock consisting of sand, usually quartz, cemented together by various substances.
5. marble	e) a lofty, often slender, tower or turret attached to a mosque.

IV. Fill in the gaps:

The Taj's Love Story

Mausoleum, monument, craftsmen, beauty, symmetry, platform, arabesque.

The Taj Mahal is a real a)_____ of one man's love for a woman. The story is sad. In 1631, when his wife died in childbirth, the emperor Shah Jahan brought to Agra the most skilled b)_____ from all Asia and even Europe, to build the white marble c)_____ that is the Taj Mahal. He intended to build a black marble mausoleum for himself, and the link between the two was to be a silver bridge. This fantastic plan suffered a dramatic and permanent setback when the Shah himself died.

Its stunning architectural d)_____ is beyond description, particularly at dawn and at sunset when it seems to glow in the light. On a foggy morning, it looks as though the Taj is suspended in mid-air when viewed from across the Jamuna river. This is, of course, an illusion. The Taj stands on a raised square e)_____ with its four corners truncated, forming an unequal octagon. The architectural design uses the interlocking f)_____ concept, in which each

element stands on its own and perfectly integrates with the main structure. It uses the principles of self-replicating geometry and g)_____ of architectural elements.

Chinese architecture

I. Read and translate the text.

Chinese architectural style is a unique architectural style which uses timber as the primary construction material. As one of the three famous architectural styles, together with Western and Islamic architecture, Chinese architecture is distinguished by the following main characteristics: 1) its greatest achievements are the royal palaces and city planning, which reflect China's supreme imperial authority and social estate system; 2) its courtyards were built around an axis; 3) it is in perfect harmony with nature. Chinese architectural styles resonate with the moral principles, aesthetic conceptions and values of Chinese people.

It is generally accepted that traditional Chinese architectural style can be classified into several categories: royal palaces, residential houses, and religious temples and pagodas and tombs. However, the architectural styles of different regions and nationalities in China may vary in characteristics and functions. Travelling all the way from the Northern China to the South, from the Yellow River down to the Yangtze River, from the province of Heilongjiang, Shandong, and Shanxi to Tibet, Yunnan, and Guangxi, you will be moved by the works of Chinese architects whose differences styles, structures, and materials can be found in various regions, even in different districts within the same city.

Residential houses in China include different kinds of public and private buildings, such as ancestral halls, guildhalls, academy buildings, and other terraces for sightseeing. Most of the residential houses were built in the Ming and Qing Dynasties, manifesting essential connotation of traditional culture. Constructions and buildings where princes and imperial members lived in were mostly built in the Qing Dynasty. Houses of common people in China were also reserved. Particularly, local-style dwelling houses are different in styles and structures, directly reflecting local characteristics in terms of regionalism.

SIHEYUAN(QUADRANGLE)



siheyuan (quadrangle: a compound with houses around a square courtyard (Beijing)).

A small or medium-size siheyuan usually has its main or only entrance gate built at the southeastern corner of the quadrangle with a screen wall just inside to prevent peeping in from the outside.

Such a resident offers space, comfortable and quite privacy. It is also good for security as well as protection against dust and storms. Grown with plants and flowers, the court is also a sort of a garden.

All the quadrangles, as product of feudal society, were built in accordance with a strict set of rules. From their size and style one could tell whether they belonged to private individuals or powerful and rich people.

The simple house of an ordinary person has only one courtyard with the main building on the north facing, across the court, the southern building with rooms of northern exposure and flanked on the sides by the buildings of eastern and western chambers. The mansion of the titled or very rich family has two or more courtyards, one behind another, with the main building separated from the view of the southern building by a wall with a fancy gate or by a guoting (walk-through pavilion).

LOCAL-STYLE DWELLING HOUSES IN ANHUI:



Most residential houses in Anhui have two storeys with roof-tips pointing to sky. White walls and perfect outline of structures stand for typical Jiangnan residential houses, neat and elegant.

II. Answer the questions:

1. What is the main construction material in China?
2. What are the main characteristics of Chinese architecture?
3. What is the classification of Chinese architectural style?
4. What do residential houses in China include?
5. Describe the simple house of an ordinary person.

III. Fill in the gaps, using the text.

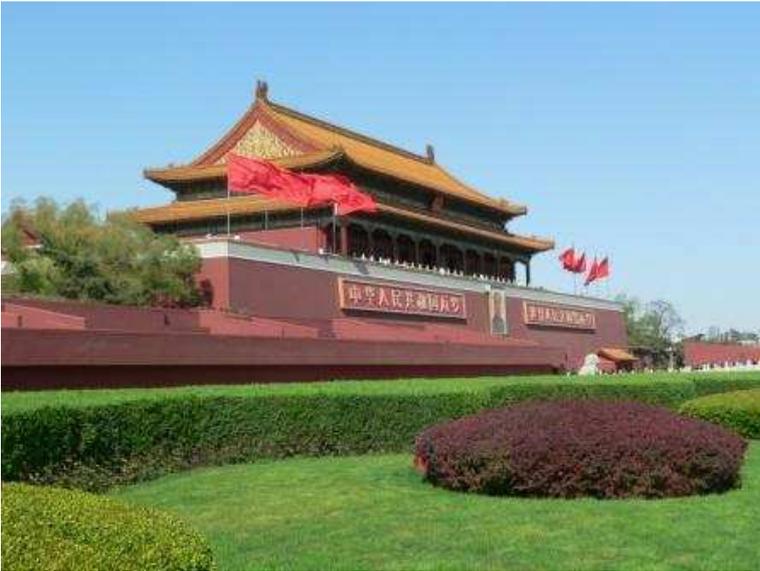
1. Traditional Chinese architectural style can be classified into _____ categories.
2. The architectural styles of different regions and nationalities in China may vary in characteristics and _____.
3. Residential houses in China include different kinds of _____ and private buildings.
4. Most of the residential houses were built in the _____ and _____ Dynasties.
5. The simple house of an ordinary person has only one _____.

IV. Fill in the blanks with the suitable words: *floor* or *storey*.

1. Their new house has four _____ including the attic.
2. Take the elevator to the 21st _____.
3. A dog was barking at the passers-by from a balcony in the fourth _____.
4. All the windows of the upper _____ were wide open.
5. We mounted the stairs to the fifth _____ and knocked at the door.

THE FORBIDDEN CITY

I. Read and translate the text.



At the beginning of the fifteenth century AD, the third Ming Emperor, Yung-lo created one of the most dazzling architectural masterpieces in the world.

The Forbidden City is the best preserved imperial palace in China and the largest ancient palatial structure in the world.

It is recognized as one of the most important five palaces in the world (the other four are the Palace of Versailles in France, Buckingham Palace in the UK, the White House in the US and the Kremlin in Russia). The splendid architecture of the Forbidden City represents the essence and culmination of traditional Chinese architectural accomplishment.

In 1961 the Forbidden City was listed as one of the important historical monuments under the special preservation by the Chinese central government. It was nominated as World Cultural Heritage by UNESCO in 1987. The Palace Museum is a real treasure house of Chinese cultural and historical relics.

The Forbidden City, situated in the very heart of Beijing, was home to 24 emperors of the Ming and Qing Dynasties. The construction of the grand palace started in the fourth year of Emperor Yongle of the Ming Dynasty (1406) and ended in 1420. In ancient times, the emperor claimed to be the son of Heaven, and therefore Heaven's supreme power was bestowed upon him. The emperors' residence on earth was built as a replica of the Purple Palace where God was thought to live in Heaven. Such a divine place was certainly forbidden to ordinary people and that is why the Forbidden City is so named.

The Forbidden City covers an area of about 72 hectares with a total floor space of approximately 150, 000 square meters. It consists of 90 palaces and courtyards, 980 buildings and 8,704 rooms. To represent the supreme power of the emperor given from God, and the place where he lived being the center of the world, all the gates,

palace and other structures of the Forbidden City were arranged about the south-north central axis of Beijing.

The Forbidden City is divided into two parts. The Outer Court, which includes the southern and central sections, centres on three halls which were used for ceremonial purposes, such as coronations, investitures and imperial weddings. Apart from ceremony, the Outer Court also houses the Imperial Library, archives and lantern storage. The Inner Court was where the Emperor worked and lived with his family, eunuchs and maid-servants. The inner court is composed of the three main structures at the rear of the Forbidden City, namely the Palace of Heavenly Peace (Qianqinggong), the Palace of Union and Peace (Jiaotaidian) and the Palace of Terrestrial Tranquility (Kunninggong). Besides the three main buildings there are the six eastern palaces and six western palaces, where the emperor used to handle every day affairs. Those palaces have been converted into exhibition halls, where a spectacular set of imperial collections is displayed.

Outside the main gate to the Forbidden City, the Meridian Gate faces a square where imperial corporal punishments were sometimes carried out. To the south of that square stands Tiananmen Gate.

At the northern end of the Forbidden City is the imperial garden. It is home to some relatively old trees, most between 100 and 300 years of age.

The Imperial garden offers an aesthetic change from the crimson and gray building complex to a colorful and luxuriant atmosphere.

The individual buildings within the Forbidden City housed many important members of the Chinese aristocracy. The famous national civil service exams were given inside one of these buildings. The royal color was yellow, and that color dominates the rooftops. On each corner of the roofs, there are small statuettes, the number of which designated the power of the person living within the building. The number 9 was reserved for the emperor. Only one building has 10 statuettes at each corner.

Today the Forbidden City is a public museum, drawing the attention of millions of travellers and tourists from around the world.

II. Answer the questions:

1. Where is the Forbidden City situated?
2. When did the construction of the Forbidden City start?
3. What are the most important five palaces in the world?

4. What area does the Forbidden City cover?
5. What color dominates the rooftops?

III. Fill in the gaps, using the text:

1. The Forbidden City is the best preserved imperial _____ in China and the largest ancient palatial structure in _____.
2. The Forbidden City consists of _____ palaces and courtyards, _____ buildings and 8,704 rooms.
3. The Outer Court houses the _____ Library.
4. The Inner Court was where the Emperor _____ and lived with his family and maid-servants.
5. Today the Forbidden City is a _____, drawing the attention of millions of travellers and tourists from around the world.

IV. Find words in the text that mean:

1. _____ A large house that is the official home of a king, queen or other person of high social rank.
2. _____ The group of people who officially control a country.
3. _____ An exact copy of an object.
4. _____ A building where objects of historical, scientific or artistic interest are kept.
5. _____ A work of art which is done or made with great skill, and is often a person's greatest work.
6. _____ A male ruler of an empire.

V. Fill in the gaps, using the words from ex. IV.

1. The Queen has agreed to open Buckingham _____ to the public.
2. The Forbidden City was home to 24 _____ of the Ming and Qing Dynasties.
3. The minister has announced that there will be no change in _____ policy.
4. The ship is an exact _____ of the original Golden Hind.
5. 'The Last Supper' is widely regarded as Leonardo da Vinci's _____.
6. The Solomon R. Guggenheim _____ was founded in 1937.

Japanese Architecture

I. Read and translate the text.

Japanese architecture, like Japanese culture, is distinct and unique but at the same time incorporates elements imported from China, notably Buddhism. The native religion of Japan, Shinto, is described as a form of nature's idealization, and was largely responsible (some scholars have suggested) for Japan's being able to retain a distinct cultural identity in the face of the strong Chinese influence. The "way of the gods" (the literal meaning of Shinto) is based on deep respect for kami, an eternal super consciousness believed to be inherent throughout nature.

The rich tradition of Japanese architecture is best exemplified by the shrines of the Shinto. These shrines were customarily destroyed every 20 years and then rebuilt in an exact replica of the previous shrine. The Ise Shrine (55 x 127 yards) is the most well known of the Shinto shrines. Its columns made from cypress trees, four concentric fences, and the traditional thatched roof, convey a sense of purity, quality, and simplicity for the shrine. Most modern and domestic architecture remain in accordance with the style of these shrines and the typical ceremonial tea houses. Often houses are supplemented with a garden and bamboo fence, which intimately relates the architecture to the land. This style was and continues to be highly important to Japan, and has greatly influenced the practices of Western architecture.

Castles

Japanese castles are an extremely important part of the country's history in architecture. These castles were constructed all over Japan for feudal lords called Daimyo. Castles served as a place for Daimyo to retreat after a battle or as a storage place for food and weapons. During these times, Daimyo also used the castles as a symbol of their wealth and power.

Today only 12 of the original castles exist.

Tea rooms

Tea rooms, often found in tea gardens are much more than just rooms used for sipping tea. Tea rooms usually have shingled roofs and clay walls. The architectural

concept is "simplicity". The use of wood in tea houses is important, rather than the use of space and light. Many kinds of wood are used, including Japanese cedar, red pine, white cedar, chestnut, and bamboo. Sometimes the clay walls were covered with soot to enhance the wood.

II. Answer the questions:

1. What is the native religion of Japan?
2. What represents the rich tradition of Japanese architecture?
3. What is the main feature of Japanese houses?
4. What is the architectural concept of tea rooms?
5. What material is important in tea houses?

III. Give English equivalents for the following word combinations:

- a) солом'яний дах
- b) місце поклоніння
- c) каштан
- d) бамбукова огорожа
- e) культурна належність
- f) дах вкритий дранкою

IV. Complete the table below using a dictionary. The first one has been done for you.

Noun	Verb	Adjective
influence	influence	influential
simplicity		
	practise	
		descriptive
construction		

LANDSCAPE GARDENING

I. Read and translate the text.

For centuries, one of the most popular things to do around one's home was to create a garden. Gardens were filled with flowers, plants, or food and they provided enjoyment and sustenance for the homeowner.

The tradition of gardening continues to this day as gardens of all types and shapes can be found around nearly every home.

Some gardens are obviously more than a haphazard collection of plants and flowers. They are planned, organized, beautiful, and often thematic; and those gardens are the product of landscape gardening.

Landscape gardening has origins that go back centuries and to different continents. English gardens of the 18th century had many elements that are associated with modern landscape gardening. English gardens (or landscape gardens as they were known in England) often revolved around a pond, and would have small bridges and pavilions that were used as vantage points.

In the Far East, Japanese and Chinese gardens were prevalent, and remain popular to this day. Eastern gardens typically had stone features, and like English gardens they often feature water, bridges, and a pavilion.

However, landscape gardening is not limited to those styles, and the evolution of the craft has taken many turns through the decades. Modern gardens may incorporate the features of their ancestors, but they can have a personality of their own as well.

Landscape gardening demonstrates many aspects of architecture. Attention to color, line, scale, and texture all must come together to create an aesthetically pleasing garden. Good color schemes typically match similar colors to other similar colors, such as warm reds to warm yellows, and cool blues to cool greens. Warm colors tend to excite the senses and attract attention, while cooler colors are likely to have a relaxing effect (perfect for a mediation garden!).

Another classic element of architecture that gardening requires is attention to the line. The line of a design relates to the way a viewer's eye follows the groupings of plants and border areas. Smooth flowing lines or abrupt straight lines can impart a different feel and elicit a different response from those who are viewing the garden. Texture and form are closely related to the concept of the line.

Form relates to the prevalent shapes in your garden, such as triangular conifers or rounded bushes, and texture is predicated by the way various plants work together to create a look, whether that look is soft, coarse, or something in between.

Once you have established your selection of plants and flowers and your textures and forms, you can complement those items with a hardscape that is fitting with your tastes. Fences, walls, stonework, fountains, statues, and gazebos, they are all hardscape items that are integral to landscape and they will help provide your theme and focal points. Install those items first and then fill around them to create a wonderful garden.

Landscape gardening remains popular not only because of its beauty but its function as well. A garden cannot only provide solitude and harmony to your home; it can help augment the best parts of your property such as a great view or wandering creek.

A landscape garden can also be used to block out undesirable views, or to cover parts of your property that are not appealing. Ultimately the direction you go with landscape gardening is entirely up to you.

II. Define whether sentences are True (T) or False (F):

1. Garden is a piece of land next to and belonging to a house, where flowers and other plants are grown.
2. English gardens of the 18th century had many elements that are associated with modern landscape gardening.
3. Japanese and Chinese gardens are not popular nowadays.
4. Landscape gardening is limited to English and Japanese gardens.
5. Landscape gardening remains popular because of its beauty.

6. Hardscape items help to create thematic gardens.
7. English gardens often feature water, bridges, and a pavilion.

III. Fill in the gaps with the following words:

Roots, blossom/flower (2), stalks, bud, thorns, gardener

1. A tree's _____ go a long way under ground.
2. I'm not much of a _____.
3. Most fruit trees _____ in spring.
4. A flower that is just about to open is called _____.
5. Flowers will not _____ unless they get enough water and light.
6. Flowers last longer in a vase if you crush the end of their _____.
7. Take care not to prick yourself. That plant has sharp _____.

IV. Match each adjective on the left with the nouns on the right. Use each word once only.

1. haphazard	a) lines
2. warm	b) collection
3. straight	c) points
4. focal	d) bushes
5. great	e) colors
6. rounded	f) view
7. prevalent	g) shapes

JAPANESE GARDENS

I. Read and translate the text.

"A Japanese Garden is not only a place for the cultivation of trees and flowering shrubs, but one that provides secluded leisure, rest, repose, meditation, and sentimental pleasure..."

The Garden speaks to all the senses, not just to the mind alone."

*— Professor Takuma Tono,
Designer of the Portland Japanese Garden*

At the heart of a Japanese garden is harmony with nature. Through the careful use of plants, stones, and water, areas of serene and quiet beauty emerge. These peaceful spots in the Garden lend themselves to meditation and contemplation. The 5.5 acre Japanese Garden is composed of five distinct garden styles:

1. The Flat Garden

Flat Garden is notable for its expansiveness. Encircling the hundred-floormat Pavilion hall, this is the most formal of the five gardens. Deep evergreen foliage contrasts with white shirakawa sand raked in careful patterns representing water.



The seascape of sand and its prized plantings evoke each of the four seasons. This is a garden of complete, meditative balance. Two islands in the shapes of a sake cup and gourd connote pleasure—spiritual and temporal. The sake gourd represents happiness and hospitality, while the circle of the sake cup also has the deep Buddhist significance of enlightenment.

2. The Strolling Pond Garden

The Moon Bridge takes you over the serene Upper Pond where crane sculptures huddle at the shore. As you walk south, a creekside path leads to the Lower Pond. There the Zig Zag Bridge wanders through famed iris beds which bloom in late June. Rising from the pond are tortoise and crane stones—Japanese symbols of longevity. The Lower Pond rests beneath the rushing Heavenly Falls, a representation of the Milky Way. Directly in front of the falls you'll find seven paving stones representing the Big Dipper constellation.

3. Tea Garden

The pathway to the ceremonial Tea House, called Kashin Tei or Flower Heart House, is lined by two little gardens. The outer garden (soto roji) contains an old-fashioned well and a sheltered waiting station for the Tea Ceremony.



Upper Pond viewed from the Moon Bridge

The inner garden (uchi roji) surrounds the Tea House in a humble, secluded atmosphere. Plantings in the Tea Garden are not showy, for nothing should detract from the calming aspect of the ritual of tea. This is a garden within a garden in which everything has its purpose. Each plant, water feature, and stepping stone is chosen to make the Tea Ceremony harmonious and precise.



inside Kashin Tei Tea House

4. The Natural Garden

Here you will discover ponds, waterfalls, and shallow streams as they meander under tiny bridges. Trees, shrubs, ferns, and mosses grow in their natural state. Along the path, visitors will come upon a carved-stone roadside guardian. This figure is Jizo, the kindly Bodhisattva who protects travelers, children, and all those in need.



In many ways the Natural Garden is the most intimate of the five gardens. Symbolic of the spiritual journey of life, this is a place where you are enveloped in plantings, flowing water, and views that change with each step.

5. The Sand and Stone Garden



The most abstract of Japanese garden forms, the Sand and Stone Garden reveals the stark simplicity of weathered stones rising from a sea of raked sand. This garden style is typically found in Zen monasteries.

6. Complete the table

Types of Japanese gardens	Materials	Structure forms

UNIT 3 HOUSES AND HOMES

HOUSE

I. Fill in the gaps with the following words:

Water, materials, environment, guest areas, social status.

House is a dwelling place, constructed as a home for one or more persons. The physical characteristics of a house depend on the surrounding _____ (climate and terrain), available building materials, technological know-how, and such cultural determinants as the _____ and economic resources of the owner or owners. In rural areas until modern times, people and animals were often housed together; today's houses frequently include storage, work, and _____, with several separate spaces for different activities. Houses can be wholly below ground level, dug out of the earth, or can be partly below and partly above the ground; most contemporary houses are built aboveground (over cellars in cold climates). The primary structural _____ employed are wood, sod, brick, and stone, with concrete and steel increasingly used, especially for city dwellings; many of these materials are used in combination also. Choice of material depends on prevalent style, individual taste, and availability. Depending on climate and available fuels, provisions may be made for heating. In modern industrialized areas, running _____ and interior toilets are common. Whatever its size and conveniences, a house both contains and stands for the basic human social unit.

II. Complete each sentence with the words *home, house* or a word formed from one of these words.

1. The old couple decided to live in an old people's _____.
2. Jane can't stand washing and ironing and other _____.
3. Graham bought a terraced _____ in a quiet city street.
4. Many _____ people sleep in the streets in London.
5. I come from Newcastle. It's my _____ town, you could say.
6. Paul used to live on the river on a _____ boat.
7. When I went to boarding school I felt very _____ sick at first.
8. Pour yourself a drink and make yourself at _____.

III. Match the rooms with their definitions:

1. box room	a. a room where people eat.
2. cloakroom	b. the entrance passage to a house.
3. conservatory	c. a small room used for storage.
4. dining room	d. a small room where people put their coats.
5. drawing room	e. a room where books are kept.
6. hall	f. a small room used to store kitchen and dining items.
7. larder	g. a room where guests sleep.
8. library	h. a room in stately homes where rich people entertain.
9. pantry	i. old fashioned word for living room.
10. parlour	j. A greenhouse attached to a house for the display of plants.
11. sitting room	k. A small room used for the storage of food.
12. spare room/guest room	l. Another name for living-room.

HOUSES IN ENGLAND

Home is a place you grow up wanting to leave, and grow old wanting to get back to.

~John Ed Pearce

I. Read and translate the text.

Most people in England live in urban areas. Towns and cities are spreading into their surrounding environment to cope with the increase populations. In England, an average of 7,000 hectares of farmland, countryside and green space were converted to urban use every year between 1985 and 1998. This is almost the equivalent size of 9,600 international football pitches!

More people are buying their own homes than in the past. About two thirds of the people in England and the rest of Britain either own, or are in the process of buying, their own home. Most others live in houses or flats that they rent from a private landlord, the local council, or housing association.

People buying their property almost always pay for it with a special loan called a mortgage, which they must repay, with interest, over a long period of time, usually 25 years.

Most houses in England are made of stone or brick from the local area where the houses are built. The colours of the stones and bricks vary across the country.

England has many types of homes. In the large cities, people often live in apartments, which are called flats. In most towns, there are streets of houses joined together in long rows. They are called terraced houses.

The main types of houses in England are:

Detached (a house not joined to another house)

Semi-detached (two houses joined together)

Terrace (several houses joined together)

Flats (apartments)

A big problem in England is the rising cost of houses. The cost of housing in England has increased much faster than people's wages making it impossible for first-time buyers to get on the housing ladder unless they are in especially well-paid jobs, are able to call upon rich relatives or are prepared to buy jointly with friends.

II. Answer the questions:

1. Where do most people in England live?
2. How do people pay for their house?
3. What material are most houses in England made of?
4. What are the main types of houses in England?

III. Match words with their definitions:

1. bungalow	a) one of two dwellings, one above the other, in one building.
2. condominium	b) contains one dwelling unit and is not attached to any other building.
3. detached home	c) commonly a one-story house with a low-pitched roof.
4. duplex	d) a multi-unit building, with the individual's unit privately owned, and the building and land owned by all individual unit owners.
5. semi-detached	e) contemporary, triangular-shaped home with its roof extending down towards the ground on both sides.
6. A-Frame	f) One of two dwellings, attached by a common wall that is located within one building.
7. townhouse	g) a series of multi-level houses, connected by common sidewalls and forming a continuous group, each with private entrances.

IV. Choose the correct answer.

1. They live in a(n) house which stands by itself in a field.
a) attached b) detached c) detaching d) semi-detached
2. Having made his fortune he now in great luxury in a large house in the country.
a) dwells b) inhabits c) leaves d) lives
3. My brother lives on the eleventh floor of that of flats.
a) block b) building c) house d) tower
4. His house is nothing out of the, it's just an average four-roomed house.
a) normal b) ordinary c) typical d) usual
5. Going down the street, she walked past a long of houses, all exactly alike.
a) queue b) rank c) row d) train
6. In the village he was looked up to as the lord of the
a) castle b) fortress c) manor d) tower
7. He keeps all his tools and do-it-yourself equipment in a in the garden.
a) barn b) hut c) shed d) stable
8. Our house isn't joined to the other houses in the street: it's
a) attached b) disconnected c) detached d) divided
9. The new police station is to be built the main square.
a) close b) near c) neighbourhood d) side
10. I am staying in a youth in the centre of the town.
a) hostel b) inn c) pub d) stable

V. Supplement.

Popular sayings concerning home

- Home follows the family
- Home is where the heart is
- Home is where the hearth is
- Home is where you make it
- Love makes a house a home
- There's no place like home
- You can't go home again
- An Englishman's home is his castle
- Everybody wants to go home
- Make yourself at home
- Home is where the hurt is
- Home Sweet Home
- Charity begins at Home
- A home is in all hearts
- Consider yourself at home

UNIT 4 FAMOUS ARCHITECTS AND THEIR WORKS

FRANK LLOYD WRIGHT

I. Read and translate the text.

"The longer I live the more beautiful life becomes. If you foolishly ignore beauty, you will soon find yourself without it. Your life will be impoverished. But if you invest in beauty, it will remain with you all the days of your life."
In The Ultimate Success Quotations Library, 1997.

Frank Lloyd Wright is without a doubt America's most famous architect, and yet he never attended architecture school.

During his 70-year career, Frank Lloyd Wright designed 1,141 buildings, including homes, offices, churches, schools, libraries, bridges, and museums. Five hundred and thirty-two of these designs were completed, and 409 still stand.

Wright practiced what is known as organic architecture, an architecture that evolves naturally out of the context, most importantly for him the relationship between the site and the building and the needs of the client. For example, houses in wooded regions made heavy use of wood, desert houses had rambling floor plans and heavy use of stone, and houses in rocky areas such as Los Angeles were built mainly of cinder block.

Wright's creations took his concern with organic architecture down to the smallest details. From his largest commercial commissions to the relatively modest Usonian houses, Wright conceived virtually every detail of both the external design and the internal fixtures, including furniture, carpets, windows, doors, tables and chairs, light fittings and decorative elements. He was one of the first architects to design and supply custom-made, purpose-built furniture and fittings that functioned as integrated parts of the whole design, and he often returned to earlier commissions to redesign internal fittings. Some of the built-in furniture remains, while other restorations have included replacement pieces created using his plans. His Prairie houses use themed, coordinated design elements (often based on plant forms) that are repeated in windows, carpets and other fittings. He made innovative use of new

building materials such as precast concrete blocks, glass bricks and zinc comes (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 was also one of the first architects to design and install custom-made electric light fittings, including some of the very 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).

As Wright's career progressed, so did the mechanization of the glass industry. Wright fully embraced glass in his designs and found that it fit well into his philosophy of organic architecture. 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 compared 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 utilizing 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 most well-known art glass is that of the Prairie style. The simple geometric shapes that yield to very ornate and intricate windows represent some of the most integral ornamentation of his career.

Wright responded to the transformation of domestic life that occurred at the turn of the 20th century, when servants became a less prominent or completely absent from most American households, by developing homes with progressively more open plans. This allowed the woman of the house to work in her 'workspace', as he often called the kitchen, yet keep track of and be available for the children and/or guests in the dining room. Much of modern architecture, including the early work of Mies van der Rohe, can be traced back to Wright's innovative work.

II. Decide whether sentences are True (T) or False (F):

1. Frank Lloyd Wright never attended architecture school.
2. Frank Lloyd Wright designed nearly 2000 buildings.

3. He was the first architect to design and supply custom-made, purpose-built furniture and fittings that functioned as integrated parts of the whole design.
4. Frank Lloyd Wright made innovative use of new building materials such as precast concrete blocks, glass bricks.
5. In 1929, Wright wrote an essay on glass in which he compared it to the mirrors of nature.
6. The simple geometric shapes represent some of the most integral ornamentation of Wright's career.

III. Match the columns:

1. decorative	a) walls
2. glass	b) life
3. solid	c) elements
4. geometric	d) industry
5. domestic	e) shapes
6. intricate	f) work
7. innovative	g) windows

IV. Phrasal verbs with *BUILD*

a) Build on sth – to use a success or achievement as a base from which to achieve more success.

Build around sth – to base smth on an idea or principle.

Build sth in/into sth – to include something as part of a plan, system or agreement.

Build sth up – to increase or become larger or to cause someone or something to do this.

b) **Fill in the gaps:**

on	around	in	up
----	--------	----	----

1. When drawing up a contract it is vital to build ____ safety measures.
2. A good relationship is built ____ trust.

3. It took her ten years to build _____ her publishing business.
4. The independence movement sought to unify the country with a national identity built _____ a common language.

NORMAN FOSTER

I. Read and translate the text.

Norman Robert Foster is a British architect whose company maintains an international design practice. He is Britain's most prolific builder of landmark office buildings. Leaving school at 16, he worked in the Manchester City Treasurer's office before joining National Service in the Royal Air Force. After he was discharged, in 1956 Foster attended the University of Manchester's School of Architecture and City Planning (graduating in 1961).

Foster's academic successes at Manchester won him a Henry Fellowship to pursue graduate studies at Yale University, USA. There he met Richard Rogers and they began a life-long friendship. After graduating from Yale, Foster travelled throughout the United States for a year, and returned to England in 1962.

In 1962 he set up an architectural practice as Team 4 with Rogers and their respective girlfriends, the sisters Georgie and Wendy Cheesman. Georgie (later Wolton) was the only one of the team that had passed her RIBA exams allowing them to set up in practice on their own. Team 4 quickly earned a reputation for high-tech industrial design. After Team 4 went their separate ways, in 1967 Foster and Wendy Cheesman founded Foster Associates, which later became Foster and Partners.

An important early breakthrough for Foster's own practice was the Willis Faber & Dumas headquarters in Ipswich, UK. This was a pioneering piece of social architecture completed in 1974. The client was an insurance company, originally a family firm, which wanted to restore a sense of community to the workplace. Foster responded by creating open-plan office floors long before open-plan became the norm. In a town not over-endowed with public facilities, the roof gardens, Olympic-sized swimming pool and gymnasium greatly enhance the quality of life of the company's 1,200 employees. All this is wrapped in a full-height glass façade which

moulds itself to the medieval street plan and contributes real drama, subtly shifting from opaque, reflective black to a glowing backlit transparency as the sun sets.

Foster remains proud of the building to this day, not only because it has won as many awards for energy conservation as it has for architecture, but also because he sees this as the project where all his aspirations came together: the concept of the building in relation 'to history, to a social dimension, to energy usage, and to the appropriate usage of technology'.

Today Foster & Partners are one of the very largest architectural practices in the world, employing roughly 500 people. They maintain offices in Hong Kong and Berlin, along with their headquarters on the South Bank of the Thames next to Battersea Park - the studio itself being a Foster creation. The firm's output is phenomenal and shows no sign of abating.

Foster's earlier designs reflected a sophisticated, machine-influenced high-tech vision. His style has since evolved into a more sublime, sharp-edged modernity.

Today, Foster & Partners works with its engineering collaborators to integrate complex computer systems with the most basic physical laws, such as convection. The approach creates intelligent, efficient structures like the Swiss Re London headquarters at 30 St Mary Axe, nicknamed "The Gherkin", whose complex facade lets in air for passive cooling and then vents it as it warms and rises.

II. Define whether sentences are True (T) or False (F):

1. Norman Robert Foster is a famous British architect.
2. Norman Foster won Henry Fellowship award at Oxford University.
3. In 1962 he founded Team 4.
4. Team 4 developed high-tech industrial design.
5. In 1967 Foster and Richard Rogers founded Foster Associates, which later became Foster and Partners.
6. Today Foster & Partners employs approximately 700 people.
7. Foster & Partners integrates complex computer systems with the most basic physical laws.

III. Find synonyms for the following verbs

1. graduate	a) ascend
2. begin	b) hire
3. found	c) leave
4. create	d) establish
5. enhance	e) start
6. remain	f) make
7. employ	g) improve
8. rise	h) stay

IV. *Stages in building a house.* Put these stages in the right order and then match them with the expressions on the left.

1. First,	a) the drains are dug.
2. Then,	b) the materials are bought.
3. Meanwhile,	c) the house is painted.
4. Subsequently,	d) the walls are built.
5. At this stage,	e) the site is purchased.
6. Next,	f) the site is leveled.
7. Afterwards,	g) the foundations are laid.
8. Then,	h) the house is ready to live in.
9. Later,	i) the roof is put on.
10. Eventually,	j) the doors and windows are put in.
11. Finally,	k) the electricity and water systems are installed.

HIGH-TECH ARCHITECTURE

I. Read and translate the text.

High-tech architecture, which is also known as the Late Modernism or Structural Expressionism, is one of an architectural style which emerged in the 1970s. The various features of the high tech industries were used as a design to build new buildings.

Lots of steel and concrete was being used in this kind of architecture. This kind of architecture appeared to be a bridge between the modern architecture and the post modern architecture. However it is still not known that from where this kind of architecture started and where the post modern architecture ended.

The style got its name from the book *High Tech: The Industrial Style and Source Book for The Home*, written by design journalists Joan Kron and Suzanne Slesin and published in November 1978 by Clarkson N. Potter, New York. The book, illustrated with hundreds of photos, showed how designers, architects, and home owners were appropriating classic industrial objects—library shelving, chemical glass, metal deck plate, restaurant supply, factory and airport runway light fixtures, movers' quilts, industrial carpeting etc.—found in industrial catalogues and putting these to use in residential settings.

The style's premier practitioners include the British architect Norman Foster, whose work has since earned him knighthood, and Spanish architect Santiago Calatrava, known for his organic, skeleton-like designs.

Those buildings which have been designed in this style usually consist of a clear glass facade, with the building's network of support beams exposed behind it. If you will look for the most renowned, the most famous and easily recognized building built in this style then you will definitely come across the I.M. Pei's Bank of China Tower in Hong Kong. The World Trade Center in New York City, although generally considered to be an International Style building, was in principle a Structural Expressionist design due to its load-bearing steel exoskeleton.

Characteristics

Characteristics of high-tech architecture have really not remained unique and have varied somewhat, yet all have emphasized technical elements. They included the prominent display of the building's technical and functional components, and an

orderly arrangement and use of pre-fabricated elements. Glass walls and steel frames were also very popular.

To boast technical features, they were externalized, often along with load-bearing structures. There can be no more illustrious example than Pompidou Centre. The ventilation ducts are all prominently shown on the outside. This was a radical design, as previous ventilation ducts would have been a component hidden on the inside of the building. The means of access to the building is also on the outside, with the large tube allowing visitors to enter the building.

The orderly and logical fashion in which buildings in the high-tech architectural style are designed to keep to their functional essence is demonstrated in Norman Foster's Hong Kong and Shanghai Bank HQ. Besides the technology being the overriding feature of the building, its design is very much functionally orientated. The large interior open space and the easy access to all floors enhance the function of being a bank. Also, the elements of the buildings are very neatly composed to achieve optimal orderliness in order to logically solve the problem of the needs of a bank. This can be seen in the levels' structure and in the escalators.

The high-tech buildings make persistent use of glass curtain walls and steel structure. It is greatly indebted to modern architecture for this, and influenced by Mies van der Rohe's corporate buildings. The SOM Sears Tower demonstrates that with glass walls and skeleton pipe structure of steel, a very tall building can be built. Many high-tech buildings meant their purposes to be dynamic. This could best be explained by Günther Behnisch and Frei Otto's Munich Olympic Stadium. This structure made sport in the open possible and is meant to be used for many purposes. Originally an abandoned airfield, it is now a sport stadium, used for various disciplines.

II. Answer the questions:

1. What is high-tech architecture?
2. Which materials are used in high-tech architecture?
3. How did the style get its name?
4. Who are the premier practitioners of the high-tech style?
5. What is the most famous building built in this style?
6. What are the characteristics of high-tech style?

III. Fill in the gaps:

1. High-tech architecture is also known as the _____ or Structural Expressionism.
2. Lots of steel and _____ was being used in this kind of architecture.
3. This kind of architecture is a bridge between the _____ and the _____ architecture.
4. The style's premier practitioners are _____ and _____.
5. The high-tech buildings make persistent use of _____ walls and steel structure.

IV. Choose the correct answer.

1. We are going to _____ our house by building another room on to it.
a) develop b) extend c) spread d) stretch
2. The _____ charged by the architect for the plans of the new building were unusually high.
a) fees b) hire c) price d) sum
3. The agents didn't _____ letting all the new flats before the block was completed.
a) bargain b) expect c) foresee d) suspect
4. The _____ outside the house said: "PRIVATE".
a) advice b) label c) notice d) threat
5. The _____ of the house were dug in June and the roof was on by December.
a) basements b) ground floors c) scaffolds d) foundations
6. The house is old and it's in bad _____.
a) condition b) damage c) situation d) state
7. She was keen to _____ the house to its original condition.
a) rebuild b) renew c) renovate d) restore
8. We could have provided him with a detached house but he _____ asked for a small flat.
a) decidedly b) solely c) specifically d) strongly

UNIT 5 SKYSCRAPERS

THE HISTORY OF SKYSCRAPERS

I. Read and translate the text.

The desire to build big is not new. Big buildings have been used to show off power and wealth; to honor leaders or religious beliefs; to stretch the limits of what's possible; and even as simple competition among owners, families, architects, and builders. Some of the most dramatic buildings of the past include the pyramids in Egypt, the skinny towers stretching towards the sky in Italian hill towns, and the gothic cathedrals of France. While these types of buildings may look very different from each other, they all have one thing in common. They were built with masonry or stone walls supporting most of the weight (so-called load-bearing walls), including that of the floors, the people, and everything the rooms contained. Because of this, the height of these buildings was limited by how massive and heavy they had to be at the base.

Removing the Obstacles

Two developments in the 19th century paved the way for a whole new type of building: the skyscraper. The first was the development of a safe elevator. Primitive elevators of various designs had been used for centuries, and starting in the mid 19th century, steam-operated elevators were used to move materials in factories, mines, and warehouses. But these elevators were not considered safe for people; if the cable broke, they would plummet to the bottom of the elevator shaft. Then in 1853, an American inventor named Elisha Graves Otis developed a safety device that kept elevators from falling if a cable should break. This new development had an enormous impact on public confidence. And later in the century, the switch to an electric motor made the elevator a practical solution to the problem of getting up and down tall buildings.

The second development took place in Chicago. In 1871, Chicago suffered a devastating fire. In the years that followed, however, instead of recovering slowly, the city experienced explosive growth, and it quickly began to strain against its natural boundaries. By the 1880s, the available land for new buildings in this area could not keep up with demand; the only alternative was to build up. But in order to achieve the desired height, construction techniques had to change. A new method of building was developed that used a grid of steel beams and columns that were strong

enough to support any stresses or forces a building might experience, including both the weight of the floor and the building contents, as well as the force of wind or even, in some areas, earthquakes. And with this new building method, the skyscraper was born and the race for the tallest building began.

Modern Materials

Since the birth of the skyscraper, builders and engineers have continuously looked for ways to improve building methods and materials, in order to make structures stronger, taller, and lighter. Skyscrapers are built to last, so they must be made of materials that are strong; durable; resistant to the sun, wind, rain, frost, and snow; and affordable. Concrete is one of the most common materials, beyond the steel supports, because it is enormously versatile. Its composition can be changed depending on the needs of the building. It can be reinforced to make it stiffer and stronger by setting steel mesh or bars into the concrete. And additives can make it set or harden faster or slower depending on the needs of the design.

Another very important material is glass. Because the steel skeleton now supports the main loads of the building, the outer skin only serves to keep the weather out and let light in, the more light the better. So glass walls became very popular beginning after World War II, because they are weatherproof while providing ample natural light, and also because they are so much lighter-and cheaper-than masonry or concrete.

The Forces of Nature

But as buildings became taller and lighter, particularly the modern glass boxes that are so popular, skyscrapers began having trouble with the wind and they began to sway, some more than two feet in any direction! Engineers came up with new solutions for this problem, first installing diagonally braced steel trusses between central elevator shafts to create a stronger core, and then moving most of the beams and columns to the outside edge of the walls in order to make a stiff tube. A more unusual solution was devised to control sway in the 1970s called a tuned mass damper. This is a giant concrete block or weight, mounted with springs and shock absorbers on a lubricated plate, designed like a pendulum to move in one direction when a computer senses the structure has begun to move in the other, in order to counterbalance the motion.

Building Badly

Of course, with new technological developments, problems can occur. One dramatic and very visible example was the John Hancock Tower in Boston, now

considered the city's most spectacular building. The structure is a tower of mirrored glass. But almost from the beginning, the glass panes failed. The problem started during a winter gale in January 1973 while the tower was still under construction, when huge panels of glass, each weighing 500 pounds, shattered and fell to the street below.

The streets and sidewalks were roped off as engineers tried to figure out what was going wrong. By April at least 65 panels had fallen and been replaced by plywood. Theories and rumors persisted, including that the tower was swaying too much, causing the windows to pop out, or that the tower's foundation was settling so significantly that it broke the windows. The truth was that the material itself failed. The window units had been manufactured using a fairly new process and the design was fatally flawed. Ultimately, all 10,344 windows had to be replaced and the building has been safe ever since.

The Race for the Sky

In the early 20th century, corporations built skyscrapers for the promotional value to increase name recognition. Among the early skyscrapers in Manhattan were the Metropolitan Life Insurance Tower (700 feet, 50 stories), the Woolworth Building (the world's tallest from 1913-1930 at 792 feet, 60 stories), the Bank of Manhattan (927 feet, 71 stories), and the heavily decorated Chrysler Building (briefly the world's tallest in 1930 at 1046 feet, 77 stories). The Chrysler Building soon lost its crown to the Empire State Building, built during the Depression by a real estate developer, which reached a stunning 1,250 feet and 102 stories. The Empire State Building would reign supreme among skyscrapers for 41 years until 1972, when it was surpassed by the World Trade Center (1,368 feet, 110 stories). Two years later, New York City lost the distinction of housing the tallest building when the Sears Tower was constructed in Chicago (1450 feet, 110 stories). And twenty-four years after that, for the first time the tallest skyscraper was no longer in the United States at all, but in Kuala Lumpur, Malaysia, where the Petronas Towers were built in 1998 (1483 feet, 88 stories).

The tallest completed building so far in the 21st century is Taipei 101, built in Taiwan in 2004, which tops out at 1,670 feet and 101 stories. But another country is eager to claim the tallest title. Currently under construction in Dubai, United Arab Emirates, the Burj Dubai is expected to be completed in 2009. As of April 2008, Burj Dubai was 2,064 feet tall with 160 completed floors. The exact height is top secret but is estimated to be at least 2,313 feet and 167 floors. If it reaches this height,

which is close to a half mile tall, it will be tallest manmade structure of any kind in history.

II. Define whether sentence are True (T) or False (F):

1. Big buildings have been used to show off power and wealth.
2. All tall buildings were built with masonry or stone walls supporting most of the weight.
3. Two developments in the 20th century paved the way for a whole new type of building: the skyscraper.
4. Concrete and glass are common materials used in skyscrapers.
5. The John Hancock Tower in Boston was the tallest building in 1973.
6. In the early 20th century, corporations built skyscrapers for the promotional value to increase their productivity.
7. Taipei 101 is the tallest building in the world.

III. Fill in the gaps:

1. Steam-operated elevators were used to _____materials in factories, mines, and warehouses in the mid 19th century.
2. Elisha Graves Otis developed a safety device that kept elevators from _____.
3. Since the birth of the skyscraper, builders and engineers have continuously looked for ways to improve _____methods and materials.
4. Concrete is one of the most common materials, beyond the _____supports.
5. Glass walls became very popular beginning after World War II, because they are _____.
6. The tallest _____ building so far in the 21st century is Taipei 101.
7. Skyscrapers must be made of materials that are strong; durable; resistant to the sun, wind, rain, frost, and snow; and _____.

IV. Find synonyms for the following words:

1. desire	a) huge
2. durable	b) movement
3. enormous	c) wish
4. strong	d) hard
5. ample	e) lasting
6. motion	f) sufficient

I. Read and translate the text.

The building that brought central London into the modern era of avant garde skyscrapers didn't come without controversy. Officially known as 30 St. Mary Axe, this building has been lovingly described as a lighthouse of 21st century architecture, and mocked as the "gherkin." When the Swiss Re Building company commissioned the building, it intended it to be a landmark. Mission accomplished. Though its height is far less than other London skyscrapers, its prominent location, peeking up from behind the Tower of London, have landed it supporting roles in dozens of feature films, and millions of tourist snapshots.



The building is stunning in appearance - a festival of dark and light glass with spandrels serving as streamers circling it like an Olympic dancer. Rectangular glass panes are forsaken for triangles and diamonds, and with each floor offset from the one below by five degrees, the building appears to work itself into a spiral like a pile of clay on a potter's wheel. The result is stunning and smooth. Even though the building appears round, the glass facade is actually all made of flat panels. The only curved piece of glass is the lens that tops the structure.

Inside, the building's utilities are gathered around a circular central core, which results in a doughnut of uninterrupted floor space for tenants. There are three elevator cores with double-height elevators servicing four distinct zones. Transfers are made through the main lobby as well as three sky lobbies.

Outside, the building has some interesting design features. Among them, the fact that the building is slightly sunken in its plaza and an indented ring surrounds the building. The size of the indentation corresponds to the building's drip line, so it catches rain running off the building and washes it inward. Access to the building is over very small bridges over this trough to the main doors. In addition to serving as a runoff basin, the indentation holds recessed flood lights which illuminate the building from below.

Though the building is spectacular, it is far from harmonious with its neighbors. Even though the shockingly modern Lloyds of London Headquarters is just a few blocks away, 30 Saint Mary Axe is nestled in a neighborhood of quietly decaying townhouses and churches. This is an area that has stood silently for eight hundred years as London grew up around it. The insertion of a sparkling curved skyscraper in its midst is startling to unsuspecting pedestrians ambling along the narrow streets. The building that used to be on this site was the historic Victoria Baltic Exchange, built in 1903. That building was heavily damaged in a terrorist bombing executed by the Irish Republican Army in 1992. Preservation groups pushed to save the building, but the damage was too extensive and the cost too great to save it.

II. Define whether sentences are True (T) or False (F):

1. 30 St. Mary Axe is London's landmark.
2. 30 St. Mary Axe has been lovingly described as a lighthouse of modern architecture.
3. The building is ugly in appearance.
4. There are three elevator cores with double-height elevators servicing three distinct zones.
5. Outside the building is slightly sunken in its plaza.
6. The building is harmonious with its neighbors.
7. Victoria Baltic Exchange was damaged in 1991.

III. Match words with their definitions:

1. lighthouse	a) a group of buildings including shops designed as a single development with a town.
2. landmark	b) a building for Christian religious activities.
3. plaza	c) a structure that is built over a river, road or railway to allow people and vehicles to cross from one side to the other.
4. lobby	d) a tall building by the sea with a flashing light at the top to warn ships of dangerous rocks.
5. church	e) thick, heavy earth that is soft when wet, and hard when dry or baked, used for making bricks and containers.
6. bridge	f) the (large) room into which the main entrance door opens in a hotel or other large buildings.
7. clay	g) a building or place that is easily recognized, especially one which you can use to judge where you are.

IV. The halves of the following sentences are mixed up. Put them in the right place.

1. 30 St Mary Axe is a building	a) of Sweden in 2001-2004.
2. The original plan for the site	b) by Lord Foster.
3. The building was designed	c) in London's main financial district, the City of London.
4. The building is on the former site	d) of the Baltic Exchange.
5. 30 St Mary Axe was constructed by Skanska	e) was to reconstruct Baltic Exchange.

BURJ DUBAI

I. Read and translate the text.

Burj Dubai (Arabic: برج دبي "Dubai Tower") is a supertall skyscraper under construction in Dubai, United Arab Emirates, and is the tallest man-made structure ever built, despite being incomplete. Construction began on 21 September 2004, and the tower is expected to be completed and ready for occupancy by September 2009.

The building is part of the 2 km² (0.8 sq mi) development called "Downtown Burj Dubai" at the "First Interchange" along Sheikh Zayed Road at Financial Centre Road (previously known as Doha Street). The tower's architect is Adrian Smith, who worked with Skidmore, Owings and Merrill (SOM) until 2006. The architecture and engineering firm SOM is in charge of the project. The primary builders are Samsung Engineering & Construction and Besix along with Arabtec.



The total budget for the Burj Dubai project is about US\$4.1 billion, and for the entire new "Downtown Dubai", US\$20 billion. Mohamed Ali Alabbar, the CEO of Emaar Properties, speaking at the Council on Tall Buildings and Urban Habitat 8th World Congress, said that the price of office space at Burj Dubai had reached \$4,000 per sq ft (over \$43,000 per m²).

The tower is designed by Skidmore, Owings and Merrill, which also designed the Sears Tower in Chicago and 1 World Trade Center in New York City, among numerous other famous high-rises. The building resembles the bundled tube form of the Sears Tower, but is not a tube structure. Its design is reminiscent of Frank Lloyd Wright's vision for The Illinois, a mile high skyscraper designed for Chicago, Illinois.

According to Marshall Strabala, an SOM architect who worked on the building's design team, Burj Dubai was designed based on the 73-floor "Tower Palace Three", an all-residential building in Seoul, South Korea. In its early planning, Burj Dubai was intended to be entirely residential.

The design of Burj Dubai is derived from patterning systems embodied in Islamic architecture, with the triple-lobed footprint of the building based on an abstracted version of the flower *Hymenocallis*. The tower is composed of three elements arranged around a central core. As the tower rises from the flat desert base, setbacks occur at each element in an upward spiralling pattern, decreasing the cross section of the tower as it reaches toward the sky. At the top, the central core emerges and is sculpted to form a finishing spire. A Y-shaped floor plan maximizes views of the Persian Gulf. Viewed from above or from the base, the form also evokes the onion domes of Islamic architecture. During the design process, engineers rotated the building 120 degrees from its original layout to reduce stress from prevailing winds.

The exterior cladding of Burj Dubai will consist of 142,000 m² (1,528,000 sq ft) of reflective glazing, and aluminium and textured stainless steel spandrel panels with vertical tubular fins. The cladding system is designed to withstand Dubai's extreme summer temperatures. Additionally, at its projected height the exterior temperature at the top of the building will be 6 °C (11 °F) cooler than at its base.

The interior will be decorated by Giorgio Armani. An Armani Hotel, the first of four by Armani, will occupy the lower 37 floors. Floors 45 through 108 will have 700 private apartments on 64 floors (which, according to the developer, sold out within eight hours of being on the market). An outdoor zero-entry swimming pool will be located on the 78th floor of the tower. Corporate offices and suites will fill most of the remaining floors, except for a 123rd floor lobby and 124th floor (about 440 m (1,444 ft)) indoor/outdoor observation deck. The spire, itself over 200 m (700 ft) tall, will hold communications equipment.

A total of 56 elevators will be installed, the fastest rising and descending at up to 10 m/s (33 ft/s). Engineers had considered installing the world's first triple-deck elevators, but the final design calls for double-deck elevators.

The primary structural system of Burj Dubai is reinforced concrete. Over 45,000 m³ (58,900 cu yd) of concrete, weighing more than 110,000 tonnes (120,000 ST; 110,000 LT) were used to construct the concrete and steel foundation, which features 192 piles buried more than 50 m (164 ft) deep. When completed, Burj Dubai's construction will have used 330,000 m³ (431,600 cu yd) of concrete and 39,000 tonnes (43,000 ST; 38,000 LT) of steel rebar.

As construction of the tower progresses, it becomes increasingly difficult to vertically pump the thousands of cubic metres of concrete that are required.

Special mixes of concrete are made to withstand the extreme pressures of the massive weight of the tower; as is typical with reinforced concrete construction, each batch of concrete is tested and checked to see whether it can withstand certain pressures. The concrete pumps, pipelines and booms are provided by Putzmeister, of Aichtal, Germany.

The consistency of the concrete used in the project is essential. It was difficult to create a concrete that could withstand both the thousands of tonnes bearing down on it and Persian Gulf temperatures that can reach 50 °C (122 °F). To combat this problem, the concrete is not poured during the day. Instead, ice is added to the mixture and it is poured at night when it is cooler and the humidity is higher. A cooler concrete mixture cures evenly throughout and therefore is less likely to set too quickly and crack. Any significant cracks could put the whole project in jeopardy.

The unique design and engineering challenges of building Burj Dubai have been featured in a number of TV documentaries, including the Big, Bigger, Biggest series on the National Geographic and Five channels, and the Mega Builders series on the Discovery Channel.

Burj Dubai has been designed to be the centerpiece of a large-scale, mixed-use development that will include 30,000 homes, nine hotels such as the Burj Dubai Lake Hotel & Serviced Apartments, 3 hectares (7.4 acres) of parkland, at least 19 residential towers, the Dubai Mall, and the 12-hectare (30-acre) man-made Burj Dubai Lake.

The building will return the title of Earth's tallest free-standing structure to the Middle East—a title not held by the region since 1311 when Lincoln Cathedral in England surpassed the height of the Great Pyramid of Giza, which had held the title for almost four millennia.

II. Answer the questions:

1. Why is Burj Dubai famous?
2. When did the construction of Burj Dubai begin?
3. Who is the tower's architect?
4. How many elements is the tower composed of?
5. What is the exterior of Burj Dubai?

6. Who will decorate the interior?
7. How many elevators will be installed in Burj Dubai
8. What purpose Burj Dubai has been designed for?

III. Define whether sentences are True (T) or False (F):

1. Burj Dubai is the tallest structure in the world.
2. The tower is expected to be completed and ready for occupancy by December 2009.
3. The architecture and engineering firm SOM is in charge of the project.
4. The total budget for the Burj Dubai project is about US\$4.3 billion.
5. The building is a tube structure.
6. The design of Burj Dubai is derived from patterning systems embodied in Islamic architecture.
7. Burj Dubai will include 30,000 homes, nine hotels and a shopping mall.
8. Burj Dubai is the tallest free-standing structure in the Middle East.

IV. Match words with their definitions:

1. tower	a) the outside part of something or someone
2. spire	b) a tall narrow structure often square or circular, which either forms part of a building or stands alone.
3. exterior	c) the inside part of something
4. interior	d) a set of trading conditions or the business environment
5. elevator	e) a tall pointed structure on top of a building especially on top of a church tower.
6. market	f) a box-like device which moves up and down, carrying people or goods from one floor of a building to another
7. pipeline	g) a very long large tube, often underground, through which liquid or gas can flow for long distances

V. Some facts about skyscrapers.

Skyscrapers are frequently featured in films for their impressive appearance and potent symbolism. They convey an impression of power – an old movie and TV cliché starts with the outside view of a skyscraper with a voice-over conversation, continuing inside the luxurious office of a tycoon or crime boss.

Skyscrapers' tight security and isolation from the rest of the city makes them ideal for dramatic crisis and trap situations including hostage-taking, heists and fire. Skyscrapers and other large landmarks also feature prominently in disaster films, where they are destroyed as a show of the power of nature or invaders.

This is a list of actual skyscrapers that have a noticeable role as themselves in films, sorted by chronological building order.

Empire State Building (New York City 1931) - famously climbed by the giant ape King Kong in the eponymous movie (1933). Destroyed by an alien ship in Independence Day (1996). The Empire State Building's observation deck features prominently in Sleepless in Seattle.

World Trade Center (New York City 1973) - climbed by King Kong in the 1976 remake of King Kong. Exploded and collapsed after being hit by a fragment of the Meteor (1979). Leaped onto from a failing helicopter in Read or Die (May 2001). Used as a makeshift runway by Snake Plissken in Escape from New York (1981). Severely damaged by meteor shower in Armageddon (1998) and severely damaged by an ocean wave (from comet impact) in Deep Impact. In the film Home Alone 2 (1992) Kevin Mcallister stops there while sightseeing.

Chrysler Building (New York City 1930) - accidentally destroyed by U.S. military forces in Godzilla (1998); destroyed by a meteorite in Armageddon (1998); flown through by the Silver Surfer in Fantastic Four: Rise of the Silver Surfer (2007).

Capitol Records Building (Los Angeles 1956) - A distinctive Hollywood landmark, frequently destroyed in blockbuster films including Independence Day, Earthquake, and The Day After Tomorrow.

Tour Montparnasse (Paris 1973) - taken over by terrorists in the French Die Hard parody *La Tour Montparnasse Infernale* (2001). The title is a spoof on *The Towering Inferno* (see *Glass Tower* in next section).

Terminal Tower Cleveland-was featured in *Major League*, *The Fortune Cookie* 1966, *Proximity*, and *The Deer Hunter* 1978, also a *Christmas Story* 1983. The Terminal was featured in Antwone Fisher story.

BP Tower Cleveland-was featured and shot for the 2004 movie *Oh in Ohio* with Parker Posey, Posey's character had her office based in the BP Tower. In the scene you could also see the Key Tower and Cleveland Browns Stadium in the background.

U.S. Bank Tower (Los Angeles 1990) - the first building destroyed by the alien ships in the film *Independence Day* (1996); and also in the *The Day After Tomorrow* by a Category F-5 Tornado (2004).

Petronas Twin Towers (Kuala Lumpur 1998) - setting of a spectacular heist in the film *Entrapment* (1999).

Jin Mao Tower (Shanghai 1998) - the building and the Grand Hyatt inside are featured (both unnamed) in the futuristic *Code 46* (2003).

Two International Finance Centre (Hong Kong 2003) - featured in *Tomb Raider: The Cradle of Life* (2003).

Taipei 101 (Taipei 2004) - while not yet featured in a major international film as of 2004, in local productions it is fast becoming an Eiffel Tower-like cliché that the view from every Taipei apartment includes Taipei 101.

Rialto Tower (Melbourne 1986) - featured in *Ghost Rider* (2007). The Ghost Rider is seen riding vertically up the tower to elude the authorities. Many more of Melbourne's towers and buildings are featured throughout the movie.

Sydney Tower (Sydney 2004) - destroyed by the monster Zilla in the Japanese film *Godzilla: Final Wars*. Destroyed by meteors in the Hallmark film "*Supernova*", which was released in 2005.

UNIT 6. UKRAINIAN ARCHITECTURE

UKRAINIAN ARCHITECTURE

I. Read and translate the text.

Ukrainian architecture is a term that describes the motives and styles that are found in structures built in modern Ukraine, and by Ukrainians worldwide. The cultural and architectural history of entire Russia, actually, started in Ukraine, when Kiev, the present capital of the country, became the center of the Russian statehood then called the Kievan Rus. Since the 9th century, Ukraine was both developing its own style in construction and absorbing great architectural influences of Byzantine, Greece, and France.

Although most buildings of the early era were constructed out of logs, some churches and palaces incorporated more solid materials, such as stone. The Kievan Rus style in architecture and interior design was influenced by the Byzantine culture and featured complicated mosaic and frescoes decorations and large magnificent constructions. One of the most ancient among grand Ukrainian churches of that period is the Saint Sophia Cathedral in Kiev which was built under the rule of Yaroslav the Wise in the 11th century. Defensive designs of military fortifications, towering castles, and fortified monasteries became a staple of the Ukrainian landscape in the period of the 12th -15th centuries, when the country underwent the Mongol invasion.

In 16th century, the Renaissance brought along a new style in architecture, called Baroque, which became popular in big Ukrainian cities, such as L'viv, Chernihiv, and Kiev. The highlights of the Ukraine's Baroque can still be seen in survived church and monastery constructions of that period, such as the Church of Saint Michael in Kiev that still magnifies the eye with its impressive golden domes. Classicism came into the country in the 18th century, featuring decorative plastering in city palaces and public buildings. The architecture of France largely influenced the

construction style in the Eastern parts of Ukraine, which still can be observed in magnificent buildings of old districts of Odessa.

Many stunning examples of Ukrainian architecture have survived numerous political storms, wars, and revolutions sweeping the region for more than a thousand years of its rich history. A variety of foreign styles have successfully merged into authentic Ukrainian architecture and produced an exquisite, blended Ukrainian style incorporating the best of the European cultural traditions.

Saint Sophia Cathedral in Kiev dates back to 1037 when Prince Yaroslav the Wise laid the foundation and it is definitely a testament to the skill of Ukrainian builders. It has 13 domes – or cupolas as they call them overseas – that dominate the Kiev skyline and the bell tower is the most notable one as it is topped with gold. There are some of the most beautiful 11th century mosaics and frescoes inside the cathedral and considering all of the turmoil, conflicts and strife the country has seen since 1037, it's amazing that they are intact.

Unlike most cathedrals found in Europe that are still holding masses as well as being open to public viewing, Saint Sophia's holds a museum instead that details the cathedral's spiritual and intellectual influence on the region. It tells how the cathedral was an integral part of the spread of the Orthodox faith through Russia from the 17th to 19th century. This beautiful building was declared a UNESCO World Heritage site in 1990 and it should be included on any trip to Ukraine in order to enjoy some of the best architecture and art work in the country.

II. Decide whether sentences are True (T) or False (F):

1. Ukrainian architecture is a term that describes the motives and styles that are found in structures built in modern Ukraine.
2. The Kievan Rus was the center of the Russian statehood.
3. The main building material was timber.
4. The Kievan Rus style in architecture and interior design was influenced by the Russian culture.
5. The Saint Sophia Cathedral in Kiev was built in the 11th century.

6. Baroque became popular in big Ukrainian cities in the 16th century.
7. A variety of foreign styles have successfully merged into authentic Ukrainian architecture.
8. Pochayiv Lavra was declared a UNESCO World Heritage site.

III. Give English equivalents for the following word combinations:

- a) деревина
- b) твердий матеріал
- c) монгольське вторгнення
- d) вражаючий золотий купол
- e) заповіт
- f) духовний та інтелектуальний вплив
- g) лінія горизонту

IV. Fill in the gaps:

Landscape, global, environment, style, renewal, picturesque

The language of modern architecture becomes more 1)_____ and pluralistic in its artistic direction. At the same time, a significant role plays new creative quests of progressive leanings, principles and approaches to solve the composition of the architectural form and 2)_____.

In the works of the Kiev school of Ukrainian architects, postmodernism and high-tech tendencies can be increasingly found. This is a reflection of the globalization's reach across the world of architecture.

The task for modern Ukrainian architecture is diverse application of modern aesthetics, the search for an architect's own artistic style and inclusion of the existing historico-cultural 3)_____.

Good examples of modern Ukrainian architecture include the reconstruction and 4)_____ of the Maidan Nezalezhnosti in central Kiev, despite the limit set by narrow space within the plaza, the engineers were able to blend together the uneven 5)_____ and also use underground space to set a new shopping centre.

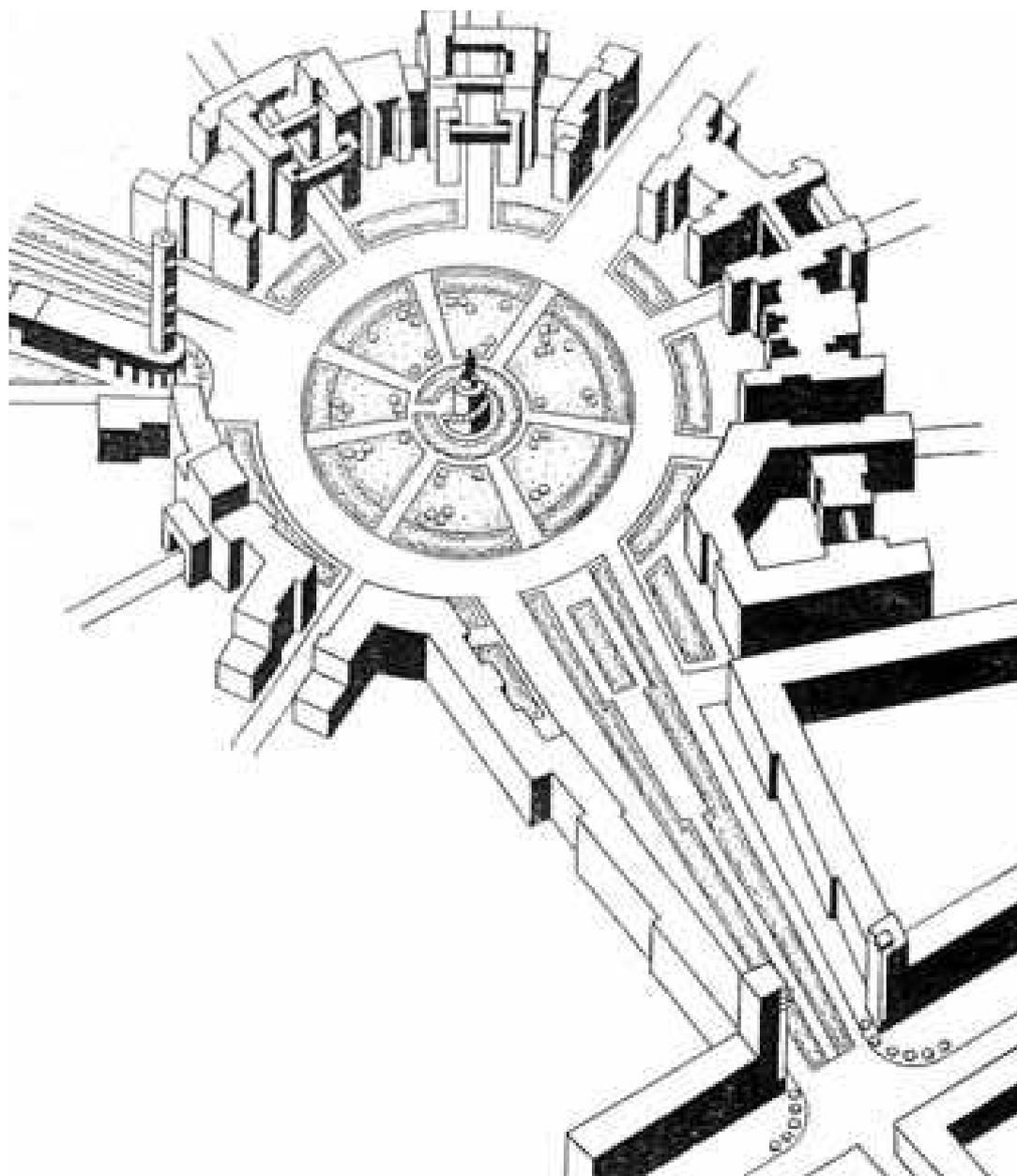
The major project that will take up most of the 21st century, is the construction of the Kiev City-Centre on the Rybalskyi Peninsula, which, when finished, will include a dense skyscraper park amid the 6)_____ landscape of the Dnieper.

KHARKIV ARCHITECTURE

I. Read and translate the text.

During the early years of the Soviet rule, the Ukrainization policies, meant that many Ukrainian architects were encouraged to use national motives unique to Ukraine. At the same time, architecture became standardized; all cities received general development plans to which they would be built. The national motives were however not taken up as the new architectural fashion for the new government became Constructivism.

The Dzerzhinsky Square in Kharkiv



Original project by Victor Trotsenko

In Soviet Ukraine, for the first 15 years, the capital was the eastern city of Kharkiv. Immediately a major project was developed to "destroy" its bourgeois-capitalist face and create a new Socialist one. A talented young architect Viktor Trotsenko, proposed a large central square with large modern buildings to become the central hub of the capital. Thus the Dzerzhinsky Square (now Freedom Square) was born, which would become the most brilliant example of constructivist architecture in the USSR and abroad. It is currently the third largest square in the world to date.

The features of the old Kharkov and those of today's city merge into a unique picture created by the specific architecture of its buildings, squares and streets. The most treasured pieces of architecture are in the central part of the city. In the monastery yard there stands the three-cupola Pokrovsky cathedral, the oldest stone building of the city. Not far from it there stands the renowned Uspensky cathedral built in the Russian baroque style with the iconostasis designed by Bartholomew Rastrelli. No less beautiful and attractive is the Blagoveschensky cathedral with its alternating strips of red brick and white plaster that remind one of old-Byzantine temples. The famous monument to the Great Kobzar, Taras Shevchenko, belongs to the Soviet period. One of the most widely known Kharkov edifices built in the constructionist style is the Gosprom (the House of State Industry). Built by architects Sergei Serafimov, S.Kravets and M.Felger, and only in three years it became the highest structure in Europe. Its unique feature lies in the symmetry which can only be felt at one point, in the centre of the square. As a tribute to the engineering design by Kharkiv Technical University, none of the attempts to blow the building during the Second World War were successful, and it still remains the symbol of Kharkiv today.

The architecture of historical Kharkov integrally merges with its modern administrative buildings, cultural, educational and shopping centers which all form a unique ensemble of the city.

II. Define whether sentences are True (T) or False (F):

1. Kharkiv was the capital of Ukraine.
2. The Dzerzhinsky Square was designed by Viktor Trotsenko.

3. Freedom Square is currently the second largest square in the world.
4. The most treasured pieces of architecture are in the eastern part of the city.
5. One of the most widely known Kharkov edifices built in the constructionist style is the Gosprom.
6. Gosprom is the highest structure in Europe.
7. The attempts to blow the building during the Second World War failed.

III. Find synonyms for the following words:

1. fashion	a) centre
2. project	b) manner
3. hub	c) scheme
4. monument	d) endeavor
5. attempt	e) memorial

IV. Match words with their definitions:

1. square	a) a building used for the worship of a god or gods in some religions.
2. cathedral	b) the quality of having parts that match each other, especially in a way that is attractive
3. temple	c) an area of approximately square-shaped land in a city or a town, often including the buildings that surround it.
4. edifice	d) a very large, usually stone, building for Christian worship, which is the largest and most important church of a diocese.
5. symmetry	e) a large building, especially a splendid one.

ADDITIONAL TEXTS FOR READING

Text #1

Groninger Museum in Groningen, Holland



The Central Pavilion

From some angles the Groninger Museum in Groningen, Holland, looks like a great ship that somehow made its way into the city canal. It's surrounded by water, connected to the land by a pedestrian bridge. Designed by architects Philippe Starck, Alessandro Mendini and Coop Himmelb(l)au, the museum consists of three pavilions, one designed by each architect. The museum has a funky, colorful, futuristic look that's derived from the Italian 'Memphis' style of architecture.

When you approach the Museum Island, the tall golden tower at the centre of the building is the most striking object. This is the repository of the Museum, and also the entrance. Mendini regards this part as the heart of the Museum, the treasury in which the Museum's possessions are kept. This explains the crucial position it was assigned in the design. The golden colour refers, of course, to the precious contents. When the sun shines on the tower, it dazzles the viewer, demanding attention from passers-by.

The green section on the south side is equipped with large windows: this is the café/restaurant from where visitors can enjoy a fine panorama of passing boats out across the water. The café contains furniture by various designers who are also represented in the Museum's collection.

The educational areas are located under the café, such as the auditorium, the children's studio, the Werkman Archives, and the underwater café. The Museum shop and the café/restaurant are situated on the same level as the entrance.

The spiral staircase forms the actual entrance to the various collections and is also the central point of orientation. The visitor has to go downstairs, not upstairs, as in traditional museums (to 'exalted' art). The spiral staircase opens onto the corridors leading to the exhibition pavilion.

TEXT # 2
WEISMAN ART MUSEUM



The Frederick R. Weisman Art Museum located on the University of Minnesota Twin Cities campus in Minneapolis, Minnesota has been a teaching museum for the university since 1934. The museum's current building, designed by renowned architect Frank Gehry, was completed in 1993.

It is one of the major landmarks on campus, situated on a bluff overlooking the Mississippi River at the east end of the Washington Avenue Bridge. The building presents two faces, depending on which side it is viewed from. From the campus side, it presents a brick facade that blends with the existing brick and sandstone buildings. On the opposite side, the museum is a playground of curving and angular brushed steel sheets. This side is an abstraction of a waterfall and a fish.

The most stunning views of the building are from the pedestrian and highway decks of the adjacent Washington Avenue Bridge. Some locals critical of the radical architectural style frequently point out that the building's design could unexpectedly reflect the light of the sun into the eyes of motorists on the bridge. Studies commissioned by MNDOT have found that the museum is not hazardous to motorists.

Often called a "modern art museum," the 20,000+ image collection has large collections of Marsden Hartley, Alfred Maurer, Charles Biederman, Native American Mimbres culture pottery, and Korean furniture.

A new addition, also designed by Gehry, was expected to open in 2009.[2] However, as designs and construction drawings have not been finalized as of April 2008, it is more likely that the addition will not open until late 2010.

TEXT # 3
FAMOUS SKYSCRAPERS

Architectural design has advanced to a phenomenal stage where every modern city would like to boast having one of the tallest buildings. While criteria defining the tallest buildings or skyscrapers differ widely, listed below are the ten most popular architectural marvels of our time.

Empire State Building

A world famous New York City landmark and sky scaper, it rises above the island of Manhattan, about a quarter of a mile into the sky. The observatory is located on the 86th floor, 1050 feet above the ground and offers the most breathtaking and panoramic view of Manhattan and beyond from within a glass enclosed pavilion. Besides the observatory there are several tourist attractions, including, restaurants, shops and banks. It also has a New York SKYRIDE an independently owned and operated simulated helicopter ride and virtual-reality movie theatre. William Lamb, an architect at Shreve, Lamb and Harmon was chosen to design the Empire State Building in 1930

Petronas Towers

Petronas Twin Towers in Kuala Lumpur lay claim to being the tallest twin towers of the 20th century, standing at a height of 1483 feet. They were designed by architect Cesar Pelli and completed in 1998. The 88-floor towers are constructed largely of reinforced concrete, with a steel and glass facade designed to resemble motifs found in Islamic art, a reflection of Malaysia's Muslim religion. The towers feature a sky-bridge between the towers on the 41st and 42nd floors which is 170m high and 58m long.

Sears Tower

Architect Bruce Graham designed the Sears Tower of Chicago in 1974. At 1450 feet, and 110 stories, it is the tallest building in the United States of America. The construction system consists of steel fram with bronze tinted glass curtain wall. The Sears Tower Skydeck observation deck and tourist attraction is on the 103rd floor, 1353 feet above the ground.

Bank of China Tower

Located in Honk Kong, in addition to being one of the famous skyscrapers in the world, it is one of the most outstanding achievements of modern architecture. The construction was started in 1985 and completed in five years by the architects I. M. Pei & Partners and Sherman Kung & Associates. The building standing at 1205 feet, is a grouping of four triangular glass and aluminium towers of different heights, all emerging from a single granite podium. The changes rising from a square base to a single spire results in a magnificent façade of angles and profiles that reflect the light and seem almost crystalline in composition. On the 42nd floor is a sky-deck providing a panoramic view of the northwest Hong Kong.

Chrysler Building

Rising at 1046 feet, it was considered to be an engineering marvel and the tallest building in 1931. However, it still remains the tallest brick building in the

world. The tower is a beautifully tapered stainless steel crown supporting the famous spire at its peak. A quintessence of skyscraper design, the Chrysler Building is a perfect example of Art Deco and has a lobby clad in different marble, onyx and amber.

Taipei 101

At a height of 1671 feet, this high-rise building has surpassed all to become the tallest skyscraper today. Taipei 101 holds the world record in three of the Council on Tall Buildings and Urban Habitat's height categories: tallest to the structural top, tallest to the roof, and highest occupied floor. The 89th floor has an indoor observation area while the 91st floor has an outdoor observation deck, known as the highest in the world. The pagoda shaped design of this building is inspired by traditional Chinese architecture. The sectioned tower is also symbolic of the bamboo plant characterizing strength, resilience and elegance. The tower's design specifications are based on the number 8, considered lucky in the Chinese culture.

Jin Mao Building

This building in Shanghai symbolizes the progress and advancement made by the Chinese. It boasts of being the first tallest sky scrape in the country and the third tallest in the world. A great blend of East-West architecture it denotes aptly the emergence of Shanghai as a modern global city. It follows the versatility model by offering retail at its base, offices above and the Grand Hyatt's World's highest Hotel occupying the upper 38 floors. The magnificently designed building combines the elements of traditional Chinese architecture and a vastly Gothic influence.

Burj Al Arab

The Burj Al Arab rises to a level of 1053 feet, and is known as one of the world's tallest structure with a membrane façade, 24-meter wide helipad. This is the tallest operating hotel building in the world and the design is influenced by the profile of an Arabian sailing ship. The Al Muntaha restaurant is located 200 meters above the Persian Gulf offering a panoramic view of Dubai while the atrium is situated at a height of 180 meters.

CN Tower

At a height of 1815 feet, the CN Tower in Toronto is the tallest building and freestanding structure in the world. It is considered to be the signature icon of the city and hosts almost two million visitors a year. The view from the exterior glass floored observation deck located 342 meters above ground is breathtaking as it is exciting. It

also has the Space Deck at 447 meters, the world's tallest observation deck with a 160 km view and the revolving 360 Degree Restaurant.

Hancock Place

A reflective obelisk sky scrape at Boston is an architectural marvel. It is regarded as 'icily magnificent' wherein the surface changes as the day changes, each side reflecting the color of the sky it faces. Moreover, this dramatic effect is highlighted by the parallelogram shape of the prism, which provides uniquely differing reflections on adjoining surfaces.

The architectural buildings mentioned above are famous creations and literally considered architectural works of art today.

TEXT # 4

DESIRABLE JOBS IN THE ARCHITECTURE FIELD

The job that is becoming more valued and valuable in today's market is the position of landscape architect. Everyone loves to visit an enjoyable and attractive area such as a park or playground. College campuses are famous for their use of landscaping in an effort to provide a warm welcoming atmosphere to their students.

Architects design these areas so that they are functional, beautiful and fully at ease with the natural environment around them. The landscape architect will plan the exact location of each roadway, walkway and how the flowers and trees and buildings are arranged within the campus unit as a whole.

A landscape architect may work for any number of groups or organizations from developers of real estate to municipal areas such as a small town to a larger city. Working side by side with the architect, the surveyor and engineer together decide the best arrangement for roads, buildings and pathways in everything from a campus to a housing community to an entire city mall or complex.

The landscape architect is required today to affiliate and collaborate with many other persons such as conservationist, foresters, environmental sciences and natural resource companies to make decisions necessary to carry out the project to its completion.

Once the major decisions such as buildings are out of the way, the addition of such things as fountains and other decorative items comes into play as well. When

planning a site or building, an architect needs to consider the nature and purpose of the site he/she will plan, and the funding available to him/her to complete the project.

With that in mind, the educational requirements for each type of architect will be stringent and varied. Mathematics will play an important role as well as arts and artistry. Other aspects of learning a solid amount of common sense is required of an architect in that he/she must also analyze and provide for certain natural aspects of their project such as climate, moisture, soil drainage and natural vegetation that exists there.

Typically companies today pay architects vast sums of money for the design of buildings and complexes. Those which work for a single firm and make their home there over a long period of time may expect reasonably a six figure salary from about the third year on particularly if they display a high level of competency at their job.

The market for such services in Canada and the United States is very good and the reasonably good architect can expect that his services will be greatly in demand over the course of his career. Freelance architects are far more common today than those which sign on with a firm, given the higher rate of flexibility in their jobs and the greater satisfaction at being able to choose their own projects.

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