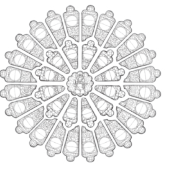




Forms of Architecture



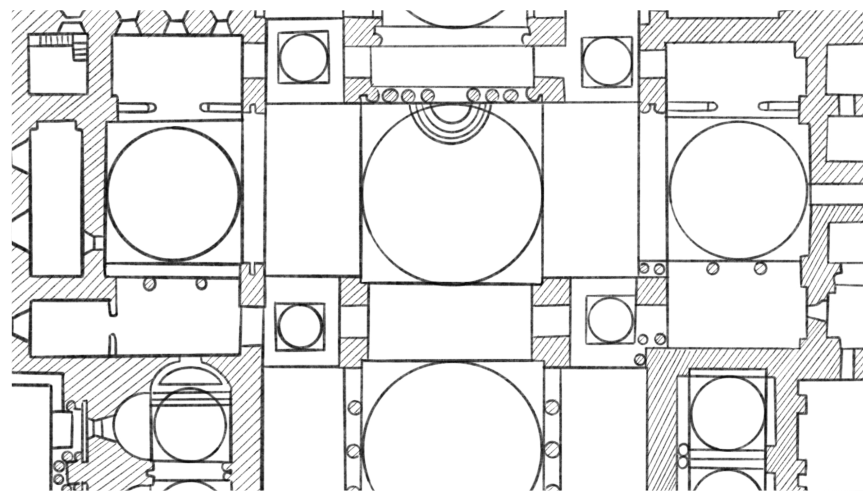
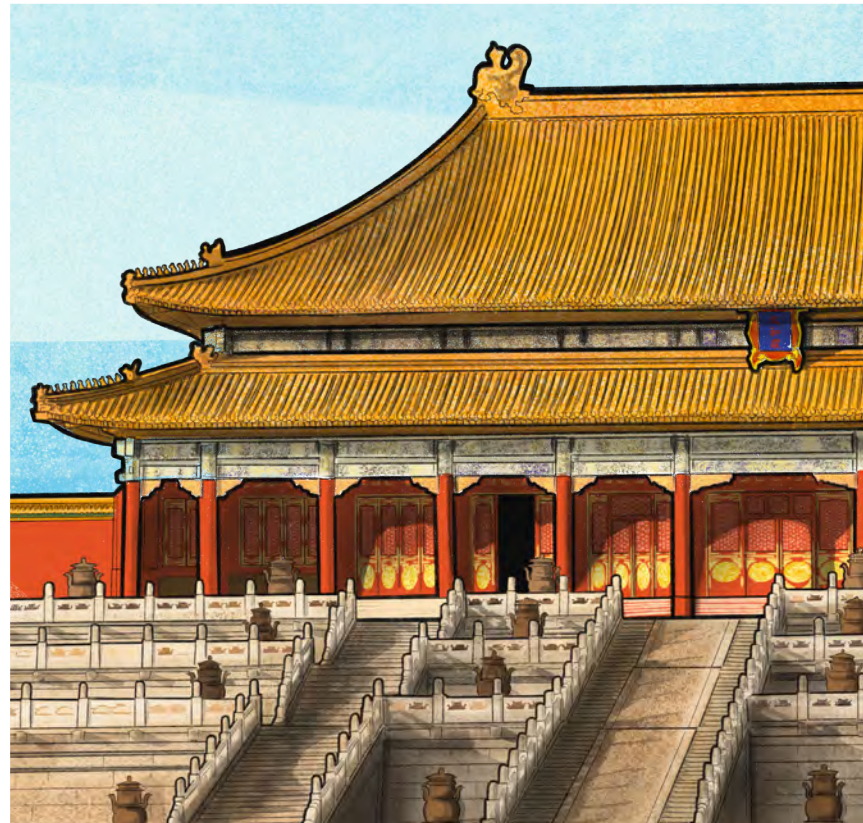
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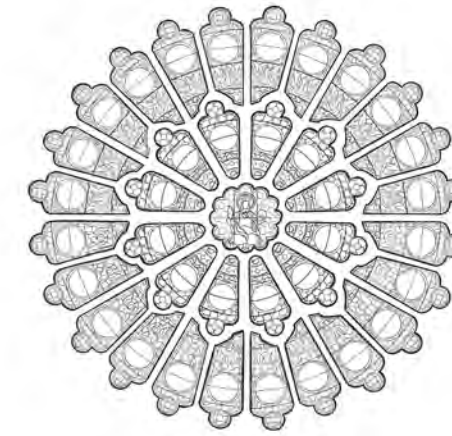
Tom Velčovský

Marie Kraus

Forms of Architecture



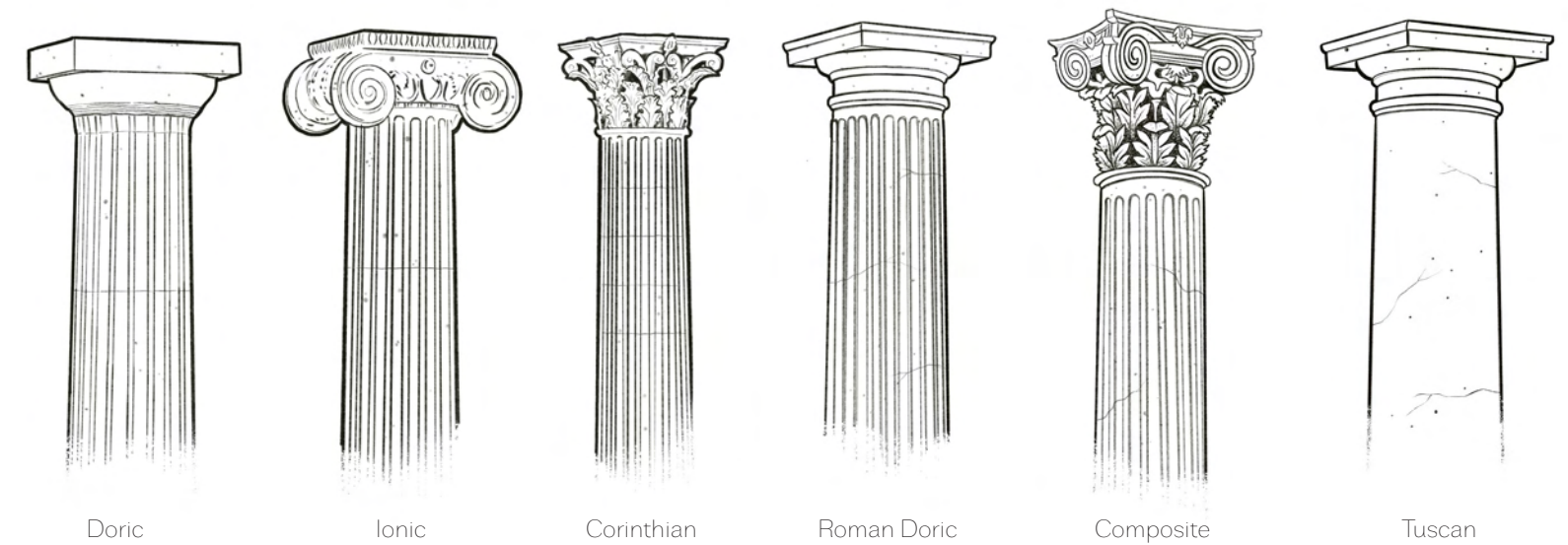
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Forms of Architecture

Introduction

↓ Columns are an important element of support in architecture. The columns used in ancient Greece and Rome are usually categorized according to the decoration of their capitals, meaning the heads of the columns.



The term architectural style is an expression that primarily began to be used in the 16th century by European academics who decided to describe the buildings in their world, with the aim of identifying their similarities and revealing the influences and intentions of their architects. However, this examination of the intentions of the architects seems in some way counter to the artistic nature of architecture and somewhat deprives us of the emotional experience that it undoubtedly offers.

Have a look at the buildings around you and think about what you could say about them. You could probably say they are large or small, they have elements of a particular style or that they are built from a certain material. Alternatively, buildings may make a different impression on you, one that is more difficult to describe. Thus, two approaches can be distinguished, objective and subjective. Objectively, you can identify the dimensions of a building, its age, the materials used and where it was built. With this information, you can also determine the architectural style of the building, although this is often not easy to do with precision, because architectural styles and approaches often mix, build on each other, inspire each other or, conversely, completely contradict each other. There are certain guidelines that can help you navigate these styles. The second approach, the subjective one, is about what you think about the building, the emotions it arouses in you and how it affects you. You can also identify a building's purpose, that is, the function for which it was built. For example, think of a school. You can describe it, but you can also say how it makes you feel.

There are all kinds of buildings around you, of various ages and functions, and there are various people who visit the building. Sometimes these buildings disappear, and new ones take their place. The buildings in this book, however, have survived for centuries. They have survived disasters, wars and major changes. But why were these specific buildings chosen for this book?

Architecture is often viewed from a Western perspective. European academics studied the ideals of ancient Greece and Rome, which laid the foundations for classical architecture. These influences are apparent in all the styles that followed.

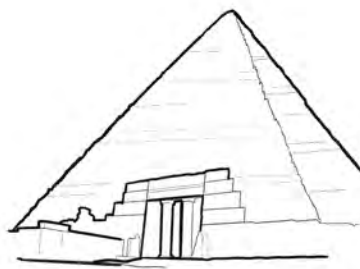
Each chapter in this book presents a specific building that represents a particular architectural style, and, at the same time, illustrates the world development with the aid of other buildings in the same style.

These buildings were chosen to present six classic architectural styles and their influence on the architecture of the world. Seven other styles that deviate from the traditional concept of architecture were also selected, the characteristics of which were determined more by their location and cultural influences.

In this way, with the aid of illustrations, this book briefly introduces the fundamentals of the architecture of the world. It highlights the similarities and differences between buildings, their details and their diversity.

It is impossible to know what effect these buildings will have on you, but perhaps you will be inspired to see them for yourself. All the buildings in this book still exist and appear on these pages as they are today.

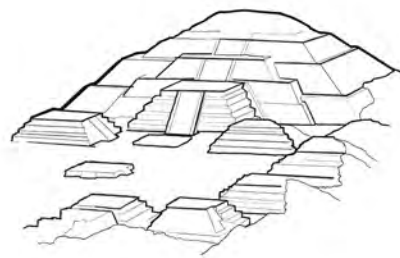
Content



6

Great Pyramid of Giza

A monumental building from the time of ancient Egypt. Along with other buildings from that era, it offers us a glimpse of one of the largest and most influential empires of antiquity.



10

Pyramid of the Moon

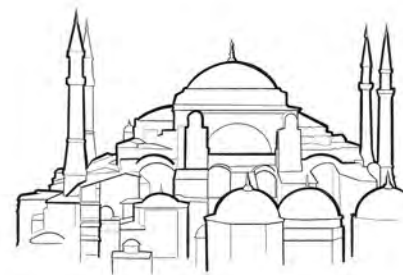
The second largest pyramid in Central and South America offers a unique comparison of cultures separated by many centuries and thousands of kilometres. The chapter features other buildings of this type from all over the continent and describes the culture of the local people who lived at that time.



16

Pantheon

The architecture of ancient Greece and Rome, that is, classical architecture, is literally the foundation of Western architecture and its influence is present in the chapters that follow.



20

Hagia Sofia

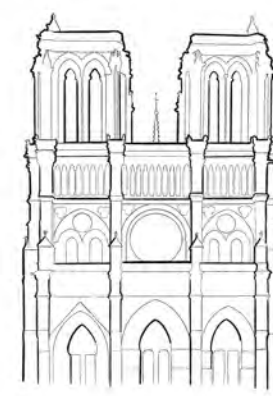
This unique monumental house of worship with a varied history offers a unique mix of Christian and Islamic architecture. It also represents the architectural style of the Byzantine Empire.



26

Cathedral of Saint Lazarus of Autun

The Romanesque cathedral in the French town of Autun houses the relics of Saint Lazarus of Bethany. Romanesque buildings are less common due to their age, as they have either disappeared or have been rebuilt in a newer style.



32

Notre-Dame de Paris

This is one of the most famous buildings in France and the whole world and is an example of the construction techniques used in Gothic architecture.



38

Saint Peter's Basilica

This Renaissance-Baroque building on the territory of the Vatican is considered the most important building of Christianity and the Renaissance, a style that goes back to the ideals of ancient Greece and Rome.



44

Palace of Versailles

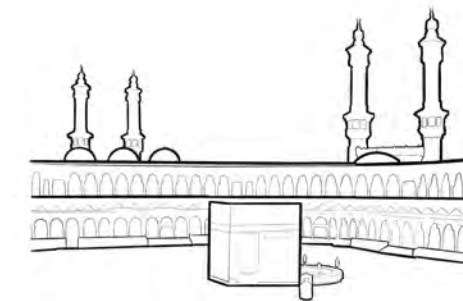
This sumptuous château and its extensive gardens exemplify the basic element of the Baroque, which is opulence and immeasurable grandeur. The chapter also deals with the late phase of this style called Rococo. Here, you will find more secular buildings than sacred ones.



50

Saint Basil's Cathedral

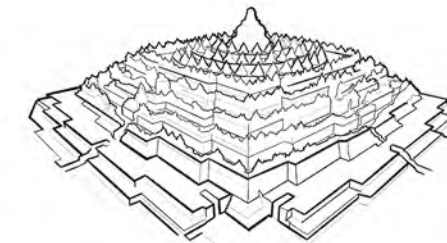
This completely unique building in Russia defies all styles, much like the architecture of Russia itself.



52

Masjid al-Haram

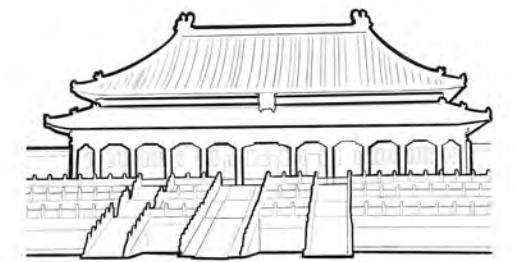
The largest mosque in the world introduces the architecture of Islam, which, unlike the preceding styles in this book, avoids the depiction of saints and emphasizes the elaborate ornamental decoration typical of the architecture of the East.



58

Borobudur

The temple architecture of South Asia offers us a look at predominantly buildings dedicated to Buddhism and Hinduism. Nevertheless, in this chapter you will also find other temples dedicated to other Eastern teachings with completely unique architecture.



66

Forbidden City

This vast palace complex in Beijing, China is a breath-taking example of the architecture of ancient China. The chapter includes buildings in Japan and Korea which bear similar features, and presents pagoda architecture.



72

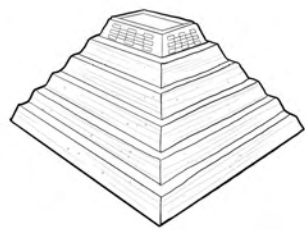
White House

The final building is one that not only represents the United States of America but also the style called Neoclassicism, which directly refers to the ideals of the classical architecture of Greece and Rome and also represents the development of the Western world in the character of the buildings.

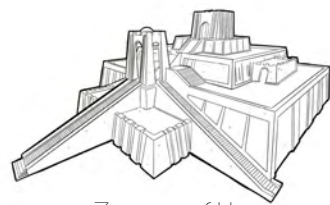
At the same time, the final chapter opens the door to modern architecture, which, in a much shorter period of time, introduces hundreds of building styles that directly refer to the styles mentioned in this book or that form completely new styles, for which several separate books would be required. So let's have a look at the buildings that laid the foundations for today's world.

78

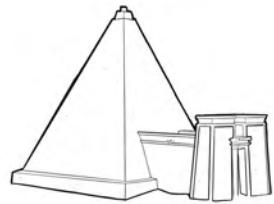
Glossary



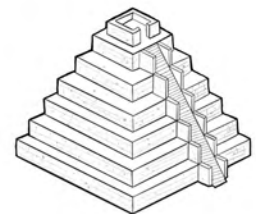
Pyramid of Djoser
Egypt, 2610 BC



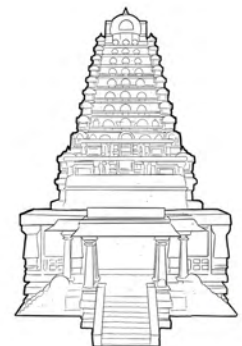
Ziggurat of Ur
Iraq, 2000 BC



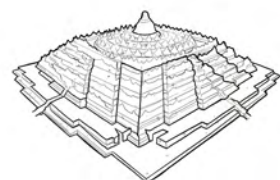
Nubian Pyramid
Egypt, 800 BC



Koh Ker
Cambodia, 921 AD



Brihadisvara Temple
India 1010 AD



Borobudur
Java, 9th century AD

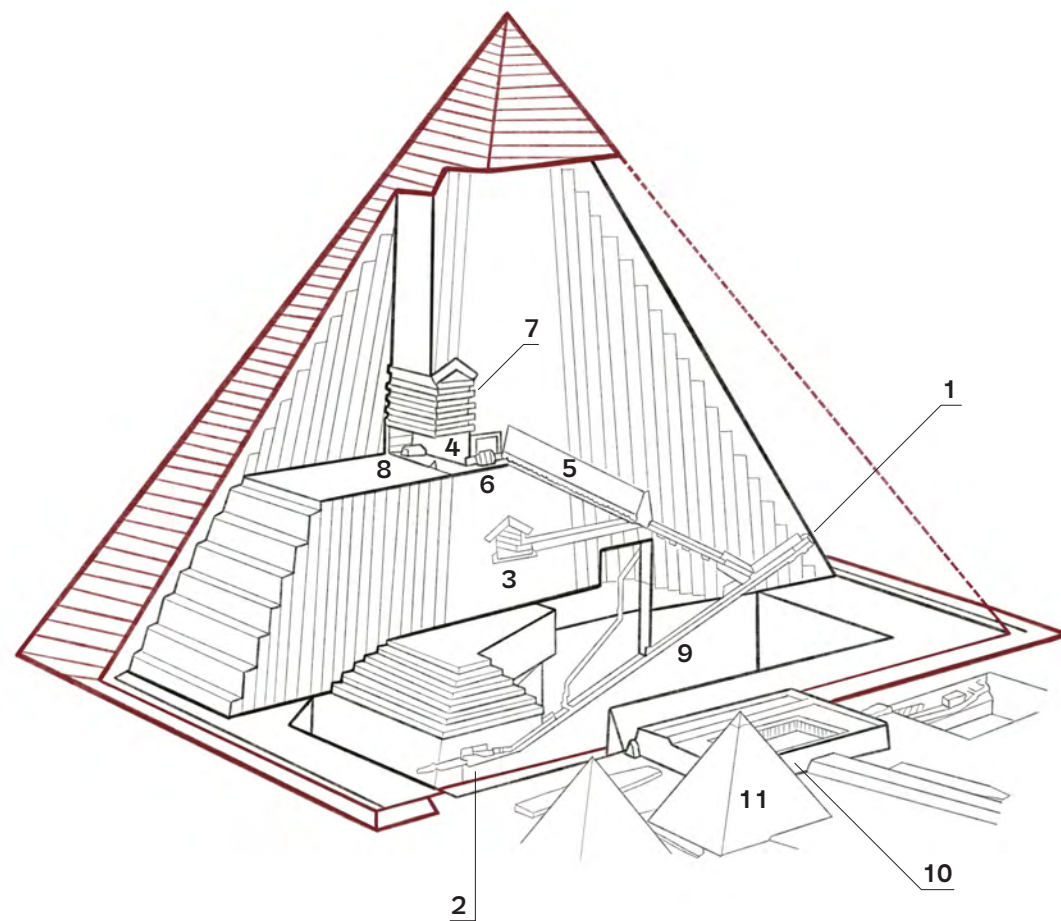


Kukulcán
Yucatán, 8th–12th century AD

The Great Pyramid of Giza

The pyramid is the tomb of the Egyptian pharaoh named Khufu, who was also known as Cheops. It is the largest known stone structure of antiquity and the only one of the Seven Wonders of the World still standing. It is the most expressive symbol of ancient Egyptian architecture. The Egyptian pyramids served as tombs and have a strong spiritual meaning. They were built from large blocks of granite by thousands of workers using simple tools. Pyramid-shaped structures can be seen all over the world, but none is the subject of such interest as the Great Pyramid of Giza.

↓ Original entrance (1), Subterranean chamber (2), Queen's chamber (3), Antechamber (Hall) (4), Grand gallery on the ascending passageway (5), Grand step (stair) (6), Relief chambers above the King's Chamber (7), King's Chamber (8), Descending passageway (9), Mortuary temple (10), Pyramids of Queens (11)



← Stepped pyramid-shaped structures appear across various cultures and continents. This shape is the most effective for buildings that were meant to touch the sky, which supported their predominantly spiritual significance.

WHERE: Giza Egypt
WHEN: 2570 BC



↑ The columns with the entrance do not lead to the pyramid, but to the Mortuary Temple on the east side of the pyramid.

Philae

WHERE: Nubia, Egypt
WHEN: 7th century BC
A temple dedicated to the goddess Isis, which is richly decorated with hieroglyphs.



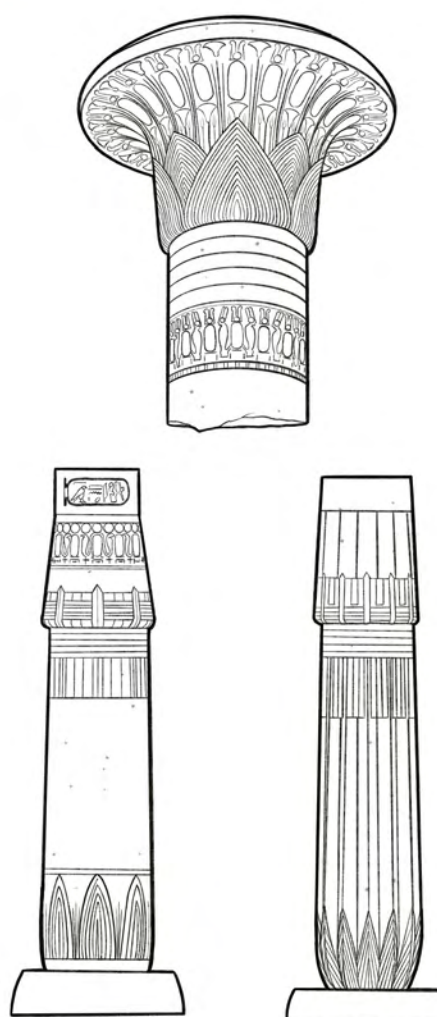
Abu Simbel

WHERE: Nubia, Egypt
WHEN: 13th century BC
A rock-cut temple dedicated to Ramesses II. It is decorated with 20-metre statues of the pharaoh, known as the colossuses.



Architecture of ancient Egypt

Ancient Egypt is still a fascinating era of human existence, which is steeped in mystery. The architectural remains from this time are dedicated to the pharaohs, who were the deities and rulers of the country at that time. This is the reason why they are frequent motifs in the decoration of ancient Egyptian buildings.



↑ Richly decorated columns bore column heads with natural motifs, such as papyrus, lotus and palm leaves

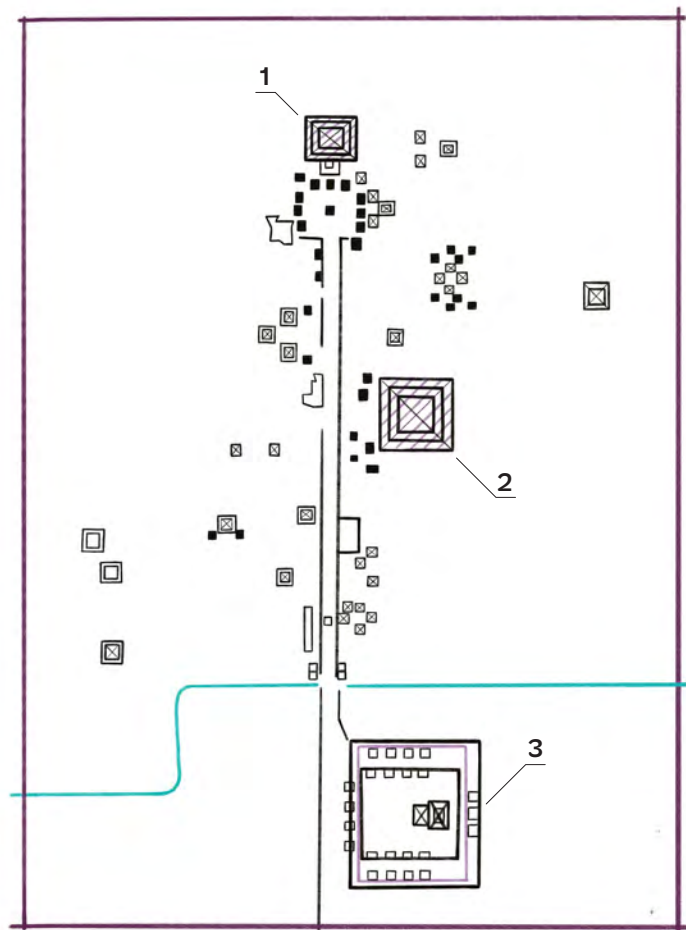
Karnak

WHERE: Luxor, Egypt
WHEN: 1950 BC
The largest temple complex in Egypt with its famous colonnaded Great Hypostyle Hall, dedicated to the god Amun.

Pyramid of the Moon

WHERE: Teotihuacán, Mexico
WHEN: cca 1st century

The oldest pyramid of the indigenous people of Mesoamerica is the Pyramid of the Moon in the Teotihuacán complex. Although it is not the largest pyramid in this area, which is the Pyramid of the Sun, it dominates the whole of the shared complex. These city complexes are a typical example of life in this region at that time. The construction of these cities and the arrangement of the individual buildings were carefully planned out beforehand on the basis of astronomical observations. The buildings had a spiritual dimension and the pyramids served as a place of sacrifice to the gods. The Pyramid of the Moon has a sacrificial plaza, which is connected to a long avenue, bordered on each side by other buildings. These kinds of structures can be observed in different variants in other cities of the region. The inhabitants of that time worshipped many deities. In the case of the Pyramid of the Moon, it was the Great Goddess of Teotihuacán, who was the goddess of water, fertility, earth and life.



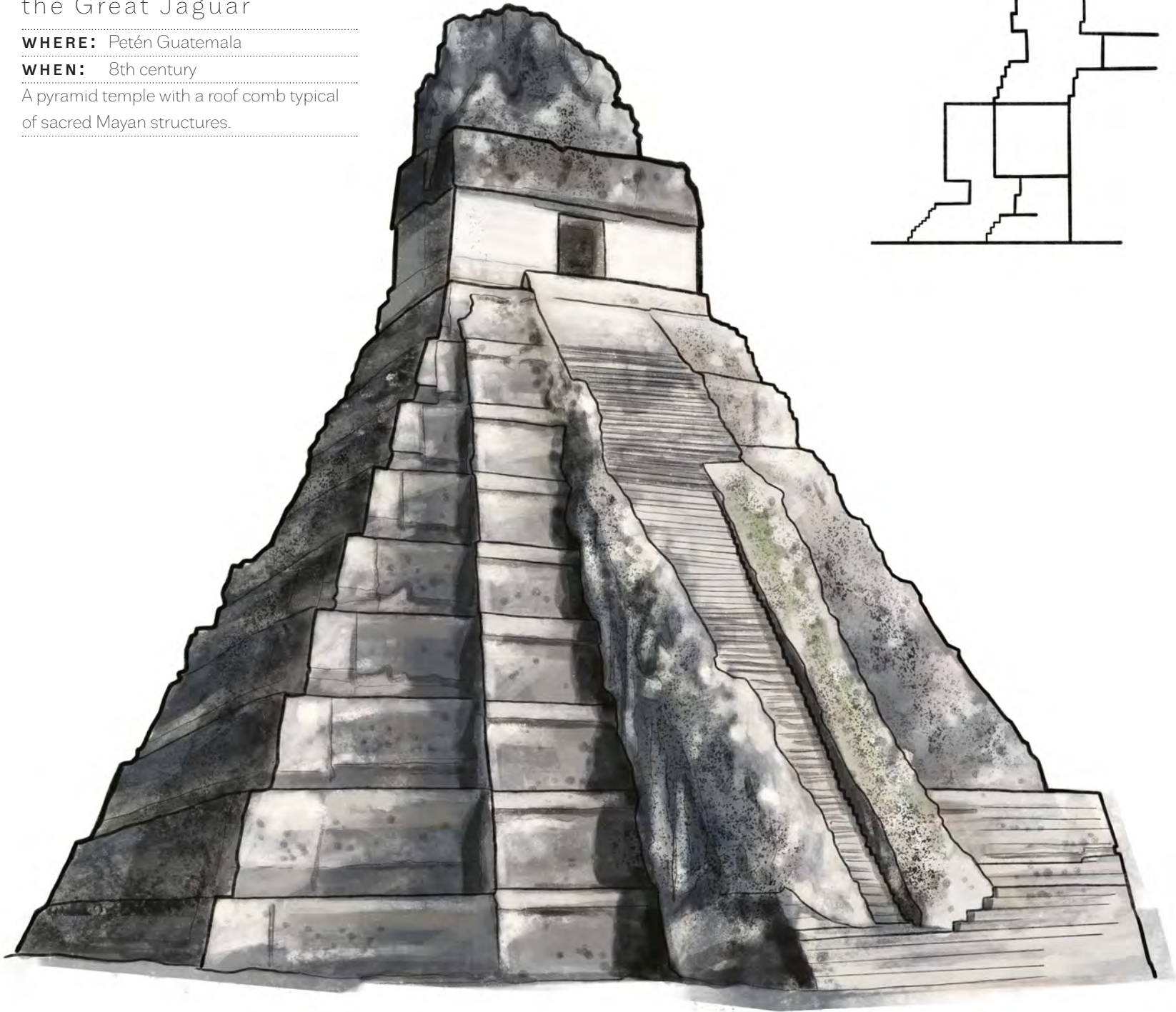
← Ground plan of the city
Pyramid of the Moon (1)
Pyramid of the Sun (2),
Temple of Quetzalcoatl
(the Feathered Serpent) (3)

→ Talud-tablero. This is an element or structure where ledges perpendicular to the ground, i.e., tableros, protrude from a talud, i.e., a wall that is not perpendicular to the ground (always at an angle of less than 90 degrees and usually less than 60 degrees).



Temple of the Great Jaguar

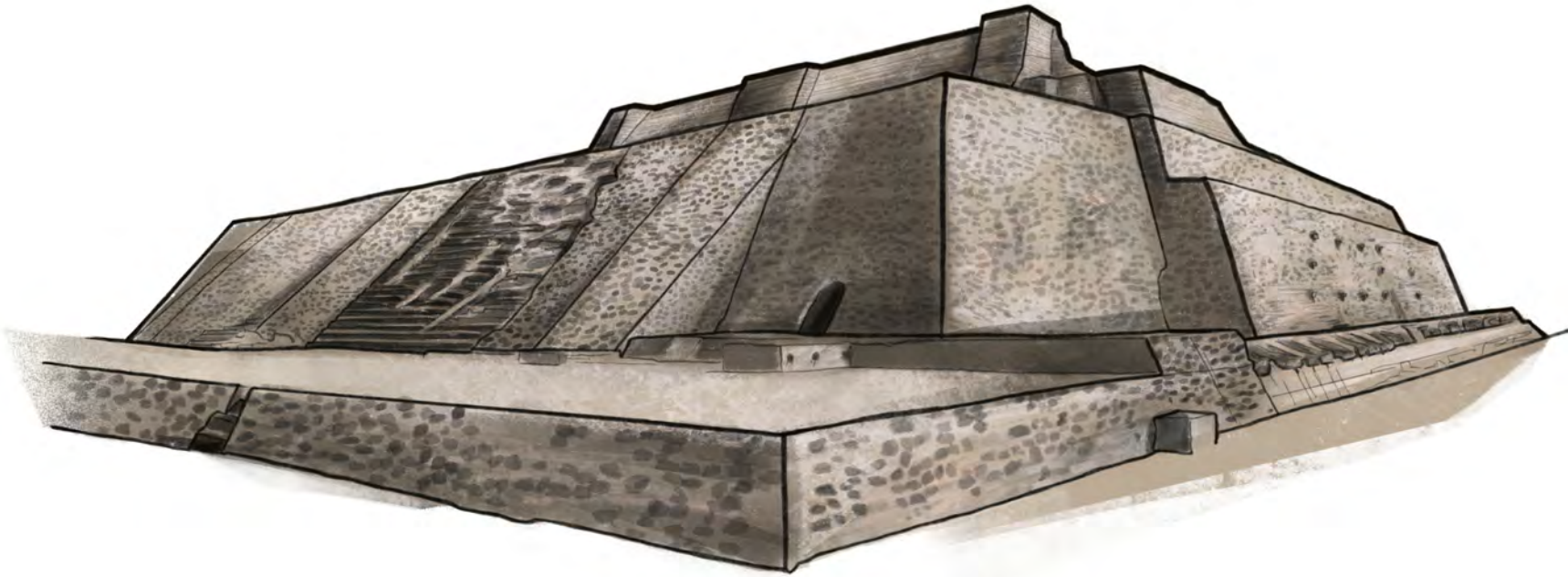
WHERE: Petén Guatemala
WHEN: 8th century
A pyramid temple with a roof comb typical of sacred Mayan structures.



The significance of pyramids
No one has yet clarified with certainty the purpose and significance of the Mesoamerican pyramids, but these structures do have one thing in common. Unlike the Egyptian pyramids, they have a flat top. The top consists of a platform that could have been the site of important ritual ceremonies.

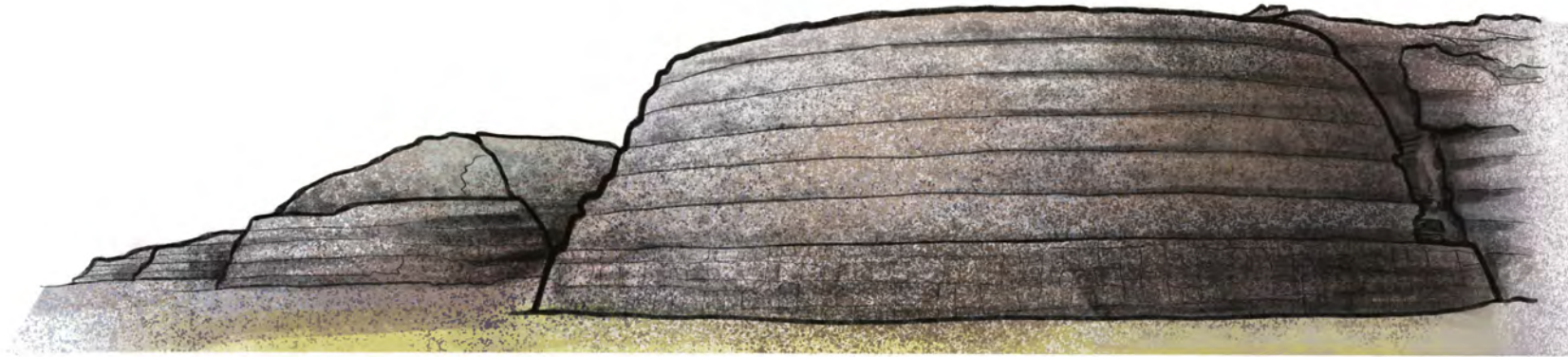
Pyramid of Tenayuca

WHERE: Mexico
WHEN: 13th century
The earliest example of an Aztec double pyramid.



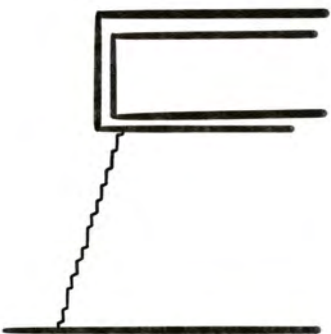
Tzintzuntzan yácatas

WHERE: Michoacán, Mexico
WHEN: 15th century
Tzintzuntzan, with its unusual round pyramids called yácatas, was the capital city of the Purépecha Empire.



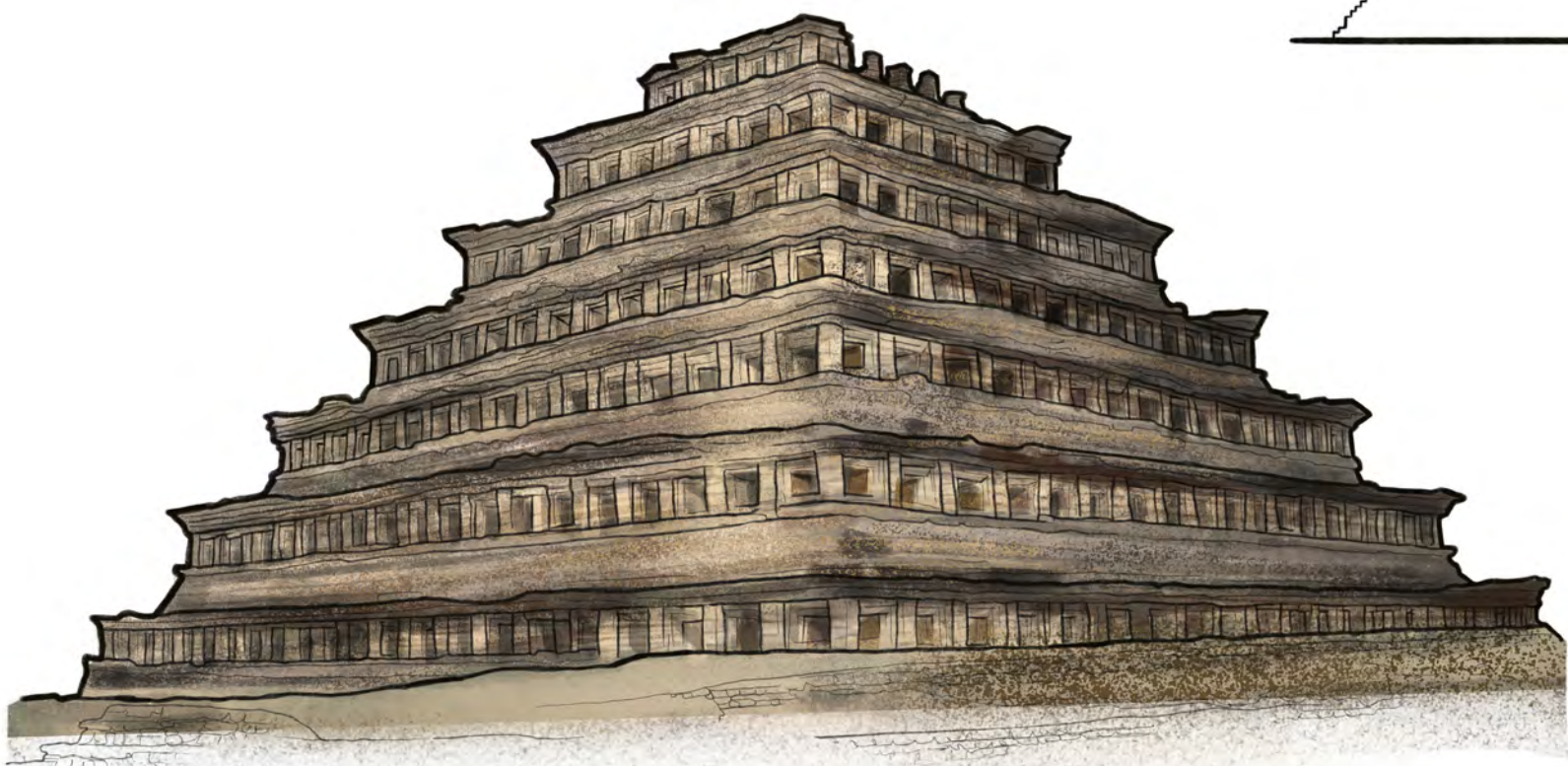
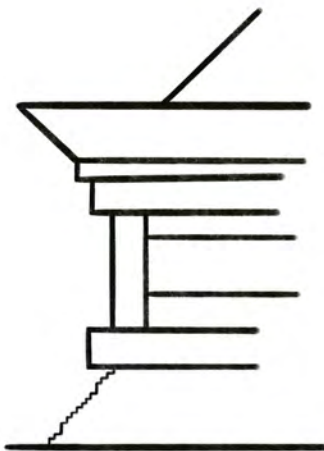
Kukulcán

WHERE: Chichen Itza, Mexico
WHEN: 8th – 12th century
El Castillo or the Pyramid of Kukulcan is a Mayan pyramid and the main building of the ancient city of Chichen Itza.



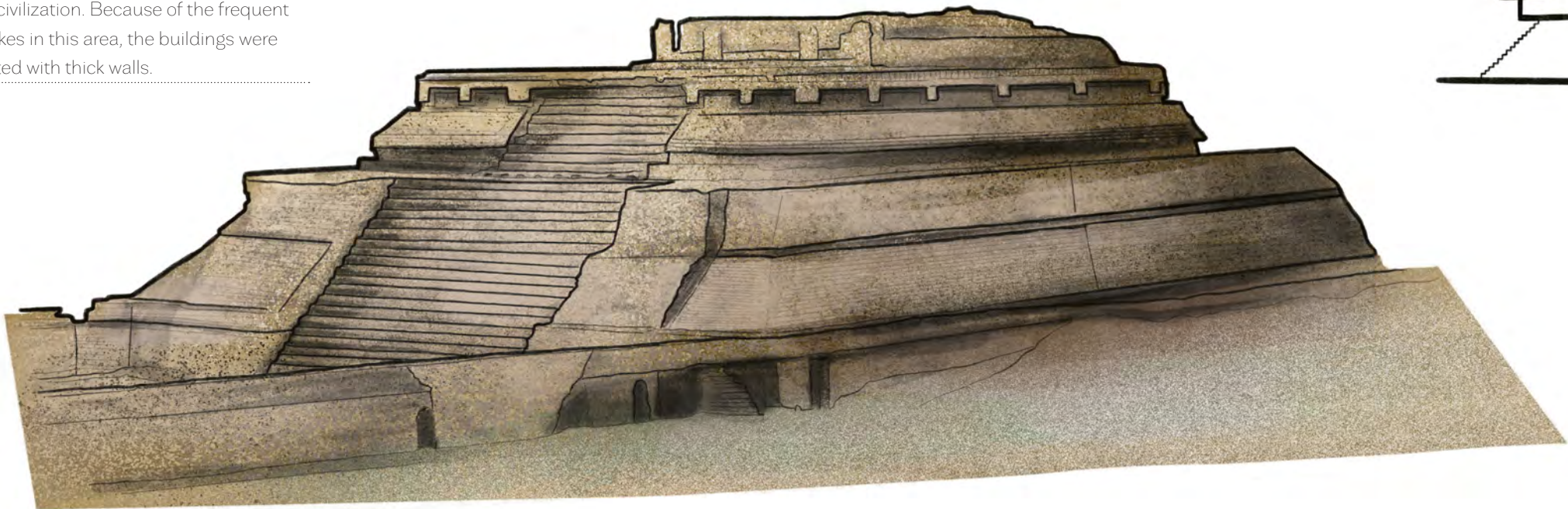
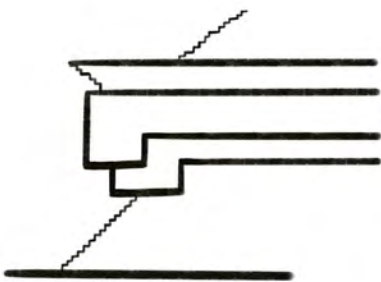
Pyramid of Niches

WHERE: Veracruz, Mexico
WHEN: 8th century
Like Kukulcán, the pyramid of the Veracruz complex El Tajín has 365 steps, which corresponds to the number of days in a year and indicates the important role of astronomy in Mesoamerica at that time.



Pyramids in Monte Albán

WHERE: Oaxaca, Mexico
WHEN: 5th century
These pyramids are remarkable for many reasons, one of which is the asymmetry of the buildings in this complex of the Zapotec civilization. Because of the frequent earthquakes in this area, the buildings were constructed with thick walls.



Where pyramids are found

Pyramid-like stepped buildings can be found in many places in the world. Apart from America and Egypt, they are to be found in China, the Canary Islands, Indonesia, India, Pakistan and the Maldives.

Pantheon

Rome's Pantheon is a prime example of classical architecture. This landmark of the Italian capital was the model for many other buildings that were built in other parts of the world. This 'temple of all gods', which is the building's name in translation, has been the model for many state buildings. If you travel north to Vienna, the heart of the former Austro-Hungarian Empire, you will be in no doubt as to the pervasive influence of classical architecture. This showcase of antique architecture is in perfect condition despite its considerable age, which is due to the fact that it has been in continuous use. The Pantheon is now clearly a place of prayer devoted to one Christian god, but many gods were worshipped there in ancient times.

↓ In the interior of the Pantheon there are columns with Corinthian capitals.

The facade of the building is decorated with smooth columns without fluting, but with the same capitals.



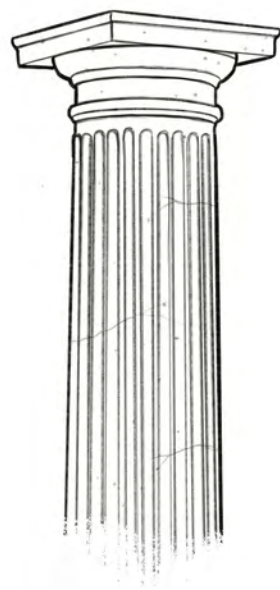
← Symmetry refers to the use of identically repeated shapes. The original temple was completely destroyed apart from the facade.

↓ The dome of the building is the largest unreinforced concrete dome in the world.

WHERE: Rome, Italy
WHEN: 2nd century



↑ The inscription on the lower edge of the pediment is the signature of Marcus Agrippa, the consul and Roman general who commissioned the construction of original temple (and paid for it). Of the original building, only the front part remains, that is, the facade, the columns and the entrance. The rest of the Pantheon building is from the 2nd century AD.



Parthenon

WHERE: Athens, Greece

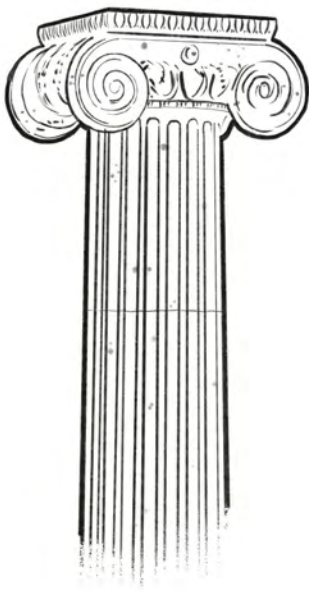
WHEN: 5th century BC

An ancient temple with Doric columns dedicated to the goddess Athena.



The architecture of ancient Greece and Rome

The architecture of ancient Greece and Rome combines three basic principles: strength, utility and beauty. These were the words of the architect Marcus Vitruvius, which became a kind of mantra for all architects. This is why the influence of classical architecture is also visible in many other architectural styles across the world and is widely referenced by contemporary architects. The most recognizable features of classical architecture are mathematically precise proportions and symmetry, facades with columns and triangular pediments and solid building materials such as marble.



Erechtheion

WHERE: Athens, Greece

WHEN: 5th century BC

The ruins of a cult temple with Ionic columns.

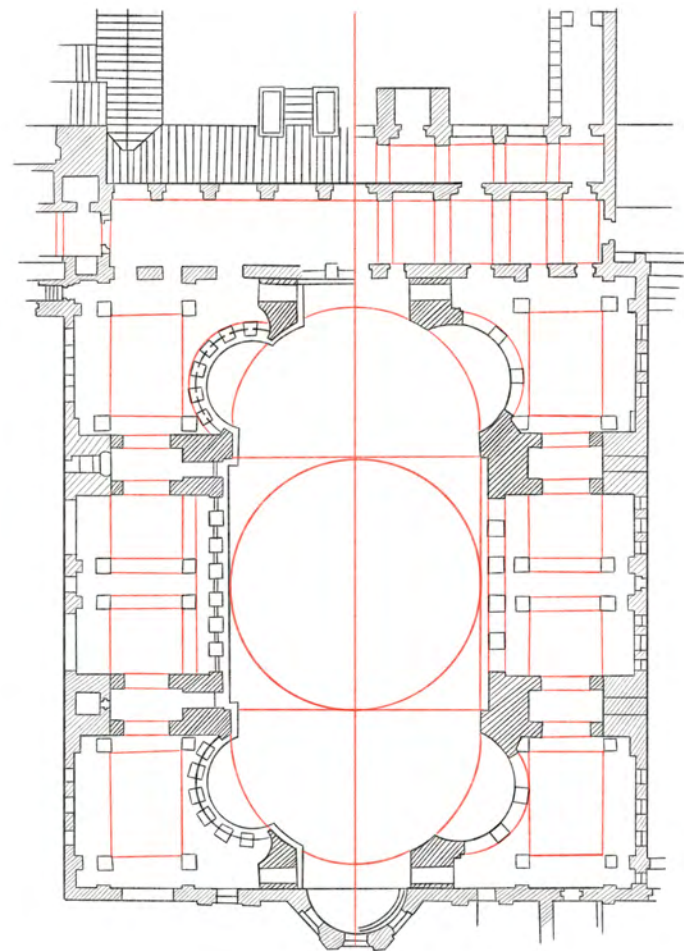


→ The caryatids of the Erechtheion are statues of women with baskets on their heads that substitute for classical columns.

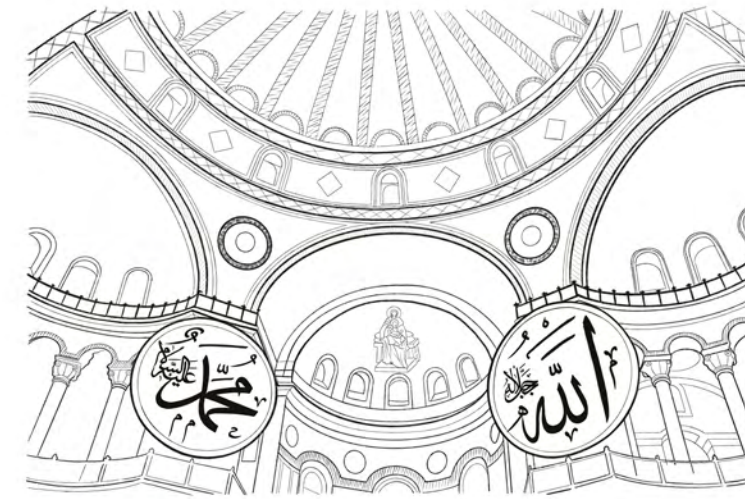


Hagia Sophia

WHERE: Constantinople, Turkey
(today Istanbul)
WHEN: 6th century



← The original building had a square floor plan. Later, it was built around and extended.



← Unlike Christian art, in which iconography is prominent, Islamic art does not depict holy figures such as saints. Even so, Hagia Sophia is one of the most unique mixes of cultural influences in architecture.

← The beautifully decorated dome is not supported by any masonry, just four columns, which give it the impression that it is hanging in the air.

Each building in this book has its own story and each building has changed its appearance over time, in the same way that the world around it has changed. However, the story of Hagia Sophia and the transformations it has been through are absolutely unique. For over a thousand years, this magnificent building was the largest cathedral and even the largest closed structure in the world. It was the symbol of the Byzantine Empire and remains the symbol of the capital of Turkey, Istanbul. It was originally a Christian cathedral built on the site of two churches at the instigation of Emperor Justinian. However, its appearance soon changed because of a devastating earthquake that temporarily deprived it of its dome. To prevent further damage to the dome, the architects had some of the windows walled up, making the interior much darker than it had been before. However, a fundamental change came with the Ottoman conquest of the Byzantine Empire, after which Hagia Sophia was transformed into a mosque with the addition of minarets. The result is a unique mix of cultures, where Christian wall paintings decorate the same space as Islamic ornamental decoration.



Glossary

A.....

Arabesque	A decorative element usually consisting of of plant motifs.
Aztec Empire	Empire of the indigenous people of Mesoamerica known as the Aztecs (14th– 16th century).

B.....

Basilica	In Christian architecture, it is a church that consists of several naves, in which the central part has windows and is higher than the parts that adjoin it.
Buddhism	A religion without a God, a spiritual-philosophical system based on the teachings of Siddhartha Gautama (Buddha).

C.....

Calligraphy	The painting of letters or calligraphy art.
Cathedral	An important Christian church that is the seat of a bishop or archbishop.
Caryatid	A statue of a woman that functions as a column.
Christianity	A monotheistic religion based on the life and teachings of Jesus of Nazareth.
Church	The unified body of Christian believers.

E.....

Exterior	What is visible from the outside, the outside part, the opposite of the interior.
----------	---

F.....	
Facade	The outer wall of the building and its arrangement.

G.....	
Gopuram	In Indian architecture, it is a rectangular stepped tower, usually with rich relief decoration, above the gates of a temple.

H.....

Hieroglyphs	A type of ancient writing.
Hinduism	Beliefs, values, and customs of the major religion of India, characterized by the worship of many gods with the supreme god Brahma.

I.....

Icon	The depiction of holy figures in Christianity.
Interior	The inside of a building.
Islam	A monotheistic religion based on the teachings of the Prophet Muhammad.

J.....

Jainism	An ancient Indian religion based on asceticism.
Jesuit Order	One of the most important and largest religious orders of the Roman Catholic Church. It was founded in 1534 by the renowned Christian mystic St. Ignatius of Loyola.

K.....

Kaaba	A cube-shaped structure that is said to house a piece of a meteorite. It is the holiest building in Islam, located at the centre the courtyard of the Great Mosque in the city of Mecca.
Kalinga style	A style of Hindu architecture typical of the ancient Kalinga region in the present-day eastern Indian state of Odisha.
Khmer	A majority ethnic group in Cambodia

M.....

Mandala	A pattern that symbolizes the universe in Indian religions.
Māru-Gurjara	A style of North Indian temple architecture that emerged in the

Mausoleum	period from the 1 1th to the 13th century.
Maya Civilization	A monumental tomb.
Mihrab	The original culture of Mesoamerica (3rd Century BC to 17th Century AD)
	A niche in the centre of the wall of a mosque indicating the direction of Mecca.

Minaret	A tower that is part of a mosque.
Monotheism	A religion that worships only one God.
Mosaic	A pattern produced by arranging together small pieces of stone.

N.....

Nave	Central part of the church building. Place for people to gather.
------	--

O.....

Ornament	A decorative element in architecture, for example, on walls.
Orthodoxy	An insistence on traditions.

P.....

Pagoda	A Buddhist tower-like stepped building, which is widespread in East and South-east Asia.
Pilaster	A relief element resembling a column, whose function is only decorative.
Portal	A decorative entrance to a building.
Portico	Porch with roof supported by columns at regular intervals

R.....

Relief	A three-dimensional piece of art that emerges out of the surface of a building.
Revivalism	The acknowledged use of an element of previous architectural styles.
Rotunda	A type of building with a circular ground plan typical for the pre-Romanesque and Romanesque periods.
Rose window	A circular decorative window widely used in the Middle Ages.

S.....

Sacred buildings	Buildings designed for religious or ritual purposes.
Secular buildings	Buildings of a non-religious nature.
Stained glass	Coloured and variously artistically

Stupa	decorated glass panels for windows.
	A Buddhist structure, originally a tomb, which symbolizes peace and tranquillity.
Sutra	A sacred Buddhist text.

T.....

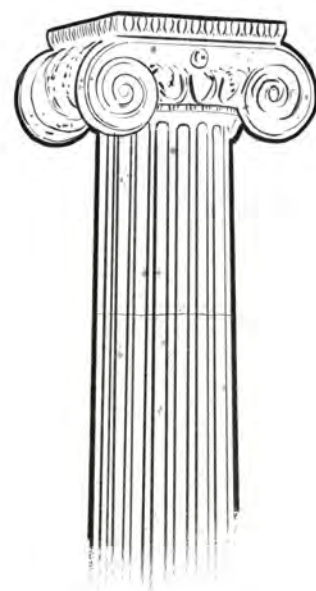
Talud-tablero	An architectural element used on platforms, temples, and pyramids of pre-Columbian Mesoamerica.
Taoism	An ancient Chinese spiritual discipline.
Tympanum	A decorated area in the gable between the cornice and the roof of a building.

W.....

Woodcut.	A technique of carving a motif into wood.
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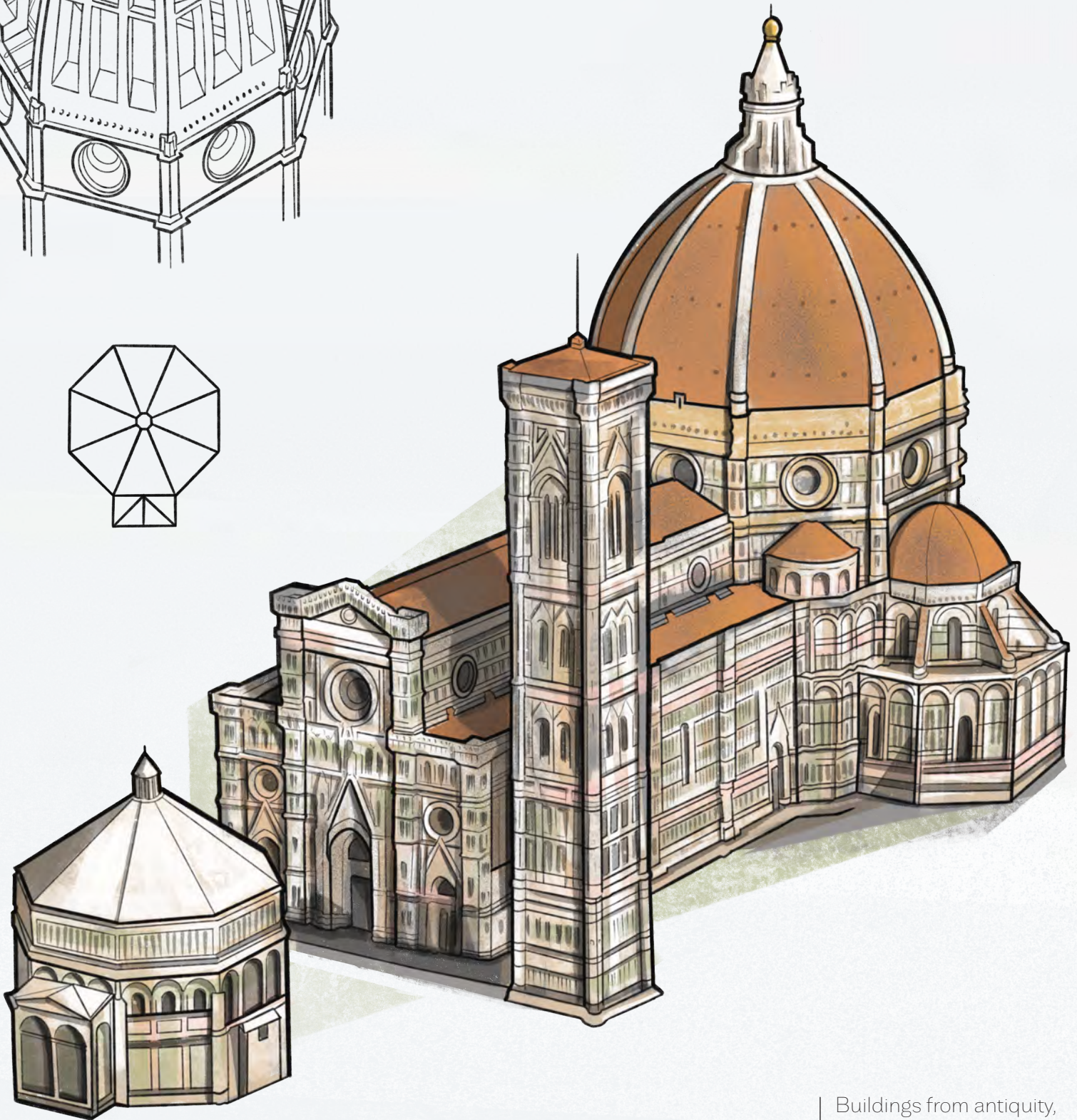
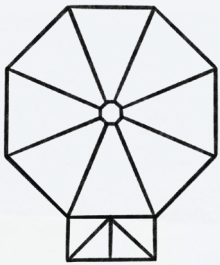
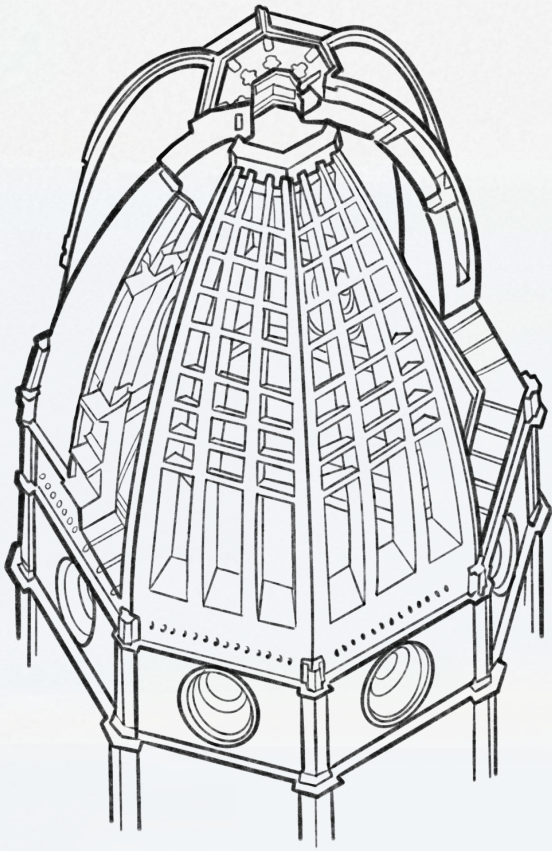
Z.....

Zapotec civilization	A warrior tribe of the indigenous people of Mesoamerica (8th century BC– 16th century AD)
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From the Pyramids to the White House

Have you ever really looked at the buildings you walk past every day? If not, stop and take a good look around you. Some have been standing for ages, while others were built only recently. Each one is different and bears certain characteristic signs. From these signs, people who know about architecture can tell the age of a building and the architectural style it follows. It's like looking back into history. Would you like to learn how to read the architecture of buildings? If so, welcome to this book. It features the most important historical buildings from all over the world. Here you will learn how architecture has developed over time and what it is really about.



Buildings from antiquity,
middle ages and beginnings
of modern times.