

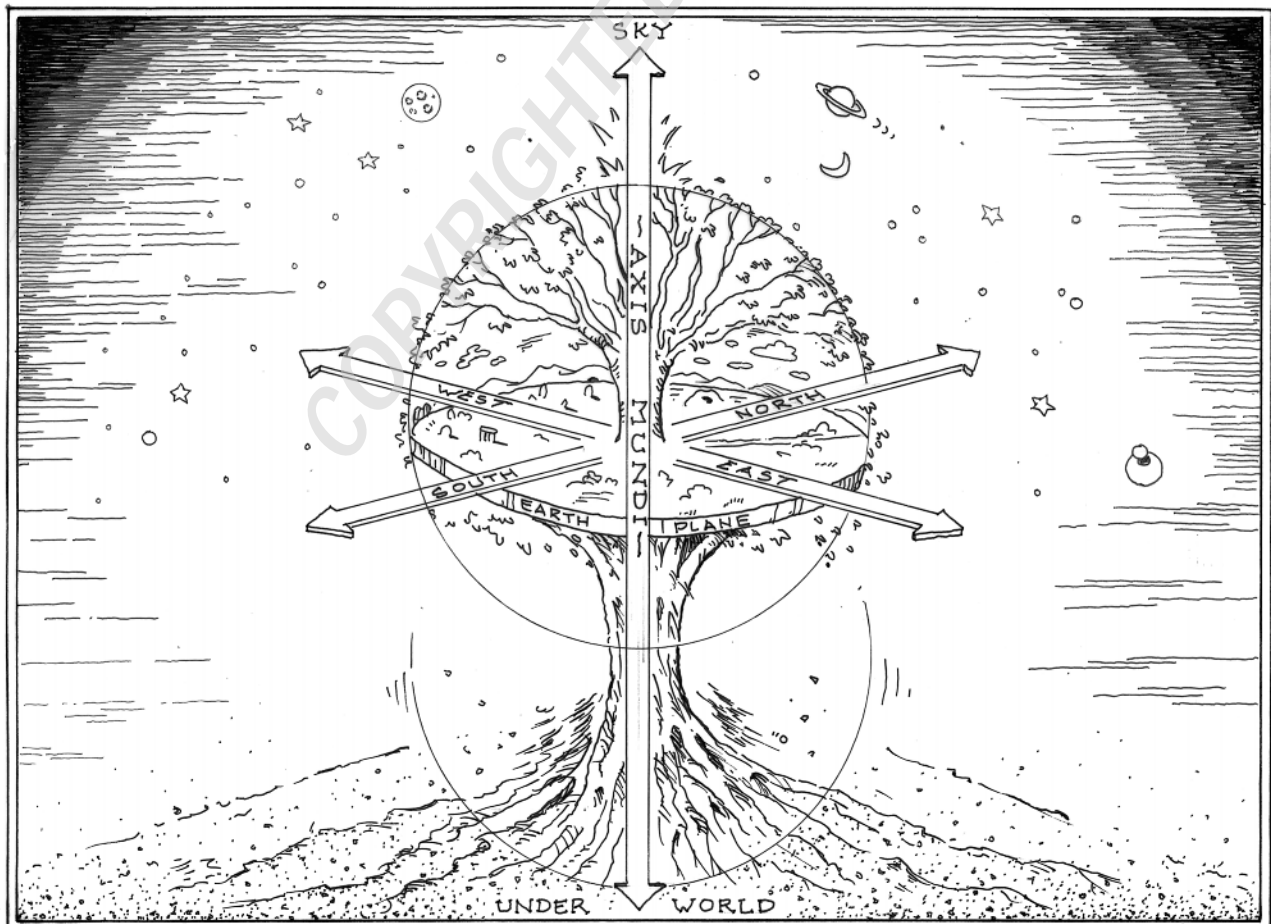
PREHISTORY TO 6th CENTURY

Early cultures attempted to re-create or express in their built landscapes the sacred meanings and spiritual significance of natural sites and phenomena. People altered the landscape to try to understand and/or honor the mysteries of nature. Early “landscape design” elaborated on humankind’s intuitive impulse to dig and to mound. Our ancestors constructed earthworks, raised stones, and marked the ground, leaving traces of basic shapes and axial alignments. The purpose or function of many of these spaces is still conjecture.

Cultural values shifted in later antiquity with the advent of philosophical systems based on a human being’s capacity for deductive reasoning. People looked for rational explanations for nature’s mysteries. The ancient Greeks respected nature as the sanctuary of the Gods, but equally valued the human domain. Their focus on the role of the individual in relationship to the larger community fostered democratic ideals that were revealed in architecture, in urban form, and in the consideration of the landscape as a place of civic responsibility.

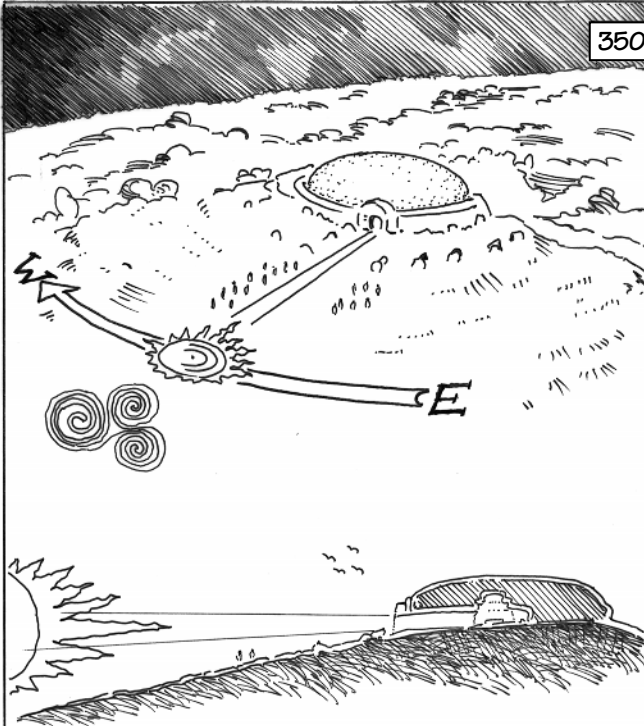
The illustrative chronology presented in this chapter is organized thematically, as follows:

- *Cosmological Landscapes* characterizes prehistoric earthworks and patterns.
- *Ancient Gardens* describes early parks and villas.
- *Landscape and Architecture* illustrates temple grounds, buildings, and important site plans.
- *Genius Loci* depicts sacred landscape spaces.



COSMOLOGICAL LANDSCAPES

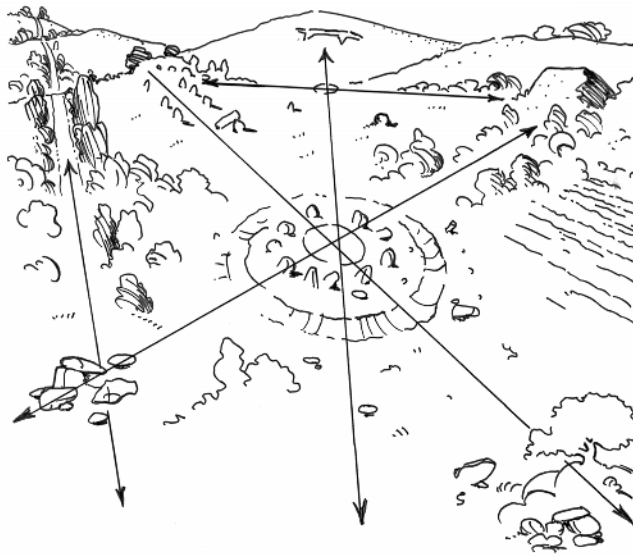
3500 BCE



► 2950 BCE–1600 BCE

STONEHENGE, ENGLAND

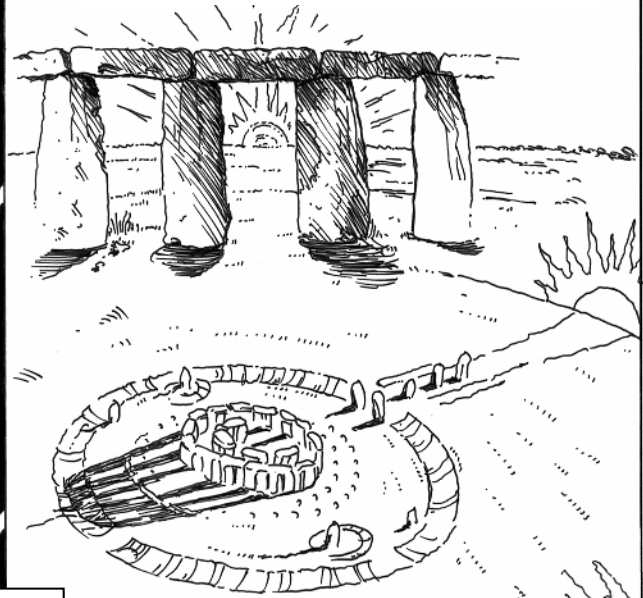
Built by different groups of people at different times, this particular site on the Salisbury plain in southwest England evolved from an earthen embankment, to a wooden structure, to the stone circles we recognize today. A circular ditch and bank (or “henge”), about 330 feet in diameter, marked the first phase of construction. Extant postholes within the circle indicate the position of a wooden structure from about 2600 BCE. The standing stones date from subsequent centuries. All the shapes open to the northeast, framing sunrise on the summer solstice.



◄ c. 3200 BCE

NEW GRANGE, IRELAND

The circular passage tomb at New Grange is over 250 feet wide and contains three recessed chambers. On the winter solstice, the sun rises through a clerestory above the entryway, illuminating the central chamber. A curbstome carved with triple-spiral motifs marks the entryway.



2000 BCE



▲ Woodhenge, located about 2 miles from Stonehenge, was a timber circle of roughly the same diameter that marked a burial site dating from the Neolithic era. Sunrise on the summer solstice aligned with its entryway.

◄ LEY LINES, ENGLAND

Some people believe that Great Britain and continental Europe are marked with a network of straight lines that connect geographic features and sacred sites through underlying paths of energy within the earth.

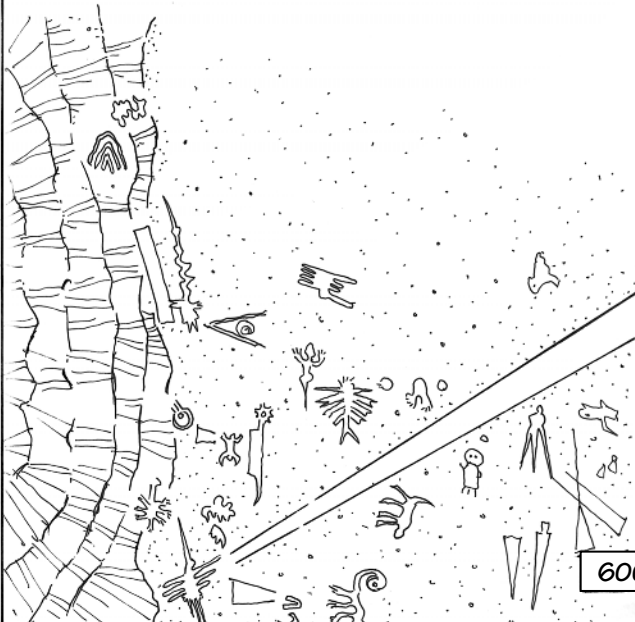
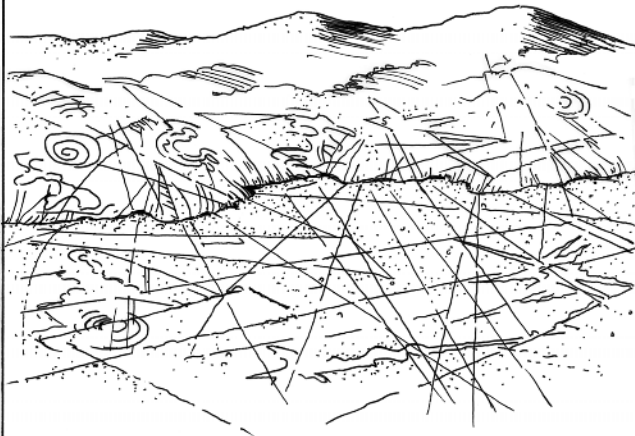
COSMOLOGICAL LANDSCAPES

► SONGLINES, AUSTRALIA

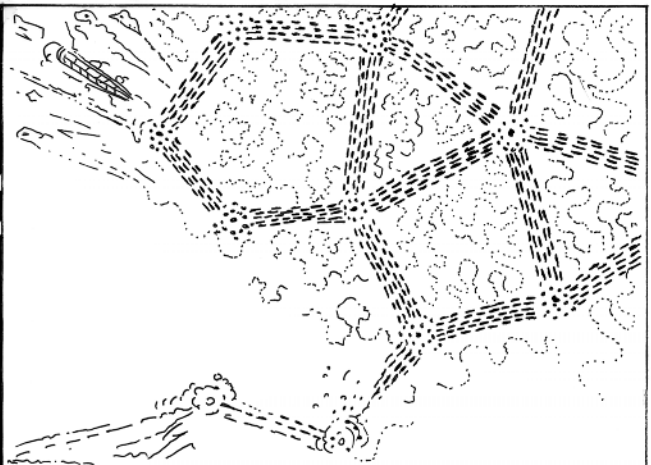
Indigenous creation myths relate how ancestral beings walked the continent singing the world into existence. Native peoples were believed to have used these songlines as way-finding mechanisms. Traditional paintings illustrate similar spiritual journeys.



200 BCE

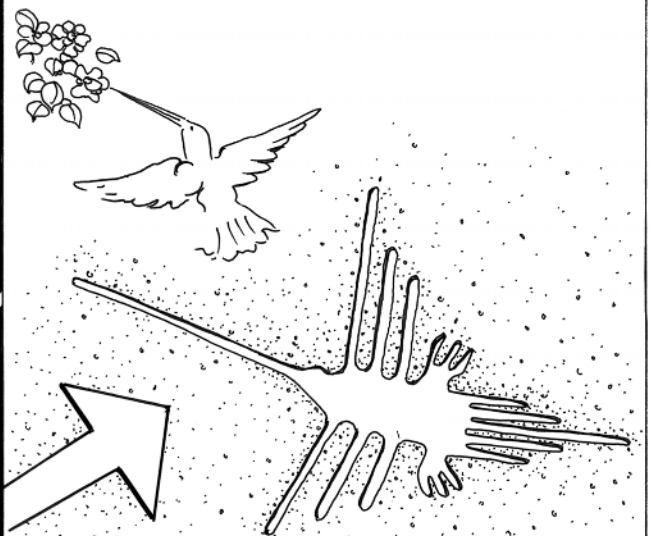


600 BCE



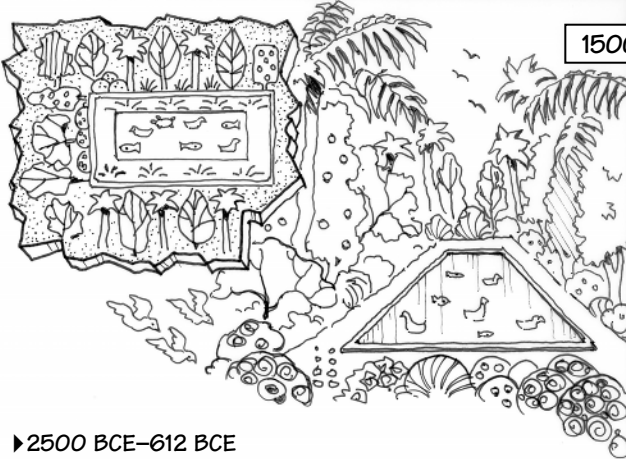
◀ 200 BCE–600 CE NAZCA LINES, PERU

An extensive series of straight lines, geometric shapes, and animal figures were inscribed on the dry lake bed by overturning gravel and exposing the lighter-colored earth below. Archeologists are not certain which culture produced these geoglyphs, nor whether their purpose was related to religion, ritual, water sources, or astronomy.¹



ANCIENT GARDENS

1500 BCE



◀1380 BCE

TOMB OF NEBAMUN, THEBES

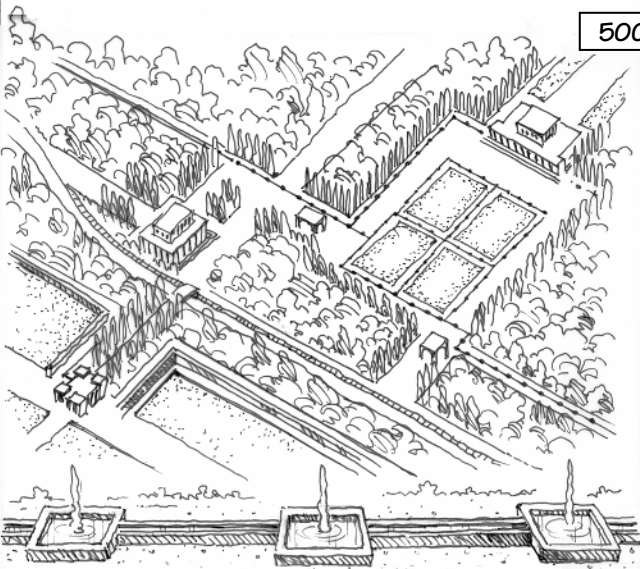
The gardens depicted on the walls of wealthy Egyptian officials are an important primary source of information about the ancient Egyptian landscape. Shown here is an ordered arrangement of specific plants around a rectangular basin stocked with fish.



▶2500 BCE–612 BCE

MESOPOTAMIAN HUNTING PARKS

Written accounts describe the large enclosed parks of the Sumerians, Babylonians, and Assyrians as being stocked with exotic plants and animals—evidence of early management of the landscape. *The Epic of Gilgamesh* described the ancient Sumerian city of Uruk as being composed of equal parts city, garden, and field.²



500 BCE

◀546 BCE

PASARGADAЕ, PERSIA

The imperial capital of Cyrus the Great was described by ancient Greeks and Romans as having a geometric division of space defined by water and trees, an early example of the four-square pattern later associated with “paradise” gardens. Existing ruins show the close relationship of buildings and gardens and the decorative use of water. Gardens provided visual and climatic comfort, not spaces for active use.³

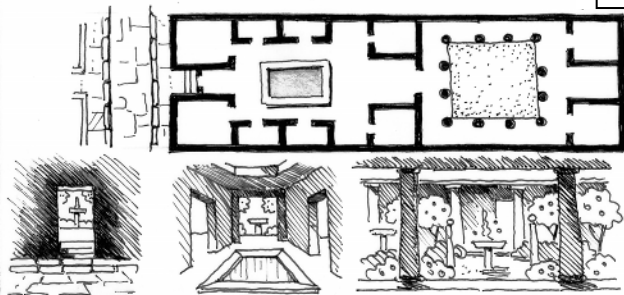


50 CE

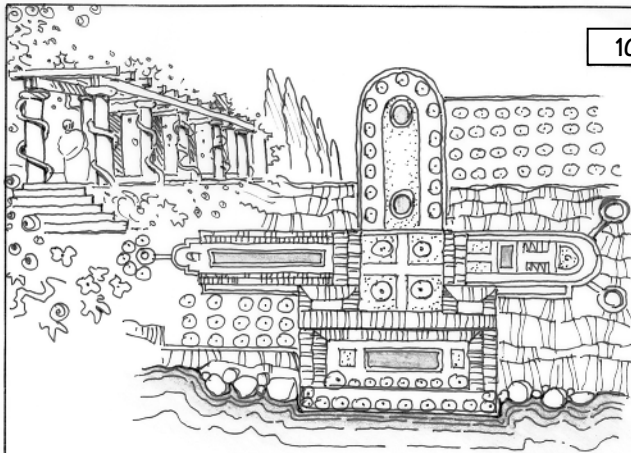
◀c. 79 CE

HOUSE OF THE VETTII, POMPEII

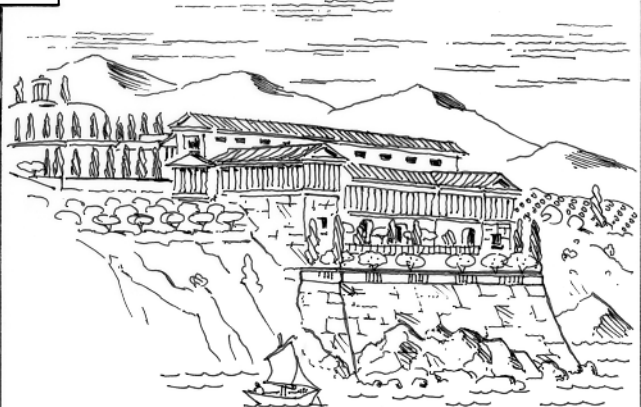
The former Greek colony of Pompeii was a popular resort town for wealthy Romans. Forms of 1st-century architecture and landscape were preserved under layers of ash and debris from the eruption of Mt. Vesuvius in 79 CE. A typical Roman town house contained a paved atrium and a garden court surrounded by a roofed colonnade, or peristyle. Garden scenes painted on the walls of the peristyle garden visually extended the space.



ANCIENT GARDENS



100 CE



▲ c. 100 CE

PLINY'S SEASIDE VILLA, NEAR ROME

In his numerous letters, Pliny the Younger (61–112 CE) recorded many aspects of his life and times, including detailed descriptions of his country houses and their relationship to the landscape. He planned the rooms of his *villa marittima* according to their functional and climatic requirements, and to take advantage of views. The architectural form of Pliny's villa, as well as its function as a place of escape from urban responsibility, particularly inspired Renaissance designers.



500 CE

▲ 118 CE

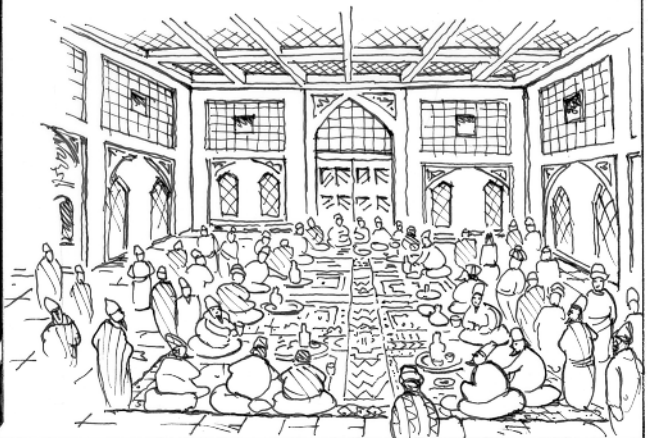
HADRIAN'S VILLA, TIVOLI, ITALY

Located 15 miles east of Rome in the foothills of the Sabine mountains, the complex of structures and decorative elements that comprise the imperial villa of Hadrian reflect the emperor's fascination with architecture and his love of Classical culture. Today, ruins cover about 150 acres, or half of what scholars have estimated as the full extent of the villa.⁴

► c. 540 CE

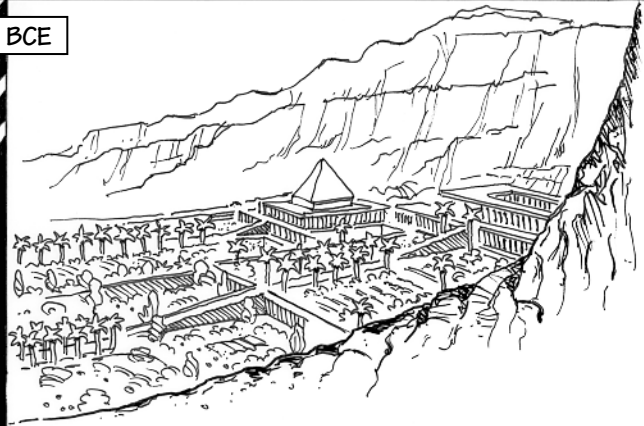
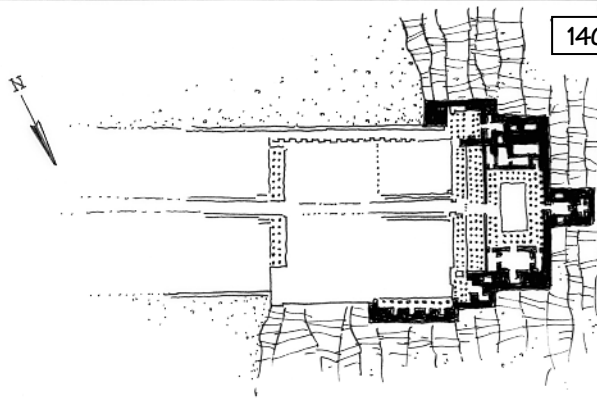
SPRING OF KHOSROW CARPET (IRAQ)

Woven with gold and precious stones, the carpet made for the audience hall in King Khosrow's imperial palace near Baghdad was over 450 feet long. Depicting a lushly planted garden of rectangular beds divided by paths and watercourses, the carpet, which survives only through written accounts, symbolized an Eden-like paradise in a harsh desert environment.



LANDSCAPE AND ARCHITECTURE

1400 BCE



▲ 1400 BCE

MORTUARY TEMPLE OF HATSHEPSUT, DEIR EL-BAHRI, EGYPT

Dramatically sited at the base of a cliff on the west bank of the Nile River, Queen Hatshepsut's tomb comprised a series of monumental terraces and colonnades symmetrically organized around a processional axis. Tomb paintings show frankincense and myrrh trees imported from Somalia; archaeological evidence confirms the presence of exotic vegetation on the terraces.⁵



◀ 460 BCE

ACROPOLIS, ATHENS, GREECE

A sacred hilltop site since the early Neolithic period, the acropolis was once the location of a Mycenaean fortress. It remains symbolic of Classical Greek civilization and the architecture of democracy. Following the war with Persia, the Athenian statesman Pericles undertook a major campaign to restore the city and rebuild its temples. The Parthenon dates from this era and represents the Doric order—a proportioning system based on the length and width of the column style.⁶ The Panathenaic Way marked the route from the city gates to the acropolis.

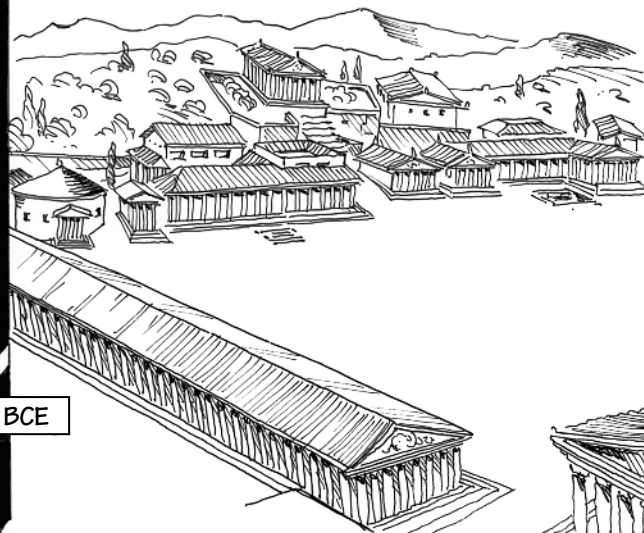
400 BCE

▶ 200 BCE

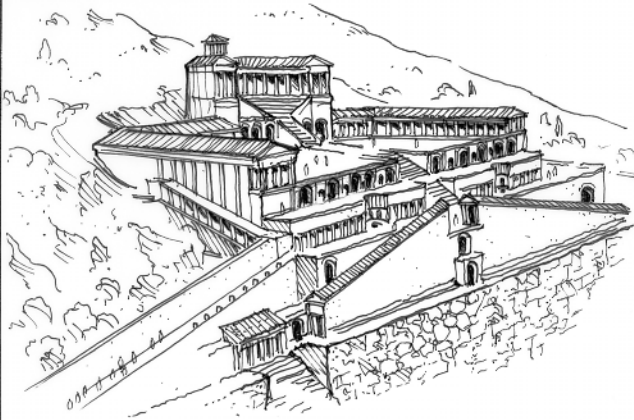
ATHENIAN AGORA

The *agora* was the civic heart of Athens, where people gathered to conduct personal business and participate in municipal affairs. Tracing the use and development of this open space over the centuries frames an informative picture of Greek culture during the Archaic (c. 750–c. 480 BCE), Classical (c. 500–323 BCE), and Hellenistic (323–146 BCE) periods. The shaping of public space became more self-conscious.⁷

200 BCE



LANDSCAPE AND ARCHITECTURE



◀ 82 BCE

TEMPLE OF FORTUNA PRIMIGENIA, PALESTRINA, ITALY

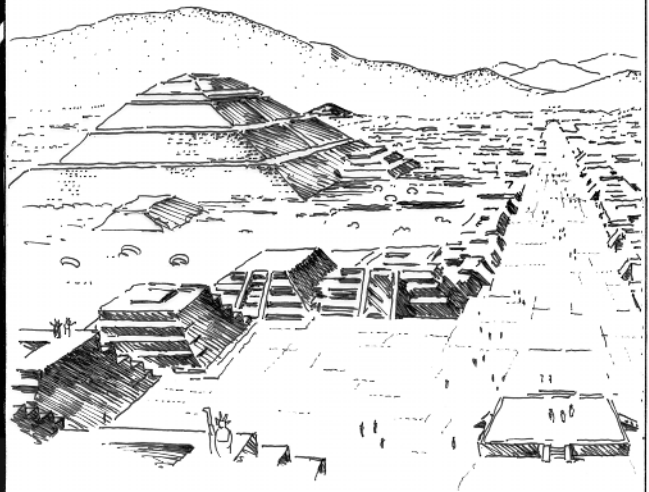
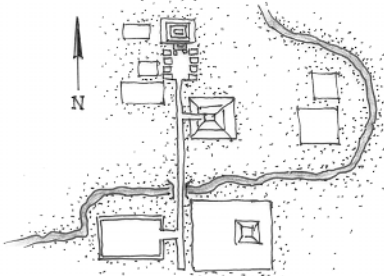
This monumental piece of urban design combined Hellenistic principles of movement about an axis with Roman arch technology. The grand staircases, ramps, and arcaded terraces that gracefully negotiated the slope and culminated in an exedra influenced Italian Renaissance designers. The sanctuary was over 1,000 feet above sea level and visible from the Tyrrhenian Sea.

80 BCE

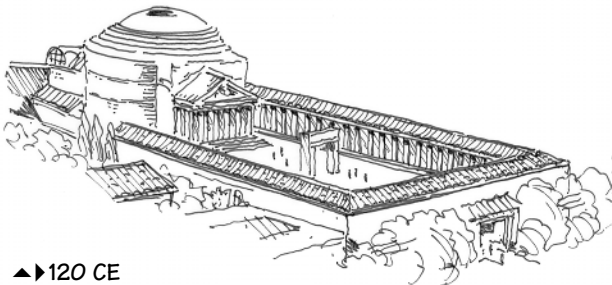
▼ ▶ c. 100–225 CE

TEOTIHUACAN, MEXICO

With a population of more than 100,000 people, Teotihuacan, the cultural center of Aztec civilization, was the largest city in the world during the late 2nd century. The Avenue of the Dead formed the main axis of the orthogonally planned city, which was oriented toward the cardinal directions. The Temple of the Moon was the northern terminus and echoed the shape of Cerro Gordo. The Aztecs sited the Pyramid of the Sun over a cave near the middle of the axis. The large sunken plaza, the *ciudadela*, was located across what is now the San Juan River at the southern terminus of the axis.



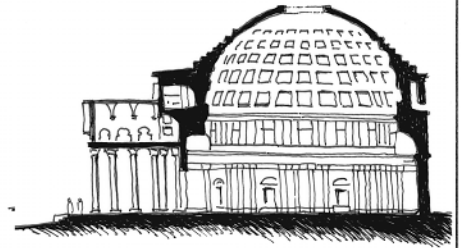
100 BCE



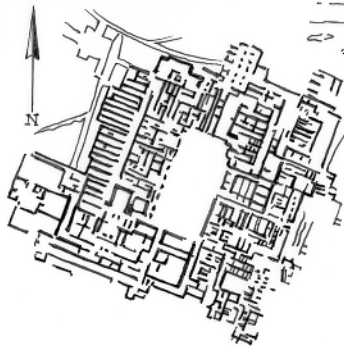
▲▶ 120 CE

PANTHEON, ROME

Marcus Agrippa constructed a small temple on this site in 27 BCE. The current structure dates from the reign of Hadrian, and until the 15th century was the largest concrete dome ever built. The height of the dome equals its width; its proportions and construction methods were studied by Renaissance architects, particularly Brunelleschi, who designed an even larger dome for the cathedral in Florence. An opening in the center of the dome, the *oculus*, creates dramatic lighting and atmospheric effects.



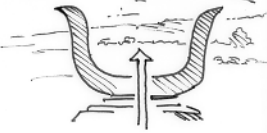
GENIUS LOCI



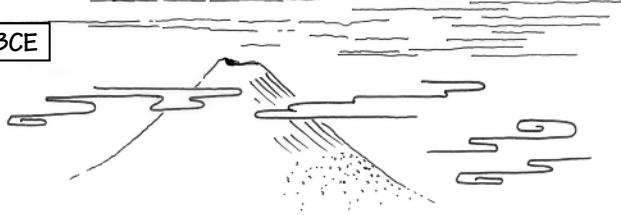
▲ c. 2000–1470 BCE

MINOAN CIVILIZATION, CRETE

The unfortified palace at Knossos contained a large open courtyard. “Horns of consecration” placed about the palace represented the bull sacrifice and symbolized the sacredness of the space. A reconstructed pair of horns, interpreted also as the raised arms of the Earth Goddess, frames a view of a distant mountain sanctuary.

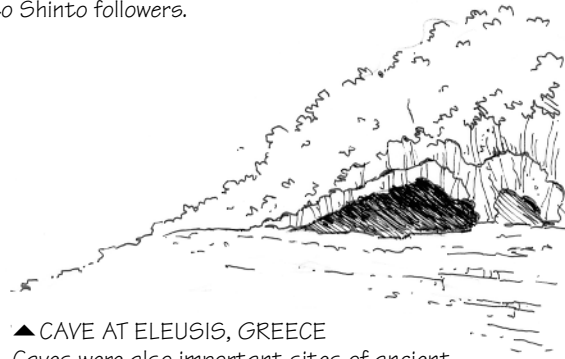


2000 BCE



▲ MT. FUJI, JAPAN

Certain natural features, like mountains, were revered in many cultures as sacred spaces. Mt. Fuji was particularly sacred to Shinto followers.



▲ CAVE AT ELEUSIS, GREECE

Caves were also important sites of ancient rites and rituals. The cave of Persephone at Eleusis was the site of the annual celebration of the rebirth of spring, reenacted as the mystery of Persephone's return from the underworld.

600 BCE



◀ c. 600 BCE

DELPHI, GREECE

Delphi was the site of a Mycenaean village and an oracular shrine of Gaia, the Earth Goddess. By the 7th century BCE the site had been rededicated to the worship of Apollo by the Greeks.



A



B



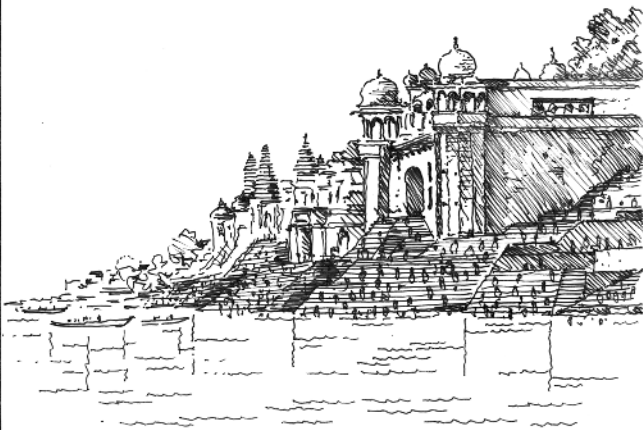
C



D

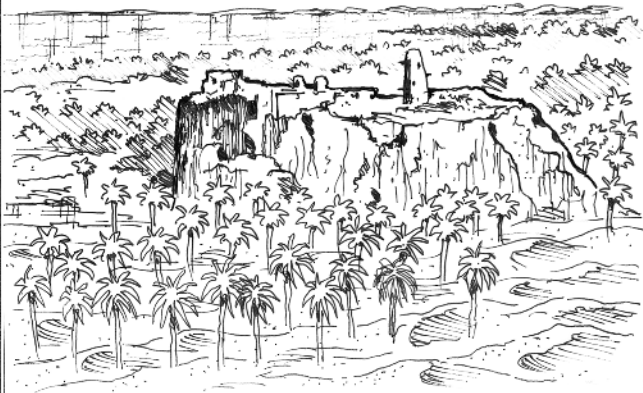
▲ Outside the *temenos*, or sacred precinct of Apollo, was the *tholos*, a circular temple in Athena's sanctuary (A), and the Castalian spring, an important pilgrimage station (B). The temple of Apollo itself (C) enclosed the *omphalos*, or navel of the earth, where vapors emanated from natural fissures. A priestess, perched on a tripod over the *omphalos*, burned laurel leaves in a sacred hearth (D). Attendant priests interpreted her prophecies.

500 BCE



▲ THE GANGES

More than 1,500 miles long, the Ganges River is believed to be the sacred river of salvation by Hindus. The riverside city of Varanasi became the capital of the Kashi kingdom in the 6th century BCE and remains a particularly holy place of worship in northern India. The riverbank is lined with temples, shrines, and steps, called *ghats*.

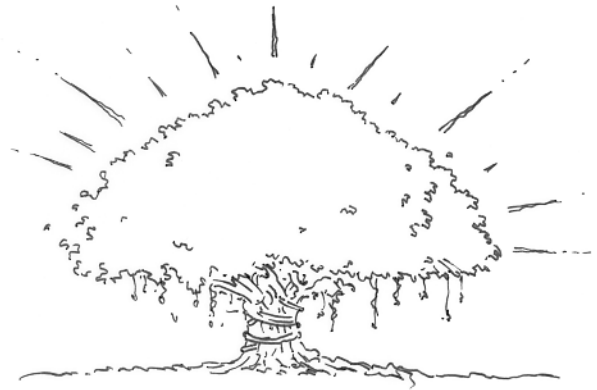


▲ 331 BCE

SIWA OASIS

Alexander the Great persevered through the Libyan desert by following birds to the western oasis, located in present day Egypt. The Siwa Oasis has been home to Berber tribespeople for hundreds of years, and was established as the site of the sacred oracle of Amun by the ancient Greeks.

300 BCE



▲ 563–483 BCE

BODHI TREE, INDIA

According to Buddhist tradition, Gautama Buddha received Enlightenment under a Bodhi tree. The tree was revered by Buddhists as a holy shrine and remains a sacred pilgrimage site.



▲ 219 BCE

ISLANDS OF THE IMMORTALS (CHINA)

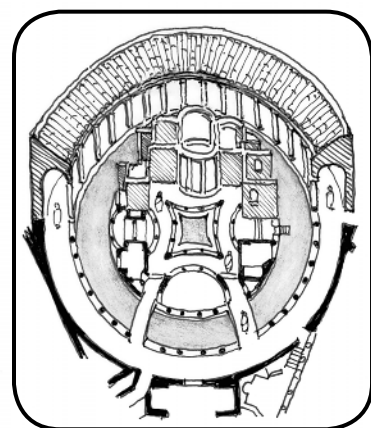
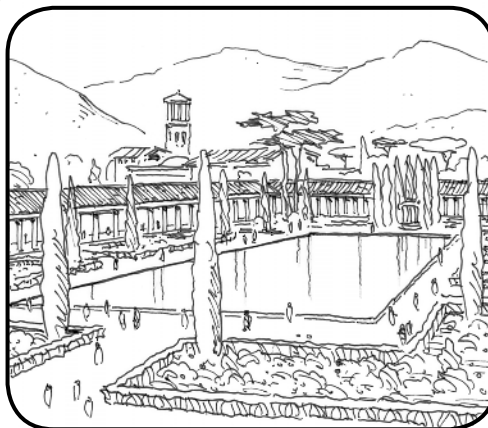
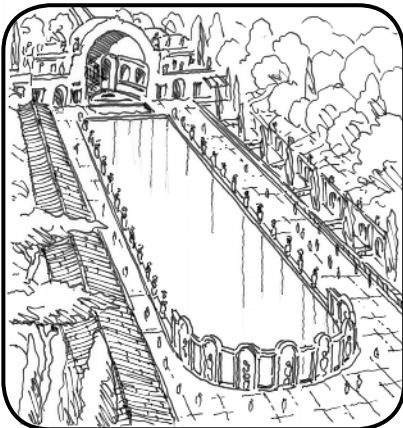
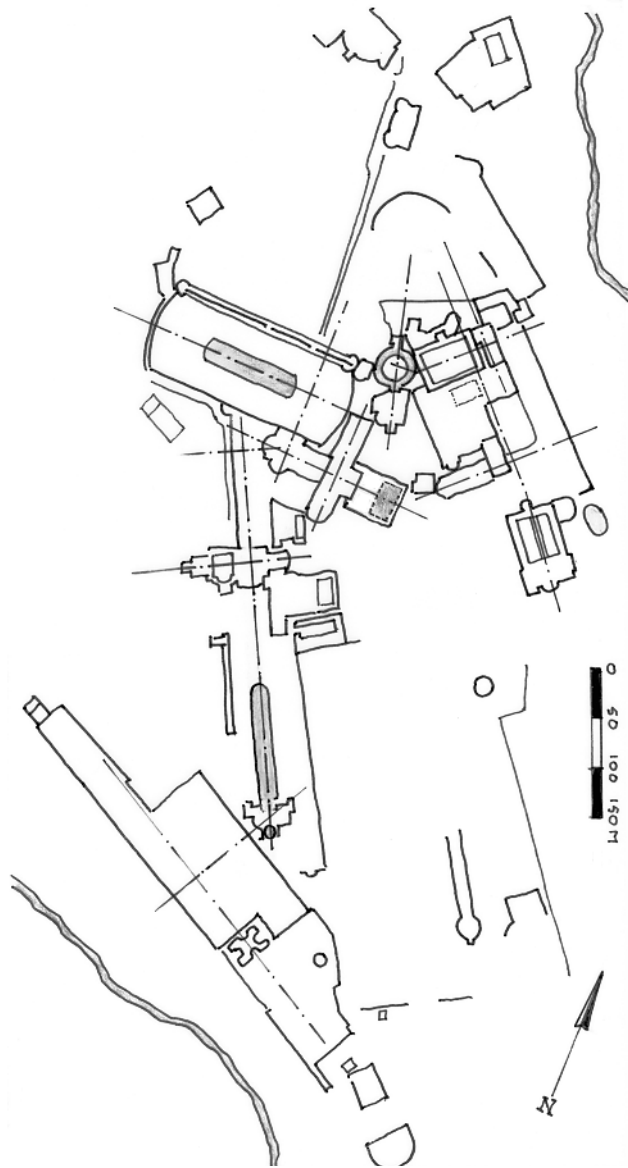
Emperor Qin Shi Huangdi[®] was obsessed with finding an elixir of eternal life. He sent an expedition to the Himalayas to locate the mountaintop dwellings of the mythical Immortals. The Immortals never materialized, but the idea of creating a simulation of their homeland was popularized in the Han dynasty. Within his imperial palace grounds, Emperor Wudi (141–86 BCE) built three artificial mountains in a lake, establishing the influential prototype of the lake-and-island garden.

CASE STUDY: *Hadrian's Villa*

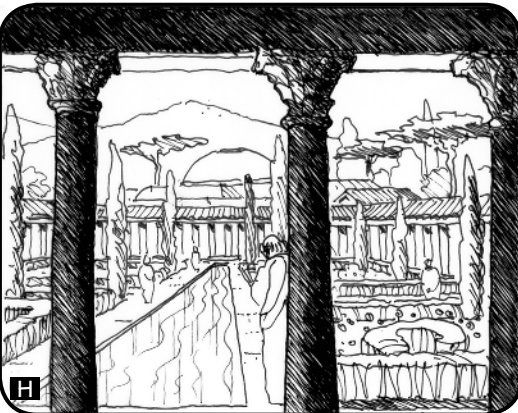
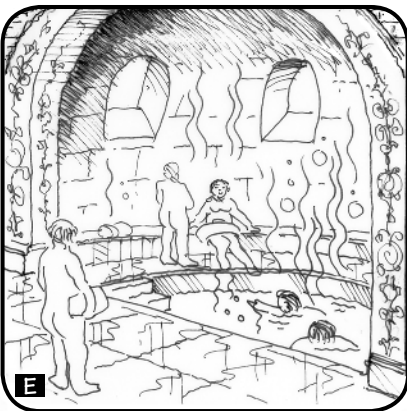
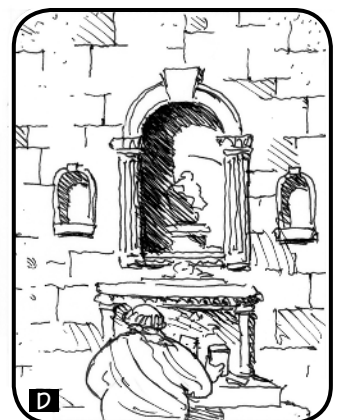
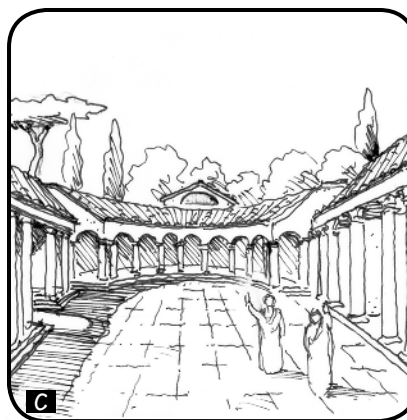
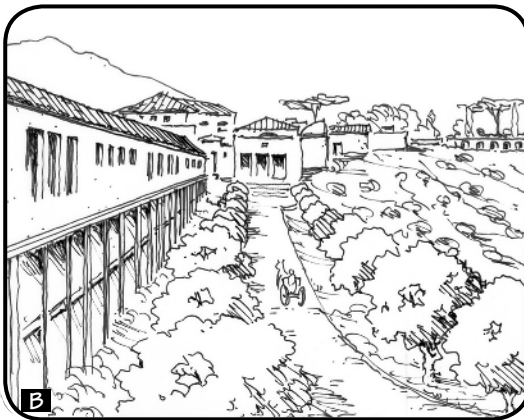
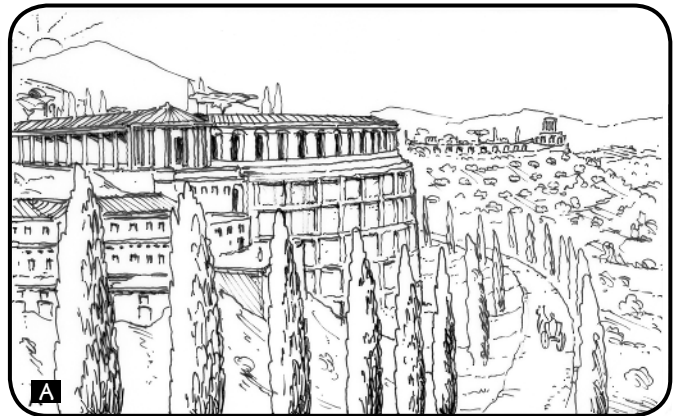
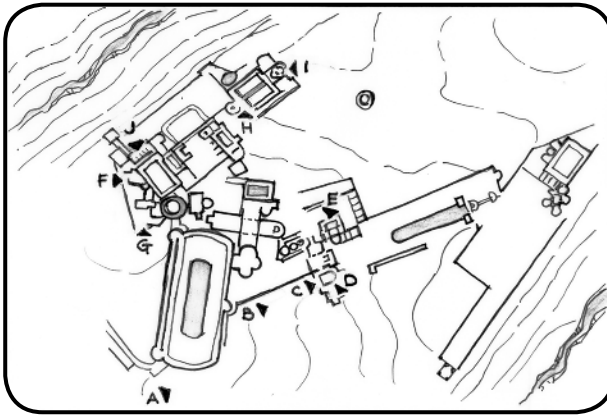
Hadrian (76–138 CE) collected ideas and treasures from places within his vast empire and reassembled them in his imperial estate near Rome. A Roman design vocabulary expressed foreign forms: the *canopus* (named after a branch of the Nile river) is a long rectangular canal, bordered by caryatids on one side and terminated at its southern end by an apsed *nymphaeum* (which possibly served as a dining room) and a semicircular colonnade at its northern end. The long *stoa poeile* (named for the painted stoa at Athens) provided a space to promenade year-round. The Vale of Tempe (a reference to the legendary forest at the foot of Mount Olympus), the Lyceum, and the Academy were other architectural elements of the villa that were inspired by Hadrian's interest in Greek culture.

The charming “maritime theater” is a small, rounded apsidal structure on a round island surrounded by columns and a moat; its function is unknown. Baths, theaters, libraries, guest quarters, and peristyle gardens were interconnected and decorated with artworks.

Set on a prow of land between two rivers, the proximity to water was necessary for the extensive waterworks, fountains, pools, and basins at the villa. Building sites respected the natural contours of the land, while terraces took advantage of views. No organizing geometry unified the site plan, although each self-contained space was organized axially. The site was held together conceptually by its thematic associations.



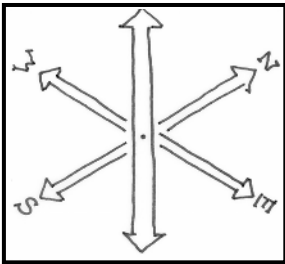
CASE STUDY: *Hadrian's Villa*



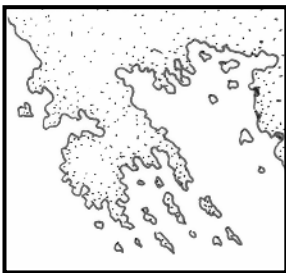
SUMMARY

Around 8,000 years ago, complex social systems began to emerge simultaneously in South and Central America, in Egypt and the Middle East, and in India and Asia.⁹ Early civilizations established similar ways of communicating with the sacred spirits inherent in nature. As cultures advanced and humans gained more control over the natural world, we organized the landscape for physical and spiritual comfort. The idea of the garden as a managed pleasure ground evolved from the simple enclosed hunting grounds of Europe and Asia. In ancient Greece and Rome, a new trust in human logic resulted in the substitution of anthropomorphic deities for nature spirits. Sacred structures soon replaced sacred landscapes.

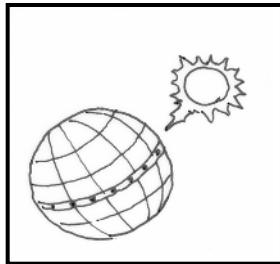
IMPORTANT CONCEPTS



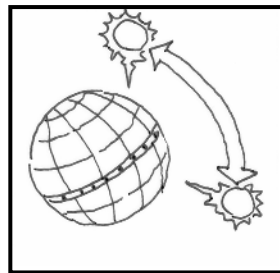
An *AXIS MUNDI* is a symbolic line that extends from the sky to the underworld with the earth at its center. Trees, mountains, pyramids, and earth mounds might all be considered axes mundi.



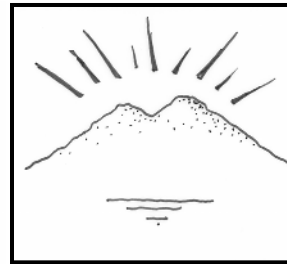
A *POLIS* is an ancient Greek city-state. The mountainous topography and island geography of Greece promoted the formation of independent city-states.



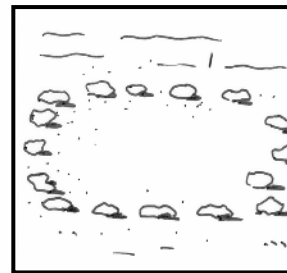
An *EQUINOX* is the day the sun crosses the equator, marking days and nights of equal length. The vernal (spring) equinox is March 20; the autumnal equinox is September 23.



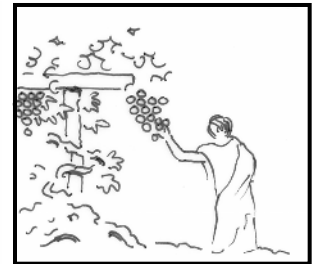
A *SOLSTICE* is the furthest point the sun reaches in the sky. The summer solstice on June 21 is the longest day of the year; the winter solstice on December 21 is the shortest day of the year.



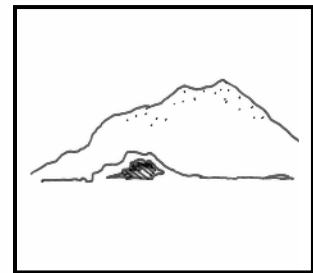
GENIUS LOCI refers to the unique spiritual force inherent in a place.



TEMENOS is the Greek word for a delimited sacred precinct.

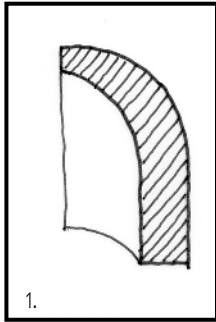


OTIUM is the Roman concept of leisure afforded by a natural setting. It is exemplified by the idea of a country villa.

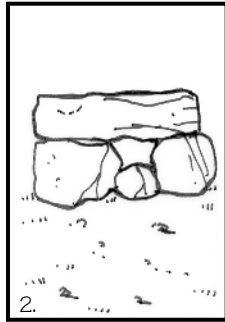


TOPOS is Aristotle's philosophy of place as defined by specific natural features.

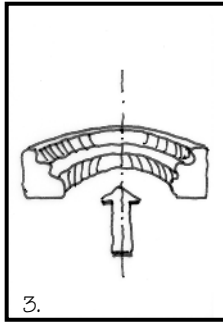
DESIGN VOCABULARY



1. An **APSE** is a vaulted, semicircular recess in a building.



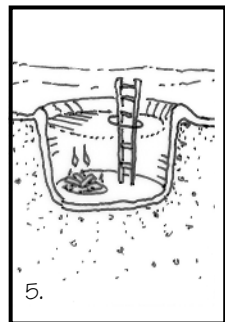
2. A **DOLMEN** is a stone grouping with a flat, horizontal stone on top. Dolmens were used as primitive graves.



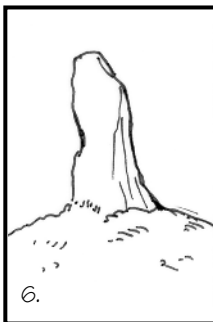
3. An **EXEDRA** is a semicircular or concave shape terminating a space.



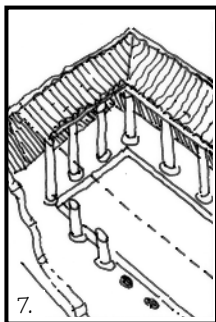
4. **GEOGLYPHS** are images inscribed on the earth.



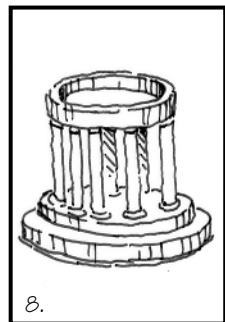
5. A **KIVA** is a sunken or subterranean ceremonial room used in Puebloan cultures.



6. A **MENHIR**, or megalith, is an individual standing stone.



7. A **PERISTYLE** garden is a colonnaded courtyard; it was the informal, outdoor living space in a Roman town house.



8. A **THOLOS** is a circular temple.



9. A **ZIGGURAT** is a terraced pyramid form.

For further exploration

BOOKS

300, a graphic novel by Frank Miller and Lynn Varley

DE ARCHITECTURA (TEN BOOKS ON ARCHITECTURE), by Vitruvius (27 BC)

EARTH'S CHILDREN, series by Jean Auel

I, CLAUDIUS, by Robert Graves

THE ILIAD AND THE ODYSSEY, by Homer

MEMOIRS OF HADRIAN, by Marguerite Yourcenar

NATURALIS HISTORIA (NATURAL HISTORY), by Pliny the Elder (23–79 CE)

POMPEII, by Robert Harris

SONGLINES, by Bruce Chatwin

FILMS

10,000 BC (2008)

ALEXANDER THE GREAT (1956)

CLAN OF THE CAVE BEAR (1986)

CLEOPATRA (1963)

GLADIATOR (2000)

ROME (HBO TV series, 2005)

SPARTACUS (1960)

TROY (2004)

PAINTINGS AND SCULPTURE

Cave paintings at Lascaux (c. 30,000 BCE)

Venus de Willendorf (sculpture, c. 20,000 BCE)

Ram and Tree from Ur (Sumerian sculpture, c. 2600 BCE)

Minoan Snake Goddess (reliefs and sculptures, c. 1500 BCE)

Charioteer of Delphi (sculpture, c. 470 BCE)

Victory of Samothrace (sculpture, 190 BCE)

House of Livia (interior frescoes, c. 20 BCE)

Marcus Aurelius (equestrian statue, 176 CE)



