**Ancient Egypt**

From Wikipedia, the free encyclopedia

*For the British history magazine, see* [*Ancient Egypt (magazine)*](http://en.wikipedia.org/wiki/Ancient_Egypt_%28magazine%29)*.*

The [Great Sphinx](http://en.wikipedia.org/wiki/Great_Sphinx) and the [pyramids of Giza](http://en.wikipedia.org/wiki/Pyramids_of_Giza) are among the most recognizable symbols of the civilization of ancient Egypt.



|  |
| --- |
| [**History of Egypt**](http://en.wikipedia.org/wiki/History_of_Egypt) |
| **This article is part of** [**a series**](http://en.wikipedia.org/wiki/Category%3AEgypt) |
| [**Prehistoric Egypt**](http://en.wikipedia.org/wiki/Prehistoric_Egypt) pre–3100 BCE |
| [Ancient Egypt](http://en.wikipedia.org/wiki/History_of_ancient_Egypt) |
| [**Early Dynastic Period**](http://en.wikipedia.org/wiki/Early_Dynastic_Period_of_Egypt) 3100–2686 BCE |
| [**Old Kingdom**](http://en.wikipedia.org/wiki/Old_Kingdom_of_Egypt) 2686–2181 BCE |
| [**1st Intermediate Period**](http://en.wikipedia.org/wiki/First_Intermediate_Period_of_Egypt) 2181–2055 BCE |
| [**Middle Kingdom**](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt) 2055–1650 BCE |
| [**2nd Intermediate Period**](http://en.wikipedia.org/wiki/Second_Intermediate_Period_of_Egypt) 1650–1550 BCE |
| [**New Kingdom**](http://en.wikipedia.org/wiki/New_Kingdom_of_Egypt) 1550–1069 BCE |
| [**3rd Intermediate Period**](http://en.wikipedia.org/wiki/Third_Intermediate_Period_of_Egypt) 1069–664 BCE |
| [**Late Period**](http://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt) 664–332 BCE |
| [**Achaemenid Egypt**](http://en.wikipedia.org/wiki/History_of_Achaemenid_Egypt) 525–332 BCE |
| [Classical Antiquity](http://en.wikipedia.org/wiki/Classical_Antiquity) |
| [**Ptolemaic Egypt**](http://en.wikipedia.org/wiki/Ptolemaic_Kingdom) 332–30 BCE |
| [**Roman & Byzantine Egypt**](http://en.wikipedia.org/wiki/Egypt_%28Roman_province%29) 30 BCE–641 CE |
| [**Sassanid Egypt**](http://en.wikipedia.org/wiki/Sassanid_conquest_of_Egypt) 621–629 |
| [Middle Ages](http://en.wikipedia.org/wiki/Egypt_in_the_Middle_Ages) |
| [**Arab Egypt**](http://en.wikipedia.org/wiki/Muslim_conquest_of_Egypt) 641–969 |
| [**Fatimid Egypt**](http://en.wikipedia.org/wiki/Fatimid_Caliphate) 969–1171 |
| [**Ayyubid Egypt**](http://en.wikipedia.org/wiki/Ayyubid_dynasty) 1171–1250 |
| [**Mamluk Egypt**](http://en.wikipedia.org/wiki/Mamluk_Sultanate_%28Cairo%29) 1250–1517 |
| [Early Modern](http://en.wikipedia.org/wiki/Early_Modern) |
| [**Ottoman Egypt**](http://en.wikipedia.org/wiki/Egypt_Eyalet) 1517–1867 |
| [**French occupation**](http://en.wikipedia.org/wiki/French_campaign_in_Egypt_and_Syria) 1798–1801 |
| [**Egypt under Muhammad Ali**](http://en.wikipedia.org/wiki/History_of_Egypt_under_the_Muhammad_Ali_dynasty) 1805–1882 |
| [**Khedivate of Egypt**](http://en.wikipedia.org/wiki/Khedivate_of_Egypt) 1867–1914 |
| [Modern Egypt](http://en.wikipedia.org/wiki/History_of_modern_Egypt) |
| [**British occupation**](http://en.wikipedia.org/wiki/History_of_Egypt_under_the_British) 1882–1953 |
| [**Sultanate of Egypt**](http://en.wikipedia.org/wiki/Sultanate_of_Egypt) 1914–1922 |
| [**Kingdom of Egypt**](http://en.wikipedia.org/wiki/Kingdom_of_Egypt) 1922–1953 |
| [**Republic**](http://en.wikipedia.org/wiki/History_of_the_Republic_of_Egypt) 1953–present |
|  |

|  |
| --- |
| **Dynasties of Ancient Egypt** |
| [**Predynastic Egypt**](http://en.wikipedia.org/wiki/Predynastic_Egypt) |
| [**Protodynastic Period**](http://en.wikipedia.org/wiki/Protodynastic_Period_of_Egypt) |
| [**Early Dynastic Period**](http://en.wikipedia.org/wiki/Early_Dynastic_Period_of_Egypt) |
| [**Old Kingdom**](http://en.wikipedia.org/wiki/Old_Kingdom) |
| [**First Intermediate Period**](http://en.wikipedia.org/wiki/First_Intermediate_Period_of_Egypt) |
| [**Middle Kingdom**](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt) |
| [**Second Intermediate Period**](http://en.wikipedia.org/wiki/Second_Intermediate_Period_of_Egypt) |
| [**New Kingdom**](http://en.wikipedia.org/wiki/New_Kingdom) |
| [**Third Intermediate Period**](http://en.wikipedia.org/wiki/Third_Intermediate_Period_of_Egypt) |
| [**First Persian Period**](http://en.wikipedia.org/wiki/History_of_Achaemenid_Egypt) |
| [**Late Period**](http://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt) |
| [**Second Persian Period**](http://en.wikipedia.org/wiki/History_of_Achaemenid_Egypt) |
| [**Ptolemaic Dynasty**](http://en.wikipedia.org/wiki/Ptolemaic_dynasty_of_Egypt) |

**Ancient Egypt** was an [ancient](http://en.wikipedia.org/wiki/Ancient_history) [civilization](http://en.wikipedia.org/wiki/Civilization) of Northeastern Africa, concentrated along the lower reaches of the [Nile River](http://en.wikipedia.org/wiki/Nile) in what is now the modern country of [Egypt](http://en.wikipedia.org/wiki/Egypt). Egyptian civilization coalesced around 3150 BC (according to [conventional Egyptian chronology](http://en.wikipedia.org/wiki/Conventional_Egyptian_chronology)) with the political unification of [Upper and Lower Egypt](http://en.wikipedia.org/wiki/Upper_and_Lower_Egypt) under the first [pharaoh](http://en.wikipedia.org/wiki/Pharaoh). The [history of ancient Egypt](http://en.wikipedia.org/wiki/History_of_ancient_Egypt) occurred in a series of stable *Kingdoms*, separated by periods of relative instability known as *Intermediate Periods*: the [Old Kingdom](http://en.wikipedia.org/wiki/Old_Kingdom) of the [Early Bronze Age](http://en.wikipedia.org/wiki/Early_Bronze_Age), the [Middle Kingdom](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt) of the [Middle Bronze Age](http://en.wikipedia.org/wiki/Middle_Bronze_Age) and the [New Kingdom](http://en.wikipedia.org/wiki/New_Kingdom) of the [Late Bronze Age](http://en.wikipedia.org/wiki/Late_Bronze_Age).

Egypt reached the pinnacle of its power during the New Kingdom, in the Ramesside period where it rivalled the [Hittite Empire](http://en.wikipedia.org/wiki/Hittite_Empire), [Assyrian Empire](http://en.wikipedia.org/wiki/Assyrian_Empire) and [Mitanni](http://en.wikipedia.org/wiki/Mitanni) [Empire](http://en.wikipedia.org/wiki/Empire), after which it entered a period of slow decline. Egypt was invaded or conquered by a succession of foreign powers (such as the [Canaanites](http://en.wikipedia.org/wiki/Canaanites)/[Hyksos](http://en.wikipedia.org/wiki/Hyksos), [Libyans](http://en.wikipedia.org/wiki/Ancient_Libya), [Nubians](http://en.wikipedia.org/wiki/Nubians), [Assyria](http://en.wikipedia.org/wiki/Assyria), [Babylonia](http://en.wikipedia.org/wiki/Babylonia), [Persian rule](http://en.wikipedia.org/wiki/History_of_Achaemenid_Egypt) and [Macedonian](http://en.wikipedia.org/wiki/Macedon) [Greece](http://en.wikipedia.org/wiki/Greece)) in the [Third Intermediate Period of Egypt](http://en.wikipedia.org/wiki/Third_Intermediate_Period_of_Egypt) and [Late Period](http://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt). In the aftermath of [Alexander the Great](http://en.wikipedia.org/wiki/Alexander_the_Great)'s death, one of his generals, [Ptolemy Soter](http://en.wikipedia.org/wiki/Ptolemy_Soter), established himself as the new ruler of Egypt. This [Greek](http://en.wikipedia.org/wiki/Greece) [Ptolemaic Dynasty](http://en.wikipedia.org/wiki/Ptolemaic_Dynasty) ruled Egypt until 30 BC, when, under [Cleopatra](http://en.wikipedia.org/wiki/Cleopatra), it fell to the [Roman Empire](http://en.wikipedia.org/wiki/Roman_Empire) and became [a Roman province](http://en.wikipedia.org/wiki/Egypt_%28Roman_province%29).

The success of ancient Egyptian civilization came partly from its ability to adapt to the conditions of the Nile River Valley. The predictable flooding and controlled [irrigation](http://en.wikipedia.org/wiki/Irrigation) of the fertile valley produced surplus crops, which fueled [social development](http://en.wikipedia.org/wiki/Social_development) and culture. With resources to spare, the [administration](http://en.wikipedia.org/wiki/Administration_%28government%29) sponsored mineral exploitation of the valley and surrounding desert regions, the early development of an independent [writing system](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs), the organization of collective construction and agricultural projects, trade with surrounding regions, and a military intended to [defeat foreign enemies](http://en.wikipedia.org/wiki/Military_history_of_Ancient_Egypt) and assert Egyptian dominance. Motivating and organizing these activities was a bureaucracy of elite [scribes](http://en.wikipedia.org/wiki/Egyptian_writing), religious leaders, and administrators under the control of a Pharaoh who ensured the cooperation and unity of the Egyptian people in the context of an elaborate system of [religious beliefs](http://en.wikipedia.org/wiki/Ancient_Egyptian_religion).

The many achievements of the ancient Egyptians include the quarrying, surveying and construction techniques that facilitated the building of monumental [pyramids](http://en.wikipedia.org/wiki/Egyptian_pyramids), [temples](http://en.wikipedia.org/wiki/Egyptian_temple), and [obelisks](http://en.wikipedia.org/wiki/Obelisk); a system of [mathematics](http://en.wikipedia.org/wiki/Egyptian_mathematics), a practical and effective [system of medicine](http://en.wikipedia.org/wiki/Ancient_Egyptian_medicine), irrigation systems and agricultural production techniques, the first known ships, [Egyptian faience](http://en.wikipedia.org/wiki/Egyptian_faience) and glass technology, new forms of [literature](http://en.wikipedia.org/wiki/Ancient_Egyptian_literature), and the [earliest known peace treaty](http://en.wikipedia.org/wiki/Egyptian%E2%80%93Hittite_peace_treaty) with [Hittites](http://en.wikipedia.org/wiki/Hittites). Egypt left a lasting legacy. Its [art](http://en.wikipedia.org/wiki/Art_of_ancient_Egypt) and [architecture](http://en.wikipedia.org/wiki/Ancient_Egyptian_architecture) were widely copied, and its antiquities carried off to far corners of the world. Its monumental ruins have inspired the imaginations of travelers and writers for centuries. A new-found respect for antiquities and excavations in the early modern period led to the [scientific investigation](http://en.wikipedia.org/wiki/Egyptology) of Egyptian civilization and a greater appreciation of its cultural legacy.

Map of ancient Egypt, showing major cities and sites of the Dynastic period (c. 3150 BC to 30 BC).

Main articles: [History of ancient Egypt](http://en.wikipedia.org/wiki/History_of_ancient_Egypt), [History of Egypt](http://en.wikipedia.org/wiki/History_of_Egypt), and [Population history of Egypt](http://en.wikipedia.org/wiki/Population_history_of_Egypt)

**History**

The [Nile](http://en.wikipedia.org/wiki/Nile) has been the lifeline of its region for much of human history. The fertile floodplain of the Nile gave humans the opportunity to develop a settled agricultural economy and a more sophisticated, centralized society that became a cornerstone in the history of human civilization. Nomadic [modern human](http://en.wikipedia.org/wiki/Anatomically_modern_humans) [hunter-gatherers](http://en.wikipedia.org/wiki/Hunter-gatherer) began living in the Nile valley through the end of the [Middle Pleistocene](http://en.wikipedia.org/wiki/Pleistocene) some 120 thousand years ago. By the late [Paleolithic](http://en.wikipedia.org/wiki/Paleolithic) period, the arid climate of Northern Africa became increasingly hot and dry, forcing the populations of the area to concentrate along the region.

**Predynastic period**

Main article: [Predynastic Egypt](http://en.wikipedia.org/wiki/Predynastic_Egypt)

A typical Naqada II jar decorated with gazelles. (Predynastic Period)

In Predynastic and [Early Dynastic](http://en.wikipedia.org/wiki/Early_Dynastic_Period_of_Egypt) times, the Egyptian climate was much less arid than it is today. Large regions of Egypt were covered in treed [savanna](http://en.wikipedia.org/wiki/Savanna) and traversed by herds of grazing [ungulates](http://en.wikipedia.org/wiki/Ungulates). Foliage and fauna were far more prolific in all environs and the Nile region supported large populations of waterfowl. Hunting would have been common for Egyptians, and this is also the period when many animals were first [domesticated](http://en.wikipedia.org/wiki/Domestication).

By about [5500 BC](http://en.wikipedia.org/wiki/6th_millennium_BC), small tribes living in the Nile valley had developed into a series of cultures demonstrating firm control of agriculture and [animal husbandry](http://en.wikipedia.org/wiki/Animal_husbandry), and identifiable by their pottery and personal items, such as combs, bracelets, and beads. The largest of these early cultures in upper (Southern) Egypt, the [Badari](http://en.wikipedia.org/wiki/Badari) which probably originated in the Western Desert, was known for its high quality ceramics, [stone tools](http://en.wikipedia.org/wiki/Stone_tool), and its use of copper.

The Badari was followed by the [Amratian](http://en.wikipedia.org/wiki/Amratian_culture) (Naqada I) and [Gerzeh](http://en.wikipedia.org/wiki/Gerzeh_culture) (Naqada II) cultures, which brought a number of technological improvements. As early as the Naqada I Period, predynastic Egyptians imported [obsidian](http://en.wikipedia.org/wiki/Obsidian) from [Ethiopia](http://en.wikipedia.org/wiki/History_of_Ethiopia), used to shape blades and other objects from [flakes](http://en.wikipedia.org/wiki/Lithic_flake). In Naqada II times, early evidence exists of contact with the [Near East](http://en.wikipedia.org/wiki/Near_East), particularly [Canaan](http://en.wikipedia.org/wiki/Canaan) and the [Byblos](http://en.wikipedia.org/wiki/Byblos) coast. Over a period of about 1,000 years, the Naqada culture developed from a few small farming communities into a powerful civilization whose leaders were in complete control of the people and resources of the Nile valley. Establishing a power center at [Hierakonpolis](http://en.wikipedia.org/wiki/Nekhen), and later at [Abydos](http://en.wikipedia.org/wiki/Abydos%2C_Egypt), Naqada III leaders expanded their control of Egypt northwards along the [Nile](http://en.wikipedia.org/wiki/Nile_Delta). They also traded with [Nubia](http://en.wikipedia.org/wiki/Nubia) to the south, the oases of the [western desert](http://en.wikipedia.org/wiki/Libyan_Desert) to the west, and the cultures of the [eastern Mediterranean](http://en.wikipedia.org/wiki/Eastern_Mediterranean) and [Near East](http://en.wikipedia.org/wiki/Near_East) to the east. Royal Nubian burials at Qustul produced artifacts bearing the oldest known examples of Egyptian dynastic symbols, such as the white crown of Egypt and falcon.

The Naqada culture manufactured a diverse selection of material goods, reflective of the increasing power and wealth of the elite, as well as societal personal-use items, which included combs, small statuary, painted pottery, high quality [decorative stone vases](http://en.wikipedia.org/wiki/Hand_drill_%28hieroglyph%29), [cosmetic palettes](http://en.wikipedia.org/wiki/Cosmetic_palette), and jewelry made of gold, lapis, and ivory. They also developed a [ceramic glaze](http://en.wikipedia.org/wiki/Ceramic_glaze) known as [faience](http://en.wikipedia.org/wiki/Egyptian_faience), which was used well into the Roman Period to decorate cups, amulets, and figurines. During the last predynastic phase, the Naqada culture began using written symbols that eventually evolved into a full system of [hieroglyphs](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) for writing the ancient Egyptian language.

**Early Dynastic Period (c. 3050 –2686 BC)**

Main article: [Early Dynastic Period of Egypt](http://en.wikipedia.org/wiki/Early_Dynastic_Period_of_Egypt)

The Early Dynastic Period was approximately contemporary to the early [Sumerian](http://en.wikipedia.org/wiki/Sumer)-[Akkadian](http://en.wikipedia.org/wiki/Akkadian) civilization of [Mesopotamia](http://en.wikipedia.org/wiki/Mesopotamia) and of ancient [Elam](http://en.wikipedia.org/wiki/Elam). The 3rd-century BC Egyptian priest [Manetho](http://en.wikipedia.org/wiki/Manetho) grouped the long line of pharaohs from Menes to his own time into 30 dynasties, a system still used today. He chose to begin his official history with the king named "Meni" (or [Menes](http://en.wikipedia.org/wiki/Menes) in Greek) who was then believed to have united the two kingdoms of [Upper](http://en.wikipedia.org/wiki/Upper_Egypt) and [Lower Egypt](http://en.wikipedia.org/wiki/Lower_Egypt) (around 3100 BC).

The transition to a unified state actually happened more gradually than ancient Egyptian writers would have us believe, and there is no contemporary record of Menes. Some scholars now believe, however, that the mythical Menes may have actually been the pharaoh [Narmer](http://en.wikipedia.org/wiki/Narmer), who is depicted wearing [royal regalia](http://en.wikipedia.org/wiki/Regalia) on the ceremonial Narmer Palette in a symbolic act of unification. In the Early Dynastic Period about 3150 BC, the first of the Dynastic pharaohs solidified their control over lower Egypt by establishing a capital at [Memphis](http://en.wikipedia.org/wiki/Memphis%2C_Egypt), from which they could control the [labor force](http://en.wikipedia.org/wiki/Labour_force) and agriculture of the fertile delta region as well as the lucrative and critical [trade routes](http://en.wikipedia.org/wiki/Trade_route) to the [Levant](http://en.wikipedia.org/wiki/Levant). The increasing power and wealth of the pharaohs during the early dynastic period was reflected in their elaborate [mastaba](http://en.wikipedia.org/wiki/Mastaba) tombs and mortuary cult structures at Abydos, which were used to celebrate the deified pharaoh after his death. The strong institution of kingship developed by the pharaohs served to legitimize state control over the land, labor, and resources that were essential to the survival and growth of ancient Egyptian civilization.

The [Narmer Palette](http://en.wikipedia.org/wiki/Narmer_Palette) depicts the unification of the Two Lands.

**Old Kingdom (2686–2181 BC)**

Main article: [Old Kingdom](http://en.wikipedia.org/wiki/Old_Kingdom)

The Giza Pyramids

Major advances in architecture, art, and technology were made during the [Old Kingdom](http://en.wikipedia.org/wiki/Old_Kingdom), fueled by the increased [agricultural productivity](http://en.wikipedia.org/wiki/Agricultural_productivity) made possible by a well-developed central administration. Some of Ancient Egypt's crowning achievements, the [Giza pyramids](http://en.wikipedia.org/wiki/Giza_Necropolis) and [Great Sphinx](http://en.wikipedia.org/wiki/Great_Sphinx_of_Giza), were constructed during the Old Kingdom. Under the direction of the [vizier](http://en.wikipedia.org/wiki/Vizier_%28Ancient_Egypt%29), state officials collected taxes, coordinated irrigation projects to improve [crop yield](http://en.wikipedia.org/wiki/Crop_yield), drafted peasants to work on construction projects, and established a [justice system](http://en.wikipedia.org/wiki/Criminal_law) to maintain peace and order.

Khafre Enthroned

Along with the rising importance of a central administration arose a new class of educated scribes and officials who were granted estates by the pharaoh in payment for their services. Pharaohs also made land grants to their mortuary cults and local temples to ensure that these institutions had the resources to worship the pharaoh after his death. It is believed that five centuries of these practices slowly eroded the economic power of the pharaoh, and that the economy could no longer afford to support a large centralized administration. As the power of the pharaoh diminished, regional governors called [nomarchs](http://en.wikipedia.org/wiki/Nomarch) began to challenge the supremacy of the pharaoh. This, coupled with [severe droughts](http://en.wikipedia.org/wiki/4.2_kiloyear_event) between 2200 and 2150 BC, is assumed to have caused the country to enter the 140-year period of famine and strife known as the First Intermediate Period.

**First Intermediate Period (2181–1991 BC)**

Main article: [First Intermediate Period of Egypt](http://en.wikipedia.org/wiki/First_Intermediate_Period_of_Egypt)

After Egypt's [central government](http://en.wikipedia.org/wiki/Central_government) collapsed at the end of the Old Kingdom, the administration could no longer support or stabilize the country's economy. Regional governors could not rely on the king for help in times of crisis, and the ensuing food shortages and political disputes escalated into famines and small-scale civil wars. Yet despite difficult problems, local leaders, owing no tribute to the pharaoh, used their newfound independence to establish a thriving culture in the provinces. Once in control of their own resources, the provinces became economically richer—a fact demonstrated by larger and better burials among all social classes. In bursts of creativity, provincial artisans adopted and adapted cultural motifs formerly restricted to the royalty of the Old Kingdom, and scribes developed literary styles that expressed the [optimism](http://en.wikipedia.org/wiki/Optimism) and originality of the period.

Free from their loyalties to the pharaoh, local rulers began competing with each other for territorial control and [political power](http://en.wikipedia.org/wiki/Political_power). By 2160 BC, rulers in [Herakleopolis](http://en.wikipedia.org/wiki/Herakleopolis) controlled Lower Egypt in the north, while a rival clan based in [Thebes](http://en.wikipedia.org/wiki/Thebes%2C_Egypt), the [Intef family](http://en.wikipedia.org/wiki/Intef_I), took control of Upper Egypt in the south. As the Intefs grew in power and expanded their control northward, a clash between the two rival dynasties became inevitable. Around 2055 BC the northern Theban forces under [Nebhepetre Mentuhotep II](http://en.wikipedia.org/wiki/Mentuhotep_II) finally defeated the Herakleopolitan rulers, reuniting the Two Lands and inaugurating a period of economic and cultural renaissance known as the [Middle Kingdom](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt).

**Middle Kingdom (2134–1690 BC)**

Main article: [Middle Kingdom of Egypt](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt)

Amenemhat III, the last great ruler of the Middle Kingdom

The pharaohs of the Middle Kingdom restored the country's prosperity and stability, thereby stimulating a resurgence of art, literature, and monumental building projects. Mentuhotep II and his 11th Dynasty successors ruled from Thebes, but the vizier [Amenemhat I](http://en.wikipedia.org/wiki/Amenemhat_I), upon assuming kingship at the beginning of the [12th Dynasty](http://en.wikipedia.org/wiki/Twelfth_dynasty_of_Egypt) around 1985 BC, shifted the nation's capital to the city of [Itjtawy](http://en.wikipedia.org/wiki/Itjtawy) located in [Faiyum](http://en.wikipedia.org/wiki/Faiyum_Oasis). From Itjtawy, the pharaohs of the 12th Dynasty undertook a far-sighted [land reclamation](http://en.wikipedia.org/wiki/Land_reclamation) and irrigation scheme to increase agricultural output in the region. Moreover, the military reconquered territory in Nubia rich in quarries and gold mines, while laborers built a defensive structure in the Eastern Delta, called the "[Walls-of-the-Ruler](http://en.wikipedia.org/wiki/Walls-of-the-Ruler)", to defend against foreign attack.

Having secured military and political security and vast agricultural and mineral wealth, the nation's population, arts, and religion flourished. In contrast to elitist Old Kingdom attitudes towards the gods, the Middle Kingdom experienced an increase in expressions of personal piety and what could be called a [democratization](http://en.wikipedia.org/wiki/Democratization) of the afterlife, in which all people possessed a soul and could be welcomed into the company of the gods after death. [Middle Kingdom](http://en.wikipedia.org/wiki/Middle_Kingdom_of_Egypt) literature featured sophisticated themes and characters written in a confident, eloquent style, and the [relief](http://en.wikipedia.org/wiki/Relief) and portrait sculpture of the period captured subtle, individual details that reached new heights of technical perfection.

The last great ruler of the Middle Kingdom, [Amenemhat III](http://en.wikipedia.org/wiki/Amenemhat_III), allowed [Semitic](http://en.wikipedia.org/wiki/Semitic) speaking [Canaanite](http://en.wikipedia.org/wiki/Canaan) settlers from the [Near East](http://en.wikipedia.org/wiki/Near_East) into the delta region to provide a sufficient labor force for his especially active mining and building campaigns. These ambitious building and mining activities, however, combined with severe [Nile floods](http://en.wikipedia.org/wiki/Flooding_of_the_Nile) later in his reign, strained the economy and precipitated the slow decline into the Second Intermediate Period during the later 13th and 14th dynasties. During this decline, the [Canaanite](http://en.wikipedia.org/wiki/Canaan) settlers began to seize control of the delta region, eventually coming to power in Egypt as the [Hyksos](http://en.wikipedia.org/wiki/Hyksos).

**Second Intermediate Period (1674–1549 BC) and the Hyksos**

Main article: [Second Intermediate Period of Egypt](http://en.wikipedia.org/wiki/Second_Intermediate_Period_of_Egypt)

Around 1785 BC, as the power of the Middle Kingdom pharaohs weakened, a [Semitic](http://en.wikipedia.org/wiki/Semitic) [Canaanite](http://en.wikipedia.org/wiki/Canaan) people called the [Hyksos](http://en.wikipedia.org/wiki/Hyksos) had already settled in the Eastern Delta town of [Avaris](http://en.wikipedia.org/wiki/Avaris), seized control of Egypt, and forced the central government to retreat to Thebes, where the pharaoh was treated as a vassal and expected to pay tribute. The Hyksos ("foreign rulers") retained Egyptian models of government and portrayed themselves as pharaohs, thus integrating Egyptian elements into their culture. They and other Semitic invaders introduced new tools of warfare into Egypt, most notably the [composite bow](http://en.wikipedia.org/wiki/Composite_bow) and the horse-drawn [chariot](http://en.wikipedia.org/wiki/Chariot).

After their retreat, the native Theban kings found themselves trapped between the Canaanite Hyksos ruling the north and the Hyksos' [Nubian](http://en.wikipedia.org/wiki/Nubian_people) allies, the [Kushites](http://en.wikipedia.org/wiki/Kingdom_of_Kush), to the south of Egypt. After years of vassalage, Thebes gathered enough strength to challenge the Hyksos in a conflict that lasted more than 30 years, until 1555 BC The pharaohs [Seqenenre Tao II](http://en.wikipedia.org/wiki/Seqenenre_Tao_II) and [Kamose](http://en.wikipedia.org/wiki/Kamose) were ultimately able to defeat the [Nubians](http://en.wikipedia.org/wiki/Nubians) to the south of Egypt, but failed to defeat the Hyksos. That task fell to Kamose's successor, [Ahmose I](http://en.wikipedia.org/wiki/Ahmose_I), who successfully waged a series of campaigns that permanently eradicated the Hyksos' presence in Egypt. He established a new dynasty. In the New Kingdom that followed, the military became a central priority for the pharaohs seeking to expand Egypt's borders and attempting to gain mastery of the [Near East](http://en.wikipedia.org/wiki/Near_East).

The maximum territorial extent of Ancient Egypt (15th century BC)

**New Kingdom (1549–1069 BC)**

Main article: [New Kingdom](http://en.wikipedia.org/wiki/New_Kingdom)

The New Kingdom pharaohs established a period of unprecedented prosperity by securing their borders and strengthening diplomatic ties with their neighbors, including the [Mitanni](http://en.wikipedia.org/wiki/Mitanni) Empire, [Assyria](http://en.wikipedia.org/wiki/Assyria), and [Canaan](http://en.wikipedia.org/wiki/Canaan). Military campaigns waged under [Tuthmosis I](http://en.wikipedia.org/wiki/Thutmose_I) and his grandson [Tuthmosis III](http://en.wikipedia.org/wiki/Thutmose_III) extended the influence of the pharaohs to the largest empire Egypt had ever seen. Between their reigns, Hatshepsut generally promoted peace and extended trade routes back to those lost during the Hyksos occupation, as well as venturing to new regions. When Tuthmosis III died in 1425 BC, Egypt had an empire extending from [Niya](http://en.wikipedia.org/wiki/Niya_%28kingdom%29) in north west [Syria](http://en.wikipedia.org/wiki/Syria) to the fourth waterfall of the Nile in [Nubia](http://en.wikipedia.org/wiki/Nubia), cementing loyalties and opening access to critical imports such as [bronze](http://en.wikipedia.org/wiki/Bronze) and [wood](http://en.wikipedia.org/wiki/Wood).

*Djeser-Djeseru* is the main building of Hatshepsut's [mortuary temple](http://en.wikipedia.org/wiki/Mortuary_temple) complex at [Deir el-Bahri](http://en.wikipedia.org/wiki/Deir_el-Bahri), the building is an example of perfect [symmetry](http://en.wikipedia.org/wiki/Symmetry) that predates the [Parthenon](http://en.wikipedia.org/wiki/Parthenon) by a thousand years

The New Kingdom pharaohs began a large-scale building campaign to promote the god [Amun](http://en.wikipedia.org/wiki/Amun), whose growing cult was based in [Karnak](http://en.wikipedia.org/wiki/Karnak). They also constructed monuments to glorify their own achievements, both real and imagined. The pharaoh [Hatshepsut](http://en.wikipedia.org/wiki/Hatshepsut) used such hyperbole and grandeur during her reign of almost twenty-two years. Her reign was very successful, marked by an extended period of peace and wealth-building, trading expeditions to [Punt](http://en.wikipedia.org/wiki/Land_of_Punt), restoration of foreign trade networks, great building projects including an elegant [mortuary temple](http://en.wikipedia.org/wiki/Mortuary_temple) that rivaled the Greek architecture of a thousand years later, a colossal pair of obelisks, and a chapel at Karnak. Despite her achievements, the heir to Hatshepsut's nephew-stepson Tuthmosis III, Amenhotep II, sought to erase her legacy near the end of his father's reign and throughout his, touting many of her accomplishments as his. He also attempted to change many established traditions that had developed over the centuries, which some suggest was a futile attempt to prevent other women from becoming pharaoh and to curb their influence in the kingdom.

Around 1350 BC, the stability of the New Kingdom seemed threatened further when Amenhotep IV ascended the throne and instituted a series of radical and chaotic reforms. Changing his name to [Akhenaten](http://en.wikipedia.org/wiki/Akhenaten), he touted the previously obscure [sun deity](http://en.wikipedia.org/wiki/Solar_deity) [Aten](http://en.wikipedia.org/wiki/Aten) as the [supreme deity](http://en.wikipedia.org/wiki/God), suppressed the worship of most other deities and attacked the power of the temple that had become dominated by the priests of Amun in Thebes, whom he saw as corrupt. Moving the capital to the new city of Akhetaten (modern-day [Amarna](http://en.wikipedia.org/wiki/Amarna)), Akhenaten turned a deaf ear to events in the [Near East](http://en.wikipedia.org/wiki/Near_East) (where the [Hittites](http://en.wikipedia.org/wiki/Hittites), [Mitanni](http://en.wikipedia.org/wiki/Mitanni), and [Assyrians](http://en.wikipedia.org/wiki/Assyrians) were vying for control) and absorbed himself in his new religion and artistic style. After his death, the cult of the Aten was quickly abandoned, the priests of Amun soon regained power and returned the capital to Thebes, and under their influence the subsequent pharaohs [Tutankhamun](http://en.wikipedia.org/wiki/Tutankhamun), [Ay](http://en.wikipedia.org/wiki/Ay), and [Horemheb](http://en.wikipedia.org/wiki/Horemheb) attempted to erase all mention of Akhenaten's heresy, now known as the [Amarna Period](http://en.wikipedia.org/wiki/Amarna_Period).

Four colossal statues of [Ramesses II](http://en.wikipedia.org/wiki/Ramesses_II) flank the entrance of his temple [Abu Simbel](http://en.wikipedia.org/wiki/Abu_Simbel)

Around 1279 BC, [Ramesses II](http://en.wikipedia.org/wiki/Ramesses_II), also known as Ramesses the Great, ascended the throne, and went on to build more temples, erect more statues and obelisks, and sire more children than any other pharaoh in history. A bold military leader, Ramesses II led his army against the [Hittites](http://en.wikipedia.org/wiki/Hittites) in the [Battle of Kadesh](http://en.wikipedia.org/wiki/Battle_of_Kadesh) (in modern [Syria](http://en.wikipedia.org/wiki/Syria)) and, after fighting to a stalemate, finally agreed to the first recorded peace treaty, around 1258 BC. With both the Egyptians and [Hittite Empire](http://en.wikipedia.org/wiki/Hittite_Empire) proving unable to gain the upper hand over one another, and both powers also fearful of the expanding [Middle Assyrian Empire](http://en.wikipedia.org/wiki/Middle_Assyrian_Empire), [Egypt](http://en.wikipedia.org/wiki/Egypt) withdraw from much of the [Near East](http://en.wikipedia.org/wiki/Near_East). The [Hittites](http://en.wikipedia.org/wiki/Hittites) were thus left to compete unsuccessfully with the powerful [Assyrians](http://en.wikipedia.org/wiki/Assyrians) and the newly arrived [Phrygians](http://en.wikipedia.org/wiki/Phrygians).

Egypt's wealth, however, made it a tempting target for invasion, particularly by the [Libyan](http://en.wikipedia.org/wiki/Ancient_Libya) [Berbers](http://en.wikipedia.org/wiki/Berber_people) to the west, and the [Sea Peoples](http://en.wikipedia.org/wiki/Sea_Peoples), a powerful confederation of largely [Greek](http://en.wikipedia.org/wiki/Greeks), [Luwian](http://en.wikipedia.org/wiki/Luwian) and [Phoenician](http://en.wikipedia.org/wiki/Phoenicia)/[Caananite](http://en.wikipedia.org/wiki/Caananite) pirates from the [Aegean](http://en.wikipedia.org/wiki/Aegean_Sea). Initially, the military was able to repel these invasions, but Egypt eventually lost control of its remaining territories in southern [Caanan](http://en.wikipedia.org/wiki/Caanan), much of it falling to the [Assyrians](http://en.wikipedia.org/wiki/Assyrians). The impact of external threats was exacerbated by internal problems such as corruption, tomb robbery, and civil unrest. After regaining their power, the high priests at the [temple of Amun](http://en.wikipedia.org/wiki/Precinct_of_Amun-Re) in Thebes accumulated vast tracts of land and wealth and their expanded power splintered the country during the Third Intermediate Period.

**Third Intermediate Period (1069–653 BC)**

Main article: [Third Intermediate Period of Egypt](http://en.wikipedia.org/wiki/Third_Intermediate_Period_of_Egypt)

Following the death of [Ramesses XI](http://en.wikipedia.org/wiki/Ramesses_XI) in 1078 BC, [Smendes](http://en.wikipedia.org/wiki/Smendes) assumed authority over the northern part of Egypt, ruling from the city of [Tanis](http://en.wikipedia.org/wiki/Tanis%2C_Egypt). The south was effectively controlled by the [High Priests of Amun at Thebes](http://en.wikipedia.org/wiki/Theban_High_Priests_of_Amun_%2821st_and_22nd_Dynasty%29), who recognized Smendes in name only. During this time, [Berber](http://en.wikipedia.org/wiki/Berber_people) tribes from what was later to be called [Libya](http://en.wikipedia.org/wiki/Libya) had been settling in the western delta and the chieftains of these settlers began increasing their autonomy. Libyan princes took control of the delta under [Shoshenq I](http://en.wikipedia.org/wiki/Shoshenq_I) in 945 BC, founding the so-called [Libyan](http://en.wikipedia.org/wiki/Libyan) [Berber](http://en.wikipedia.org/wiki/Berber_people), or [Bubastite](http://en.wikipedia.org/wiki/Bubastite), dynasty that ruled for some 200 years. Shoshenq also gained control of southern Egypt by placing his family members in important priestly positions.

In the mid-9th century BC, Egypt made a failed attempt to once more gain a foothold in [Western Asia](http://en.wikipedia.org/wiki/Western_Asia). [Osorkon II](http://en.wikipedia.org/wiki/Osorkon_II) of Egypt, along with a large alliance of nations and peoples, including; [Israel](http://en.wikipedia.org/wiki/Israel), [Hamath](http://en.wikipedia.org/wiki/Hamath), [Phoenicia](http://en.wikipedia.org/wiki/Phoenicia)/[Caanan](http://en.wikipedia.org/wiki/Caanan), the [Arabs](http://en.wikipedia.org/wiki/Arabs), [Arameans](http://en.wikipedia.org/wiki/Arameans), and neo [Hittites](http://en.wikipedia.org/wiki/Hittites) among others engaged in the [Battle of Karkar](http://en.wikipedia.org/wiki/Battle_of_Karkar) against the powerful [Assyrian](http://en.wikipedia.org/wiki/Assyria) king [Shalmaneser III](http://en.wikipedia.org/wiki/Shalmaneser_III) in 853 BC, however this coalition of powers failed, and the [Assyrian Empire](http://en.wikipedia.org/wiki/Assyrian_Empire) continued to dominate the region.

Libyan Berber control began to erode as a rival native dynasty in the delta arose in [Leontopolis](http://en.wikipedia.org/wiki/Leontopolis). Also, the [Nubians](http://en.wikipedia.org/wiki/Nubians) of the [Kushites](http://en.wikipedia.org/wiki/Kingdom_of_Kush) threatened Egypt from the lands to the south.

Around 730 BC Libyans from the west fractured the political unity of the country

Drawing on millennia of interaction (trade, acculturation, occupation, assimilation, and war) with Egypt, the Kushite king [Piye](http://en.wikipedia.org/wiki/Piye) left his [Nubian](http://en.wikipedia.org/wiki/Nubian_people) capital of [Napata](http://en.wikipedia.org/wiki/Napata) and invaded [Egypt](http://en.wikipedia.org/wiki/Egypt) around 727 BC. Piye easily seized control of [Thebes](http://en.wikipedia.org/wiki/Thebes%2C_Egypt) and eventually the [Nile Delta](http://en.wikipedia.org/wiki/Nile_Delta). He recorded the episode on his stela of victory. Piye set the stage for subsequent [25th dynasty](http://en.wikipedia.org/wiki/Twenty-fifth_dynasty_of_Egypt) pharaohs, such as [Taharqa](http://en.wikipedia.org/wiki/Taharqa), to reunite the "Two lands" of Northern and Southern Egypt. The Nile valley empire was as large as it had been since the New Kingdom. The 25th dynasty ushered in a renaissance period for Ancient Egypt. Religion, the arts, and architecture were restored to their glorious Old, Middle, and New Kingdom forms. Pharaohs, such as Taharqa, built or restored temples and monuments throughout the Nile valley, including at Memphis, Karnak, Kawa, Jebel Barkal, etc. It was during the 25th dynasty that the Nile valley saw the first widespread construction of pyramids (many in modern Sudan) since the Middle Kingdom.

Piye made various unsuccessful attempts to extend Egyptian influence in the [Near East](http://en.wikipedia.org/wiki/Near_East), then controlled by [Assyria](http://en.wikipedia.org/wiki/Assyria). In 720 BC he sent an army in support a rebellion against Assyria in [Philistia](http://en.wikipedia.org/wiki/Philistia) and [Gaza](http://en.wikipedia.org/wiki/Gaza), however Piye was defeated by [Sargon II](http://en.wikipedia.org/wiki/Sargon_II), and the rebellion failed. In 711 BC [Piye](http://en.wikipedia.org/wiki/Piye) again supported a revolt against the [Assyrians](http://en.wikipedia.org/wiki/Assyrians) by the [Israelites](http://en.wikipedia.org/wiki/Israelites) of [Ashdod](http://en.wikipedia.org/wiki/Ashdod), and was once again defeated by the Assyrian king [Sargon II](http://en.wikipedia.org/wiki/Sargon_II), and [Piye](http://en.wikipedia.org/wiki/Piye) was forced from the [Near East](http://en.wikipedia.org/wiki/Near_East).

Egypt's international prestige declined considerably towards the end of the Third Intermediate Period. From the 10th century BC onwards, its allies in the Southern Levant had fallen to the [Assyrian Empire](http://en.wikipedia.org/wiki/Assyrian_Empire), and by 700 BC war between the two Empires became inevitable. Taharqa enjoyed some initial minor success in his attempts to regain a foothold in the Near East. He aided the [Judean](http://en.wikipedia.org/wiki/Judean) King [Hezekiah](http://en.wikipedia.org/wiki/Hezekiah) when the latter was attacked by Sennacherib, the Assyrian king, who was besieging [Jerusalem](http://en.wikipedia.org/wiki/Jerusalem) (2 Kings 19:9;Isaiah 37:9), however disease among the besiegers appears to have been the primary reason for failing to actually take the city, and Senacherib's annals claim Judah was forced into tribute regardless. Eventually however, the Assyrian King [Sennacherib](http://en.wikipedia.org/wiki/Sennacherib) defeated Taharqa and drove the Egyptians and Nubians from the [Near East](http://en.wikipedia.org/wiki/Near_East).

The Assyrians, tiring of Egyptian meddling in its empire, began their invasion of Egypt under king [Esarhaddon](http://en.wikipedia.org/wiki/Esarhaddon), successor of Sennacherib, who had been murdered by his own sons for destroying the rebellious city of [Babylon](http://en.wikipedia.org/wiki/Babylon). Taharqa was easily routed, and driven from power by Esarhaddon who conquered Egypt with surprising speed, thus destroying the [Kushite Empire](http://en.wikipedia.org/wiki/Kushite_Empire) in the process. Defeated, Taharqa fled back to his [Nubian](http://en.wikipedia.org/wiki/Nubia) homeland. Esarhaddon describes; "installing local kings and governors" and "All [Ethiopians](http://en.wikipedia.org/wiki/Ethiopians) ([Nubians](http://en.wikipedia.org/wiki/Nubians)/[Kushites](http://en.wikipedia.org/wiki/Kushites)) I deported from Egypt, leaving not one to do homage to me". However, the native rulers installed by Esarhaddon were unable to retain full control of the whole country for long. Two years later, Taharqa returned from Nubia and seized control of a section of southern Egypt as far north as [Memphis](http://en.wikipedia.org/wiki/Memphis). Esarhaddon prepared to return to Egypt and once more eject Taharqa, however he fell ill and died in his capital [Nineveh](http://en.wikipedia.org/wiki/Nineveh) before he left Assyria. His successor, [Ashurbanipal](http://en.wikipedia.org/wiki/Ashurbanipal), sent a general with a small but well trained army which defeated and ejected Taharqa from Memphis, and once more drove him from Egypt. Taharqa died in Nubia two years later.

His successor, [Tanutamun](http://en.wikipedia.org/wiki/Tantamani), also made a failed attempt to regain Egypt for Nubia. He successfully defeated [Necho](http://en.wikipedia.org/wiki/Necho_I), the puppet ruler installed by Ashurbanipal, taking [Thebes](http://en.wikipedia.org/wiki/Thebes%2C_Egypt) in the process. The Assyrians then sent a large army southwards. Tantamani (Tanutamun) was heavily routed and fled back to Nubia. The Assyrian army sacked Thebes to such an extent it never truly recovered. A native ruler, [Psammetichus I](http://en.wikipedia.org/wiki/Psammetichus_I) was placed on the throne, as a vassal of Ashurbanipal, and the Nubians were never again to pose a threat.

25th Dynasty

**Late Period (672–332 BC)**

Main articles: [Late Period of ancient Egypt](http://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt) and [History of Achaemenid Egypt](http://en.wikipedia.org/wiki/History_of_Achaemenid_Egypt)

With no permanent plans for conquest, the Assyrians left control of Egypt to a series of vassals who became known as the Saite kings of the [Twenty-Sixth Dynasty](http://en.wikipedia.org/wiki/Twenty-sixth_dynasty_of_Egypt). By 653 BC, the Saite king [Psamtik I](http://en.wikipedia.org/wiki/Psamtik_I) (taking advantage of the fact that Assyria was involved in a fierce war conquering [Elam](http://en.wikipedia.org/wiki/Elam) and that few Assyrian troops were stationed in Egypt) was able to free Egypt relatively peacefully from Assyrian vassalage with the help of [Lydian](http://en.wikipedia.org/wiki/Lydia) and [Greek](http://en.wikipedia.org/wiki/Greece) mercenaries, the latter of who were recruited to form Egypt's first navy. Psamtik and his successors however, were careful to maintain peaceful relations with Assyria. Greek influence expanded greatly as the city of [Naukratis](http://en.wikipedia.org/wiki/Naucratis) became the home of Greeks in the delta. In 609 BC [Necho II](http://en.wikipedia.org/wiki/Necho_II) went to war with [Babylonia](http://en.wikipedia.org/wiki/Babylonia), the [Chaldeans](http://en.wikipedia.org/wiki/Chaldean_people), the [Medians](http://en.wikipedia.org/wiki/Medians) and the [Scythians](http://en.wikipedia.org/wiki/Scythians) in an attempt to save Assyria, which after a brutal internal civil war was being overrun by this coalition of powers. However, the attempt to save Egypt’s former masters failed. The Egyptians delayed intervening too long, and [Nineveh](http://en.wikipedia.org/wiki/Nineveh) had already fallen and King [Sin-shar-ishkun](http://en.wikipedia.org/wiki/Sin-shar-ishkun) was dead by the time Necho II sent his armies northwards. However Necho easily brushed aside the [Israelite](http://en.wikipedia.org/wiki/Israelite) army under King [Josiah](http://en.wikipedia.org/wiki/Josiah) but he and the Assyrians then lost a battle at [Harran](http://en.wikipedia.org/wiki/Harran) to the Babylonians, Medes and Scythians. Necho II and [Ashur-uballit II](http://en.wikipedia.org/wiki/Ashur-uballit_II) of Assyria were finally defeated at [Carchemish](http://en.wikipedia.org/wiki/Carchemish) in [Aramea](http://en.wikipedia.org/wiki/Aramea) (modern [Syria](http://en.wikipedia.org/wiki/Syria)) in 605 BC. The Egyptians remained in the area for some decades, struggling with the [Babylonian](http://en.wikipedia.org/wiki/Babylonian) kings [Nabopolassar](http://en.wikipedia.org/wiki/Nabopolassar) and [Nebuchadnezzar II](http://en.wikipedia.org/wiki/Nebuchadnezzar_II) for control of portions of the former Assyrian Empire in [The Levant](http://en.wikipedia.org/wiki/The_Levant). However, they were eventually driven back into Egypt, and [Nebuchadnezzar II](http://en.wikipedia.org/wiki/Nebuchadnezzar_II) even briefly invaded [Egypt](http://en.wikipedia.org/wiki/Egypt) itself in 567 BC. The Saite kings based in the new capital of [Sais](http://en.wikipedia.org/wiki/Sais) witnessed a brief but spirited resurgence in the economy and culture, but in 525 BC, the powerful [Persians](http://en.wikipedia.org/wiki/Persia), led by [Cambyses II](http://en.wikipedia.org/wiki/Cambyses_II_of_Persia), began their conquest of Egypt, eventually capturing the pharaoh [Psamtik III](http://en.wikipedia.org/wiki/Psamtik_III) at the battle of [Pelusium](http://en.wikipedia.org/wiki/Pelusium). Cambyses II then assumed the formal title of pharaoh, but ruled Egypt from his home of [Susa](http://en.wikipedia.org/wiki/Susa) in Persia (modern [Iran](http://en.wikipedia.org/wiki/Iran)), leaving Egypt under the control of a satrapy. A few temporarily successful revolts against the Persians marked the 5th century BC, but Egypt was never able to permanently overthrow the Persians.

Following its annexation by [Persia](http://en.wikipedia.org/wiki/Persia), Egypt was joined with [Cyprus](http://en.wikipedia.org/wiki/Cyprus) and [Phoenicia](http://en.wikipedia.org/wiki/Phoenicia) (modern [Lebanon](http://en.wikipedia.org/wiki/Lebanon)) in the sixth [satrapy](http://en.wikipedia.org/wiki/Satrap) of the [Achaemenid Persian Empire](http://en.wikipedia.org/wiki/Achaemenid_Empire). This first period of Persian rule over Egypt, also known as the Twenty-Seventh dynasty, ended in 402 BC, and from 380–343 BC the [Thirtieth Dynasty](http://en.wikipedia.org/wiki/Thirtieth_dynasty_of_Egypt) ruled as the last native royal house of dynastic Egypt, which ended with the kingship of [Nectanebo II](http://en.wikipedia.org/wiki/Nectanebo_II). A brief restoration of Persian rule, sometimes known as the Thirty-First Dynasty, began in 343 BC, but shortly after, in 332 BC, the Persian ruler [Mazaces](http://en.wikipedia.org/w/index.php?title=Mazaces&action=edit&redlink=1) handed Egypt over to the [Macedonian](http://en.wikipedia.org/wiki/Ancient_Macedonians) ruler [Alexander the Great](http://en.wikipedia.org/wiki/Alexander_the_Great) without a fight.

**Ptolemaic dynasty**

Main articles: [History of Ptolemaic Egypt](http://en.wikipedia.org/wiki/History_of_Ptolemaic_Egypt) and [Ptolemaic dynasty](http://en.wikipedia.org/wiki/Ptolemaic_dynasty)

In 332 BC, [Alexander the Great](http://en.wikipedia.org/wiki/Alexander_the_Great) conquered Egypt with little resistance from the [Persians](http://en.wikipedia.org/wiki/Persia) and was welcomed by the Egyptians as a deliverer. The administration established by Alexander's successors, the [Macedonian](http://en.wikipedia.org/wiki/Ancient_Macedonians) [Ptolemaic dynasty](http://en.wikipedia.org/wiki/Ptolemaic_dynasty), was based on an Egyptian model and based in the new [capital city](http://en.wikipedia.org/wiki/Capital_%28political%29) of [Alexandria](http://en.wikipedia.org/wiki/Alexandria). The city showcased the power and prestige of Hellenistic rule, and became a [seat of learning](http://en.wikipedia.org/wiki/Seat_of_Wisdom) and culture, centered at the famous [Library of Alexandria](http://en.wikipedia.org/wiki/Library_of_Alexandria). The [Lighthouse of Alexandria](http://en.wikipedia.org/wiki/Lighthouse_of_Alexandria) lit the way for the many ships that kept trade flowing through the city—as the Ptolemies made commerce and revenue-generating enterprises, such as papyrus manufacturing, their top priority.

[Hellenistic culture](http://en.wikipedia.org/wiki/Hellenistic_civilization) did not supplant native Egyptian culture, as the Ptolemies supported time-honored traditions in an effort to secure the loyalty of the populace. They built new temples in Egyptian style, supported traditional cults, and portrayed themselves as pharaohs. Some traditions merged, as Greek and [Egyptian gods](http://en.wikipedia.org/wiki/Egyptian_mythology) were [syncretized](http://en.wikipedia.org/wiki/Syncretic_religion) into composite deities, such as [Serapis](http://en.wikipedia.org/wiki/Serapis), and [classical Greek](http://en.wikipedia.org/wiki/Ancient_Greek) forms of sculpture influenced traditional Egyptian motifs. Despite their efforts to appease the Egyptians, the Ptolemies were challenged by native rebellion, bitter family rivalries, and the powerful mob of Alexandria that formed after the death of [Ptolemy IV](http://en.wikipedia.org/wiki/Ptolemy_IV_Philopator). In addition, as [Rome](http://en.wikipedia.org/wiki/Ancient_Rome) relied more heavily on imports of grain from Egypt, the [Romans](http://en.wikipedia.org/wiki/Ancient_Rome) took great interest in the political situation in the country. Continued Egyptian revolts, ambitious politicians, and powerful [Syriac](http://en.wikipedia.org/wiki/Syriac) opponents from the [Near East](http://en.wikipedia.org/wiki/Near_East) made this situation unstable, leading Rome to send forces to secure the country as a province of its empire.

**Roman Period**

Main article: [History of Roman Egypt](http://en.wikipedia.org/wiki/History_of_Roman_Egypt)

The [Fayum mummy portraits](http://en.wikipedia.org/wiki/Fayum_mummy_portraits) epitomize the meeting of Egyptian and Roman cultures.

Egypt became a province of the [Roman Empire](http://en.wikipedia.org/wiki/Roman_Empire) in 30 BC, following the defeat of [Marc Antony](http://en.wikipedia.org/wiki/Mark_Antony) and [Ptolemaic](http://en.wikipedia.org/wiki/History_of_Ptolemaic_Egypt) Queen [Cleopatra VII](http://en.wikipedia.org/wiki/Cleopatra_VII) by [Octavian](http://en.wikipedia.org/wiki/Augustus) (later [Emperor](http://en.wikipedia.org/wiki/Roman_Emperor) Augustus) in the [Battle of Actium](http://en.wikipedia.org/wiki/Battle_of_Actium). The Romans relied heavily on grain shipments from Egypt, and the [Roman army](http://en.wikipedia.org/wiki/Roman_legion), under the control of a prefect appointed by the Emperor, quelled rebellions, strictly enforced the collection of heavy taxes, and prevented attacks by bandits, which had become a notorious problem during the period. Alexandria became an increasingly important center on the trade route with the orient, as exotic luxuries were in high demand in Rome.

Although the Romans had a more hostile attitude than the Greeks towards the Egyptians, some traditions such as mummification and worship of the traditional gods continued. The art of mummy portraiture flourished, and some of the Roman emperors had themselves depicted as pharaohs, though not to the extent that the Ptolemies had. The former lived outside Egypt and did not perform the ceremonial functions of Egyptian kingship. Local administration became Roman in style and closed to native [Egyptians](http://en.wikipedia.org/wiki/Egyptians).

From the mid-1st century, [Christianity](http://en.wikipedia.org/wiki/Christianity) took root in Egypt as it was seen as another cult that could be accepted. However, it was an uncompromising religion that sought to win converts from [Egyptian Religion](http://en.wikipedia.org/wiki/Ancient_Egyptian_religion) and [Greco-Roman](http://en.wikipedia.org/wiki/Greco-Roman) religion and threatened the popular religious traditions. This led to persecution of converts to Christianity, culminating in the great purges of [Diocletian](http://en.wikipedia.org/wiki/Diocletian) starting in 303, but eventually Christianity won out. In 391 the Christian Emperor [Theodosius](http://en.wikipedia.org/wiki/Theodosius_I) introduced legislation that banned pagan rites and closed temples. Alexandria became the scene of great anti-pagan riots with public and private religious imagery destroyed. As a consequence, Egypt's native religious culture was continually in decline. While the native population certainly continued to speak [their language](http://en.wikipedia.org/wiki/Egyptian_language), the ability to read [hieroglyphic writing](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) slowly disappeared as the role of the Egyptian temple priests and priestesses diminished. The temples themselves were sometimes converted to [churches](http://en.wikipedia.org/wiki/Church_%28building%29) or abandoned to the desert.

In the 4th century AD, the [Roman Empire](http://en.wikipedia.org/wiki/Roman_Empire) split into two, and Egypt became part of the Eastern Empire, known as the [Byzantine Empire](http://en.wikipedia.org/wiki/Byzantine_Empire). The Eastern Empire became increasingly "oriental" and "Eastern" in style, as its links with the old [Greco-Roman](http://en.wikipedia.org/wiki/Greco-Roman) world faded. The Greek system of local government by citizens had now entirely disappeared.

The [Sassanid](http://en.wikipedia.org/wiki/Sassanid) [Persians](http://en.wikipedia.org/wiki/Persian_people) who were involved in a long running and draining war with [Byzantium](http://en.wikipedia.org/wiki/Byzantium) for control of the [Near East](http://en.wikipedia.org/wiki/Near_East), [Asia Minor](http://en.wikipedia.org/wiki/Asia_Minor), [North Africa](http://en.wikipedia.org/wiki/North_Africa) and the east [Mediterranean](http://en.wikipedia.org/wiki/Mediterranean), briefly recaptured Egypt under King [Khosrow II](http://en.wikipedia.org/wiki/Khosrow_II) in 618 AD, but were ejected by the Byzantine Emperor [Heraclius](http://en.wikipedia.org/wiki/Heraclius) in 628 AD.

**Arab Muslim Period**

An army of 4,000 [Arabs](http://en.wikipedia.org/wiki/Arabs) led by [Amr Ibn Al-Aas](http://en.wikipedia.org/wiki/Amr_Ibn_Al-Aas) was sent by the [Caliph Umar](http://en.wikipedia.org/wiki/Caliph_Umar), successor to Muhammad, to spread [Islamic](http://en.wikipedia.org/wiki/Islamic) rule to the west. The [Arabs](http://en.wikipedia.org/wiki/Arabs) crossed into Egypt from [Palestine](http://en.wikipedia.org/wiki/Palestine) in December 639 AD, and advanced rapidly into the Nile Delta. The Imperial garrisons, exhausted by constant war with the [Persians](http://en.wikipedia.org/wiki/Persia), retreated into the walled towns, where they successfully held out for a year or more. But the Arabs sent for reinforcements, and in April 641 they captured Alexandria. The Byzantines did assemble a fleet with the aim of recapturing Egypt, and won back Alexandria in 645, but the Muslims retook the city in 646, completing the Arab Muslim conquest of Egypt. Thus ended 975 years of Græco-Roman rule over Egypt.

Local resistance by the native Egyptian [Copts](http://en.wikipedia.org/wiki/Copts) however began to materialize shortly thereafter and would last until at least the 9th century. The Arabs imposed a special tax, known as [Jizya](http://en.wikipedia.org/wiki/Jizya), on the Egyptians, who were by this time [Coptic Christians](http://en.wikipedia.org/wiki/Coptic_Christians). They acquired the status of [dhimmis](http://en.wikipedia.org/wiki/Dhimmis), and all native Egyptians were prohibited from joining the army. The Arabs in the 7th century used the term *quft* to describe the indigenous people of Egypt. Thus, Egyptians became known as [Copts](http://en.wikipedia.org/wiki/Copts), and the non-Chalcedonian [Egyptian Church](http://en.wikipedia.org/wiki/Egyptian_Church) became known as the [Coptic Church](http://en.wikipedia.org/wiki/Coptic_Church). The indigenous population of Egypt was gradually and largely *Arabized* and *Islamicized* over the following centuries, However, native Egyptian identity and language survived among the Copts, who spoke the Coptic language, a direct descendant of the [Demotic](http://en.wikipedia.org/wiki/Demotic_%28Egyptian%29) Egyptian (which itself was an evolution of [Ancient Egyptian](http://en.wikipedia.org/wiki/Ancient_Egyptian)) spoken in the Roman era. Since the 18th century, Coptic has mostly been limited to liturgical use and today Coptic is extinct as a primary language. Copts still to this day espouse an [Egyptian](http://en.wikipedia.org/wiki/Egypt) rather than [Arab](http://en.wikipedia.org/wiki/Arab) ethnic identity.

**Government and economy**

**Administration and commerce**

The pharaoh was usually depicted wearing symbols of royalty and power.

The [pharaoh](http://en.wikipedia.org/wiki/Pharaoh) was the absolute monarch of the country and, at least in theory, wielded complete control of the land and its resources. The king was the supreme [military commander](http://en.wikipedia.org/wiki/Commander) and head of the government, who relied on a bureaucracy of officials to manage his affairs. In charge of the administration was his second in command, the [vizier](http://en.wikipedia.org/wiki/Vizier_%28Ancient_Egypt%29), who acted as the king's representative and coordinated land surveys, the treasury, building projects, the legal system, and the archives. At a regional level, the country was divided into as many as 42 administrative regions called [names](http://en.wikipedia.org/wiki/Nome_%28Egypt%29) each governed by a [nomarch](http://en.wikipedia.org/wiki/Nomarch), who was accountable to the vizier for his jurisdiction. The [temples](http://en.wikipedia.org/wiki/Egyptian_temple) formed the backbone of the economy. Not only were they [houses of worship](http://en.wikipedia.org/wiki/Place_of_worship), but were also responsible for collecting and storing the nation's wealth in a system of [granaries](http://en.wikipedia.org/wiki/Granary) and treasuries administered by [overseers](http://en.wikipedia.org/wiki/Supervisor), who redistributed grain and goods.

Much of the economy was centrally organized and strictly controlled. Although the ancient Egyptians did not use [coinage](http://en.wikipedia.org/wiki/Currency) until the [Late period](http://en.wikipedia.org/wiki/Late_Period_of_ancient_Egypt), they did use a type of money-barter system, with standard sacks of grain and the [*deben*](http://en.wikipedia.org/wiki/Deben_%28unit%29), a weight of roughly 91 grams (3 oz) of copper or silver, forming a common denominator. Workers were paid in grain; a simple laborer might earn 5½ sacks (200 kg or 400 lb.) of grain per month, while a foreman might earn 7½ sacks (250 kg or 550 lb.). Prices were fixed across the country and recorded in lists to facilitate trading; for example a shirt cost five copper deben, while a cow cost 140 deben. Grain could be traded for other goods, according to the fixed price list. During the 5th century BC coined money was introduced into Egypt from abroad. At first the coins were used as standardized pieces of [precious metal](http://en.wikipedia.org/wiki/Precious_metal) rather than true money, but in the following centuries international traders came to rely on coinage.

**Social status**

Egyptian society was highly stratified, and [social status](http://en.wikipedia.org/wiki/Social_status) was expressly displayed. Farmers made up the bulk of the population, but agricultural produce was owned directly by the state, temple, or [noble family](http://en.wikipedia.org/wiki/Nobility) that owned the land. Farmers were also subject to a labor tax and were required to work on irrigation or construction projects in a [corvée](http://en.wikipedia.org/wiki/Corv%C3%A9e) system. Artists and craftsmen were of higher status than farmers, but they were also under state control, working in the shops attached to the temples and paid directly from the state treasury. Scribes and officials formed the upper class in ancient Egypt, the so-called "white kilt class" in reference to the bleached linen garments that served as a mark of their rank. The upper class prominently displayed their social status in art and literature. Below the nobility were the priests, physicians, and engineers with specialized training in their field. [Slavery](http://en.wikipedia.org/wiki/Slavery) was known in ancient Egypt, but the extent and prevalence of its practice are unclear.

Punishment in Ancient Egypt.

Young Egyptian laborers treated by doctors after circumcision, as a part of a rite of passage to citizenship.

The ancient Egyptians viewed men and women, including people from all social classes except slaves, as essentially equal under the law, and even the lowliest [peasant](http://en.wikipedia.org/wiki/Peasant) was entitled to petition the [vizier](http://en.wikipedia.org/wiki/Vizier_%28Ancient_Egypt%29) and his court for redress. Although, slaves were mostly used as indentured servants. They were able to buy and sell, or work their way to freedom or nobility, and usually were treated by [doctors](http://en.wikipedia.org/wiki/Physician) in the workplace. Both men and women had the right to own and sell property, make contracts, marry and divorce, receive inheritance, and pursue legal disputes in court. Married couples could own property jointly and protect themselves from divorce by agreeing to marriage contracts, which stipulated the financial obligations of the husband to his wife and children should the marriage end. Compared with their counterparts in ancient Greece, Rome, and even more modern places around the world, ancient Egyptian women had a greater range of personal choices and opportunities for achievement. Women such as [Hatshepsut](http://en.wikipedia.org/wiki/Hatshepsut) and [Cleopatra VI](http://en.wikipedia.org/wiki/Cleopatra_VI) even became pharaohs, while others wielded power as [Divine Wives of Amun](http://en.wikipedia.org/wiki/God%27s_Wife_of_Amun). Despite these freedoms, ancient Egyptian women did not often take part in official roles in the administration, served only secondary roles in the temples, and were not as likely to be as educated as men.

Scribes were elite and well educated. They assessed taxes, kept records, and were responsible for administration.

**Legal system**

The head of the legal system was officially the pharaoh, who was responsible for enacting laws, delivering justice, and maintaining law and order, a concept the ancient Egyptians referred to as [Ma'at](http://en.wikipedia.org/wiki/Ma%27at). Although no [legal codes](http://en.wikipedia.org/wiki/Legal_code) from ancient Egypt survive, court documents show that Egyptian law was based on a common-sense view of right and wrong that emphasized reaching agreements and resolving conflicts rather than strictly adhering to a complicated set of statutes. Local councils of elders, known as *Kenbet* in the New Kingdom, were responsible for ruling in court cases involving small claims and minor disputes. More serious cases involving murder, major land transactions, and tomb robbery were referred to the *Great Kenbet*, over which the vizier or pharaoh presided. Plaintiffs and defendants were expected to represent themselves and were required to swear an oath that they had told the truth. In some cases, the state took on both the role of prosecutor and judge, and it could torture the accused with beatings to obtain a confession and the names of any co-conspirators. Whether the charges were trivial or serious, court scribes documented the complaint, testimony, and verdict of the case for future reference.

Punishment for minor crimes involved either imposition of fines, beatings, facial mutilation, or exile, depending on the severity of the offense. Serious crimes such as murder and tomb robbery were punished by execution, carried out by decapitation, drowning, or impaling the criminal on a stake. Punishment could also be extended to the criminal's family. Beginning in the New Kingdom, [oracles](http://en.wikipedia.org/wiki/Oracle) played a major role in the legal system, dispensing justice in both civil and criminal cases. The procedure was to ask the god a "yes" or "no" question concerning the right or wrong of an issue. The god, carried by a number of priests, rendered judgment by choosing one or the other, moving forward or backward, or pointing to one of the answers written on a piece of papyrus or an [ostracon](http://en.wikipedia.org/wiki/Ostracon).

**Agriculture**

See also: [Ancient Egyptian agriculture](http://en.wikipedia.org/wiki/Ancient_Egyptian_agriculture), [Ancient Egyptian cuisine](http://en.wikipedia.org/wiki/Ancient_Egyptian_cuisine), and [Gardens of ancient Egypt](http://en.wikipedia.org/wiki/Gardens_of_ancient_Egypt)

A tomb relief depicts workers plowing the fields, harvesting the crops, and threshing the grain under the direction of an overseer, painting in the tomb of [Nakht](http://en.wikipedia.org/wiki/TT52).

Measuring and recording the harvest is shown in a wall painting in the tomb of [Menna](http://en.wikipedia.org/wiki/TT69), at [Thebes, Egypt](http://en.wikipedia.org/wiki/Thebes%2C_Egypt) (18th dynasty).

A combination of favorable geographical features contributed to the success of ancient Egyptian culture, the most important of which was the rich [fertile soil](http://en.wikipedia.org/wiki/Fertile_soil) resulting from annual inundations of the Nile River. The ancient Egyptians were thus able to produce an abundance of food, allowing the population to devote more time and resources to cultural, technological, and artistic pursuits. [Land management](http://en.wikipedia.org/wiki/Land_management) was crucial in ancient Egypt because taxes were assessed based on the amount of land a person owned.

Farming in Egypt was dependent on the cycle of the Nile River. The Egyptians recognized three seasons: *Akhet* (flooding), *Peret* (planting), and *Shemu* (harvesting). The flooding season lasted from June to September, depositing on the river's banks a layer of mineral-rich silt ideal for growing crops. After the floodwaters had receded, the [growing season](http://en.wikipedia.org/wiki/Growing_season) lasted from October to February. Farmers plowed and planted seeds in the fields, which were irrigated with ditches and canals. Egypt received little rainfall, so farmers relied on the Nile to water their crops. From March to May, farmers used [sickles](http://en.wikipedia.org/wiki/Sickle) to harvest their crops, which were then [threshed](http://en.wikipedia.org/wiki/Threshing) with a [flail](http://en.wikipedia.org/wiki/Flail) to separate the straw from the grain. [Winnowing](http://en.wikipedia.org/wiki/Winnowing) removed the [chaff](http://en.wikipedia.org/wiki/Chaff) from the grain, and the grain was then ground into flour, brewed to make beer, or stored for later use.

The ancient Egyptians cultivated [emmer](http://en.wikipedia.org/wiki/Emmer) and [barley](http://en.wikipedia.org/wiki/Barley), and several other cereal grains, all of which were used to make the two main food staples of bread and beer. [Flax](http://en.wikipedia.org/wiki/Flax) plants, uprooted before they started flowering, were grown for the fibers of their stems. These fibers were split along their length and spun into thread, which was used to weave sheets of [linen](http://en.wikipedia.org/wiki/Linen) and to make clothing. [Papyrus](http://en.wikipedia.org/wiki/Papyrus) growing on the banks of the Nile River was used to make paper. Vegetables and fruits were grown in garden plots, close to habitations and on higher ground, and had to be watered by hand. Vegetables included leeks, garlic, melons, squashes, pulses, lettuce, and other crops, in addition to grapes that were made into wine.

Sennedjem plows his fields with a pair of oxen, used as beasts of burden and a source of food.

**Animals**

The Egyptians believed that a balanced relationship between people and animals was an essential element of the cosmic order; thus humans, animals and plants were believed to be members of a single whole. Animals, both [domesticated](http://en.wikipedia.org/wiki/Domestication) and wild, were therefore a critical source of spirituality, companionship, and sustenance to the ancient Egyptians. Cattle were the most important livestock; the administration collected taxes on livestock in regular censuses, and the size of a herd reflected the prestige and importance of the estate or temple that owned them. In addition to cattle, the ancient Egyptians kept sheep, goats, and pigs. Poultry such as ducks, geese, and pigeons were captured in nets and bred on farms, where they were force-fed with dough to fatten them. The Nile provided a plentiful source of fish. Bees were also domesticated from at least the Old Kingdom, and they provided both honey and wax.

The ancient Egyptians used donkeys and [oxen](http://en.wikipedia.org/wiki/Oxen) as [beasts of burden](http://en.wikipedia.org/wiki/Working_animal), and they were responsible for plowing the fields and trampling seed into the soil. The slaughter of a fattened ox was also a central part of an offering ritual. Horses were introduced by the Hyksos in the Second Intermediate Period, and the camel, although known from the New Kingdom, was not used as a beast of burden until the Late Period. There is also evidence to suggest that [elephants](http://en.wikipedia.org/wiki/Elephant) were briefly utilized in the Late Period, but largely abandoned due to lack of [grazing](http://en.wikipedia.org/wiki/Grazing) land. Dogs, cats and monkeys were common family pets, while more exotic pets imported from the heart of Africa, such as lions, were reserved for royalty. [Herodotus](http://en.wikipedia.org/wiki/Herodotus) observed that the Egyptians were the only people to keep their animals with them in their houses. During the Predynastic and Late periods, the worship of the gods in their animal form was extremely popular, such as the cat goddess [Bastet](http://en.wikipedia.org/wiki/Bastet_%28mythology%29) and the ibis god [Thoth](http://en.wikipedia.org/wiki/Thoth), and these animals were bred in large numbers on farms for the purpose of ritual sacrifice.

**Natural resources**

*Further information:* [*Mining industry of Egypt*](http://en.wikipedia.org/wiki/Mining_industry_of_Egypt)

Egypt is rich in building and decorative stone, copper and lead ores, gold, and semiprecious stones. These [natural resources](http://en.wikipedia.org/wiki/Natural_resource) allowed the ancient Egyptians to build monuments, sculpt statues, make tools, and [fashion jewelry](http://en.wikipedia.org/wiki/Fashion_jewelry). [Embalmers](http://en.wikipedia.org/wiki/Embalming) used salts from the [Wadi Natrun](http://en.wikipedia.org/wiki/Wadi_El_Natrun) for [mummification](http://en.wikipedia.org/wiki/Mummy), which also provided the [gypsum](http://en.wikipedia.org/wiki/Gypsum) needed to make plaster. Ore-bearing [rock formations](http://en.wikipedia.org/wiki/Rock_formation) were found in distant, inhospitable [wadis](http://en.wikipedia.org/wiki/Wadi) in the [eastern desert](http://en.wikipedia.org/wiki/Arabian_Desert) and the Sinai, requiring large, state-controlled expeditions to obtain natural resources found there. There were extensive [gold mines](http://en.wikipedia.org/wiki/Gold_mining) in [Nubia](http://en.wikipedia.org/wiki/Nubia), and one of the first maps known is of a gold mine in this region. The [Wadi Hammamat](http://en.wikipedia.org/wiki/Wadi_Hammamat) was a notable source of granite, [greywacke](http://en.wikipedia.org/wiki/Greywacke), and gold. [Flint](http://en.wikipedia.org/wiki/Flint) was the first mineral collected and used to make tools, and flint hand axes are the earliest pieces of evidence of habitation in the Nile valley. Nodules of the mineral were carefully flaked to make blades and arrowheads of moderate hardness and durability even after copper was adopted for this purpose. Ancient Egyptians were among the first to use minerals such as [sulfur](http://en.wikipedia.org/wiki/Sulfur) as cosmetic substances.

The Egyptians worked deposits of the [lead ore](http://en.wikipedia.org/wiki/Lead) [galena](http://en.wikipedia.org/wiki/Galena) at Gebel Rosas to make net sinkers, plumb bobs, and small figurines. Copper was the most important metal for toolmaking in ancient Egypt and was smelted in furnaces from [malachite](http://en.wikipedia.org/wiki/Malachite) ore mined in the Sinai. Workers collected gold by washing the nuggets out of sediment in [alluvial deposits](http://en.wikipedia.org/wiki/Alluvium), or by the more labor-intensive process of grinding and washing gold-bearing quartzite. Iron deposits found in upper Egypt were utilized in the Late Period. High-quality building stones were abundant in Egypt; the ancient Egyptians quarried limestone all along the Nile valley, granite from Aswan, and basalt and sandstone from the wadis of the eastern desert. Deposits of decorative stones such as [porphyry](http://en.wikipedia.org/wiki/Porphyry_%28geology%29), greywacke, [alabaster](http://en.wikipedia.org/wiki/Alabaster), and [carnelian](http://en.wikipedia.org/wiki/Carnelian) dotted the eastern desert and were collected even before the First Dynasty. In the Ptolemaic and Roman Periods, miners worked deposits of [emeralds](http://en.wikipedia.org/wiki/Emerald) in Wadi Sikait and [amethyst](http://en.wikipedia.org/wiki/Amethyst) in Wadi el-Hudi.

Hatshepsut's trading expedition to the [Land of Punt](http://en.wikipedia.org/wiki/Land_of_Punt).

**Trade**

Main article: [Ancient Egyptian trade](http://en.wikipedia.org/wiki/Ancient_Egyptian_trade)

The ancient Egyptians engaged in trade with their [foreign neighbors](http://en.wikipedia.org/wiki/Foreign_contacts_of_ancient_Egypt) to obtain rare, exotic goods not found in Egypt. In the [Predynastic Period](http://en.wikipedia.org/wiki/Predynastic_Egypt), they established trade with Nubia to obtain gold and incense. They also established trade with Palestine, as evidenced by Palestinian-style oil jugs found in the burials of the First Dynasty pharaohs. An Egyptian [colony](http://en.wikipedia.org/wiki/Colony) stationed in southern [Canaan](http://en.wikipedia.org/wiki/Canaan) dates to slightly before the First Dynasty. [Narmer](http://en.wikipedia.org/wiki/Narmer) had Egyptian pottery produced in Canaan and exported back to [Egypt](http://en.wikipedia.org/wiki/Egypt).

By the Second Dynasty at latest, ancient Egyptian trade with [Byblos](http://en.wikipedia.org/wiki/Byblos) yielded a critical source of quality timber not found in Egypt. By the Fifth Dynasty, trade with [Punt](http://en.wikipedia.org/wiki/Land_of_Punt) provided gold, aromatic resins, ebony, ivory, and wild animals such as monkeys and baboons. Egypt relied on trade with [Anatolia](http://en.wikipedia.org/wiki/Anatolia) for essential quantities of tin as well as supplementary supplies of copper, both metals being necessary for the manufacture of bronze. The ancient Egyptians prized the blue stone [lapis lazuli](http://en.wikipedia.org/wiki/Lapis_lazuli), which had to be imported from far-away [Afghanistan](http://en.wikipedia.org/wiki/Afghanistan). Egypt's Mediterranean trade partners also included [Greece](http://en.wikipedia.org/wiki/Ancient_Greece) and Crete, which provided, among other goods, supplies of [olive oil](http://en.wikipedia.org/wiki/Olive_oil). In exchange for its luxury imports and raw materials, Egypt mainly exported grain, gold, linen, and papyrus, in addition to other finished goods including glass and stone objects.

**Language**

Main article: [Egyptian language](http://en.wikipedia.org/wiki/Egyptian_language)

**Historical development**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

 |

 |
| ***r n kmt*'Egyptian language'in** [**hieroglyphs**](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) |

The [Egyptian language](http://en.wikipedia.org/wiki/Egyptian_language) is a northern [Afro-Asiatic](http://en.wikipedia.org/wiki/Afro-Asiatic_languages) language closely related to the [Berber](http://en.wikipedia.org/wiki/Berber_languages) and [Semitic languages](http://en.wikipedia.org/wiki/Semitic_languages). It has the second longest history of any language (after [Sumerian](http://en.wikipedia.org/wiki/Sumerian_language)), having been written from c. 3200 BC to the Middle Ages and remaining as a spoken language for longer. The phases of Ancient Egyptian are [Old Egyptian](http://en.wikipedia.org/wiki/Old_Egyptian), [Middle Egyptian](http://en.wikipedia.org/wiki/Middle_Egyptian) (Classical Egyptian), [Late Egyptian](http://en.wikipedia.org/wiki/Late_Egyptian), [Demotic](http://en.wikipedia.org/wiki/Demotic_%28Egyptian%29) and [Coptic](http://en.wikipedia.org/wiki/Coptic_language). Egyptian writings do not show dialect differences before Coptic, but it was probably spoken in regional dialects around Memphis and later Thebes.

Ancient Egyptian was a [synthetic language](http://en.wikipedia.org/wiki/Synthetic_language), but it became more [analytic](http://en.wikipedia.org/wiki/Analytic_language) later on. Late Egyptian develops prefixal definite and indefinite [articles](http://en.wikipedia.org/wiki/Article_%28grammar%29), which replace the older inflectional [suffixes](http://en.wikipedia.org/wiki/Suffix). There is a change from the older [verb–subject–object](http://en.wikipedia.org/wiki/Verb%E2%80%93subject%E2%80%93object) [word order](http://en.wikipedia.org/wiki/Word_order) to [subject–verb–object](http://en.wikipedia.org/wiki/Subject%E2%80%93verb%E2%80%93object). The Egyptian [hieroglyphic](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs), [hieratic](http://en.wikipedia.org/wiki/Hieratic), and demotic scripts were eventually replaced by the more phonetic [Coptic alphabet](http://en.wikipedia.org/wiki/Coptic_alphabet). Coptic is still used in the liturgy of the [Egyptian Orthodox Church](http://en.wikipedia.org/wiki/Coptic_Orthodox_Church_of_Alexandria), and traces of it are found in modern [Egyptian Arabic](http://en.wikipedia.org/wiki/Egyptian_Arabic).

**Sounds and grammar**

Ancient Egyptian has 25 consonants similar to those of other Afro-Asiatic languages. These include [pharyngeal](http://en.wikipedia.org/wiki/Pharyngeal_consonant) and [emphatic](http://en.wikipedia.org/wiki/Emphatic_consonant) consonants, voiced and voiceless stops, voiceless [fricatives](http://en.wikipedia.org/wiki/Fricative_consonant) and voiced and voiceless [affricates](http://en.wikipedia.org/wiki/Affricate_consonant). It has three long and three short vowels, which expanded in Later Egyptian to about nine. The basic word in Egyptian, similar to Semitic and Berber, is a [triliteral](http://en.wikipedia.org/wiki/Semitic_root) or biliteral root of consonants and semi-consonants. Suffixes are added to form words. The verb conjugation corresponds to the [person](http://en.wikipedia.org/wiki/Grammatical_person). For example, the triconsonantal skeleton **S-Ḏ-M** is the semantic core of the word 'hear'; its basic conjugation is *sḏm*, 'he hears'. If the subject is a noun, suffixes are not added to the verb: *sḏm ḥmt*, 'the woman hears'.

Adjectives are derived from nouns through a process that Egyptologists call [*nisbation*](http://en.wikipedia.org/wiki/Arabic_grammar) because of its similarity with Arabic. The word order is predicate–subject in verbal and adjectival sentences, and subject–predicate in nominal and adverbial sentences. The subject can be moved to the beginning of sentences if it is long and is followed by a resumptive pronoun. Verbs and nouns are negated by the [particle](http://en.wikipedia.org/wiki/Grammatical_particle) *n*, but *nn* is used for adverbial and adjectival sentences. [Stress](http://en.wikipedia.org/wiki/Stress_%28linguistics%29) falls on the ultimate or penultimate syllable, which can be open (CV) or closed (CVC).

**Writing**

Main articles: [Egyptian hieroglyphs](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) and [Hieratic](http://en.wikipedia.org/wiki/Hieratic)

The [Rosetta stone](http://en.wikipedia.org/wiki/Rosetta_Stone) (ca 196 BC) enabled linguists to begin the process of hieroglyph decipherment.

[Hieroglyphic writing](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) dates from c. 3000 BC, and is composed of hundreds of symbols. A hieroglyph can represent a word, a sound, or a silent determinative; and the same symbol can serve different purposes in different contexts. Hieroglyphs were a formal script, used on stone monuments and in tombs, that could be as detailed as individual works of art. In day-to-day writing, scribes used a cursive form of writing, called [hieratic](http://en.wikipedia.org/wiki/Hieratic), which was quicker and easier. While formal hieroglyphs may be read in rows or columns in either direction (though typically written from right to left), hieratic was always written from right to left, usually in horizontal rows. A new form of writing, [Demotic](http://en.wikipedia.org/wiki/Demotic_%28Egyptian%29), became the prevalent writing style, and it is this form of writing—along with formal hieroglyphs—that accompany the Greek text on the Rosetta Stone.

Around the 1st century AD, the Coptic alphabet started to be used alongside the Demotic script. Coptic is a modified [Greek alphabet](http://en.wikipedia.org/wiki/Greek_alphabet) with the addition of some Demotic signs. Although formal hieroglyphs were used in a ceremonial role until the 4th century, towards the end only a small handful of priests could still read them. As the traditional religious establishments were disbanded, knowledge of hieroglyphic writing was mostly lost. Attempts to decipher them date to the Byzantine and Islamic periods in Egypt, but only in 1822, after the discovery of the Rosetta stone and years of research by [Thomas Young](http://en.wikipedia.org/wiki/Thomas_Young_%28scientist%29) and [Jean-François Champollion](http://en.wikipedia.org/wiki/Jean-Fran%C3%A7ois_Champollion), were hieroglyphs almost fully deciphered.

**Literature**

Main article: [Ancient Egyptian literature](http://en.wikipedia.org/wiki/Ancient_Egyptian_literature)

The [Edwin Smith surgical papyrus](http://en.wikipedia.org/wiki/Edwin_Smith_Papyrus) (c. 16th century BC) describes anatomy and medical treatments and is written in hieratic.

Writing first appeared in association with kingship on labels and tags for items found in royal tombs. It was primarily an occupation of the scribes, who worked out of the *Per Ankh* institution or the House of Life. The latter comprised offices, libraries (called House of Books), laboratories and observatories. Some of the best-known pieces of ancient Egyptian literature, such as the [Pyramid](http://en.wikipedia.org/wiki/Pyramid_Texts) and [Coffin Texts](http://en.wikipedia.org/wiki/Coffin_Texts), were written in Classical Egyptian, which continued to be the language of writing until about 1300 BC. Later Egyptian was spoken from the New Kingdom onward and is represented in [Ramesside](http://en.wikipedia.org/wiki/Ramesside_Period) administrative documents, love poetry and tales, as well as in Demotic and Coptic texts. During this period, the tradition of writing had evolved into the tomb autobiography, such as those of [Harkhuf](http://en.wikipedia.org/wiki/Harkhuf) and [Weni](http://en.wikipedia.org/wiki/Weni_the_Elder). The genre known as [*Sebayt*](http://en.wikipedia.org/wiki/Sebayt) (*Instructions*) was developed to communicate teachings and guidance from famous nobles; the [Ipuwer papyrus](http://en.wikipedia.org/wiki/Ipuwer_Papyrus), a poem of lamentations describing [natural disasters](http://en.wikipedia.org/wiki/Natural_disaster) and social upheaval, is a famous example.

The [Story of Sinuhe](http://en.wikipedia.org/wiki/Story_of_Sinuhe), written in [Middle Egyptian](http://en.wikipedia.org/wiki/Middle_Egyptian), might be the classic of Egyptian literature. Also written at this time was the [Westcar Papyrus](http://en.wikipedia.org/wiki/Westcar_Papyrus), a set of stories told to [Khufu](http://en.wikipedia.org/wiki/Khufu) by his sons relating the marvels performed by priests. The [Instruction of Amenemope](http://en.wikipedia.org/wiki/Instruction_of_Amenemope) is considered a masterpiece of near-eastern literature. Towards the end of the New Kingdom, the [vernacular language](http://en.wikipedia.org/wiki/Late_Egyptian) was more often employed to write popular pieces like the [Story of Wenamun](http://en.wikipedia.org/wiki/Story_of_Wenamun) and the [Instruction of Any](http://en.wikipedia.org/wiki/Instruction_of_Any). The former tells the story of a noble who is robbed on his way to buy cedar from Lebanon and of his struggle to return to Egypt. From about 700 BC, narrative stories and instructions, such as the popular Instructions of Onchsheshonqy, as well as personal and business documents were written in the [demotic](http://en.wikipedia.org/wiki/Demotic_%28Egyptian%29) script and phase of Egyptian. Many stories written in demotic during the [Graeco-Roman](http://en.wikipedia.org/wiki/Greco-Roman) period were set in previous historical eras, when Egypt was an independent nation ruled by great pharaohs such as [Ramesses II](http://en.wikipedia.org/wiki/Ramesses_II).

**Culture**

**Daily life**

Ostraca of hunting a lion with a spear aided with dog.

Statues depicting lower-class Ancient Egyptian occupations.

[Senet](http://en.wikipedia.org/wiki/Senet) is among the oldest board games in the world. Painting in the royal tomb of Egyptian Queen [Nefertari](http://en.wikipedia.org/wiki/Nefertari).

Most ancient Egyptians were farmers tied to the land. Their dwellings were restricted to immediate family members, and were constructed of [mud-brick](http://en.wikipedia.org/wiki/Mudbrick) designed to remain cool in the heat of the day. Each home had a kitchen with an open roof, which contained a grindstone for milling flour and a small oven for baking the bread. Walls were painted white and could be covered with dyed linen wall hangings. Floors were covered with reed mats, while wooden stools, beds raised from the floor and individual tables comprised the furniture.

The ancient Egyptians placed a great value on hygiene and appearance. Most bathed in the Nile and used a pasty soap made from [animal fat](http://en.wikipedia.org/wiki/Animal_fat) and chalk. Men shaved their entire bodies for cleanliness; perfumes and aromatic ointments covered bad odors and soothed skin. Clothing was made from simple linen sheets that were bleached white, and both men and women of the upper classes wore wigs, jewelry, and [cosmetics](http://en.wikipedia.org/wiki/Beauty_and_Cosmetics_in_Ancient_Egypt). Children went without clothing until maturity, at about age 12, and at this age males were circumcised and had their heads shaved. Mothers were responsible for taking care of the children, while the father provided the family's [income](http://en.wikipedia.org/wiki/Income).

The ancient Egyptians maintained a rich cultural heritage complete with feasts and festivals accompanied by music and dance.

Music and dance were popular entertainments for those who could afford them. Early instruments included flutes and harps, while instruments similar to trumpets, oboes, and pipes developed later and became popular. In the New Kingdom, the Egyptians played on bells, cymbals, tambourines, drums, and imported [lutes](http://en.wikipedia.org/wiki/Lute) and [lyres](http://en.wikipedia.org/wiki/Lyre) from Asia. The [sistrum](http://en.wikipedia.org/wiki/Sistrum) was a rattle-like [musical instrument](http://en.wikipedia.org/wiki/Musical_instrument) that was especially important in religious ceremonies.

The ancient Egyptians enjoyed a variety of leisure activities, including games and music. [Senet](http://en.wikipedia.org/wiki/Senet), a board game where pieces moved according to random chance, was particularly popular from the earliest times; another similar game was [mehen](http://en.wikipedia.org/wiki/Mehen_%28game%29), which had a circular gaming board. Juggling and [ball games](http://en.wikipedia.org/wiki/Ball_game) were popular with children, and wrestling is also documented in a tomb at [Beni Hasan](http://en.wikipedia.org/wiki/Beni_Hasan). The wealthy members of ancient Egyptian society enjoyed hunting and boating as well.

The excavation of the workers' village of [Deir el-Madinah](http://en.wikipedia.org/wiki/Deir_el-Madinah) has resulted in one of the most thoroughly documented accounts of community life in the ancient world that spans almost four hundred years. There is no comparable site in which the organization, social interactions, working and living conditions of a community were studied in such detail.

**Cuisine**

Main article: [Ancient Egyptian cuisine](http://en.wikipedia.org/wiki/Ancient_Egyptian_cuisine)

Egyptian cuisine remained remarkably stable over time; indeed, the [cuisine of modern Egypt](http://en.wikipedia.org/wiki/Egyptian_cuisine) retains some striking similarities to the cuisine of the ancients. The staple diet consisted of bread and beer, supplemented with vegetables such as onions and garlic, and fruit such as dates and figs. Wine and meat were enjoyed by all on feast days while the upper classes indulged on a more regular basis. Fish, meat, and fowl could be salted or dried, and could be cooked in stews or roasted on a grill.

Karnak temple's hypostyle halls are constructed with rows of thick columns supporting the roof beams.

**Architecture**

Main article: [Ancient Egyptian architecture](http://en.wikipedia.org/wiki/Ancient_Egyptian_architecture)

The well preserved [Temple of Horus at Edfu](http://en.wikipedia.org/wiki/Temple_of_Edfu) is an exemplar of Egyptian architecture.

The architecture of ancient Egypt includes some of the most famous structures in the world: the [Great Pyramids of Giza](http://en.wikipedia.org/wiki/Giza_pyramid_complex) and the [temples at Thebes](http://en.wikipedia.org/wiki/Karnak). Building projects were organized and funded by the state for religious and commemorative purposes, but also to reinforce the power of the pharaoh. The ancient Egyptians were skilled builders; using simple but effective tools and sighting instruments, architects could build large [stone structures](http://en.wikipedia.org/wiki/Stone_structures) with accuracy and precision.

The domestic dwellings of elite and ordinary Egyptians alike were constructed from perishable materials such as mud bricks and wood, and have not survived. Peasants lived in simple homes, while the palaces of the elite were more elaborate structures. A few surviving New Kingdom palaces, such as those in [Malkata](http://en.wikipedia.org/wiki/Malkata) and [Amarna](http://en.wikipedia.org/wiki/Amarna), show richly decorated walls and floors with scenes of people, birds, water pools, deities and geometric designs. Important structures such as temples and tombs that were intended to last forever were constructed of stone instead of bricks. The architectural elements used in the world's first large-scale stone building, [Djoser](http://en.wikipedia.org/wiki/Djoser)'s mortuary complex, include [post and lintel](http://en.wikipedia.org/wiki/Post_and_lintel) supports in the papyrus and lotus motif.

The earliest preserved ancient [Egyptian temples](http://en.wikipedia.org/wiki/Egyptian_temples), such as those at Giza, consist of single, enclosed halls with roof slabs supported by columns. In the New Kingdom, architects added the [pylon](http://en.wikipedia.org/wiki/Pylon_%28architecture%29), the open courtyard, and the enclosed [hypostyle](http://en.wikipedia.org/wiki/Hypostyle) hall to the front of the temple's sanctuary, a style that was standard until the Graeco-Roman period. The earliest and most popular tomb architecture in the Old Kingdom was the [mastaba](http://en.wikipedia.org/wiki/Mastaba), a flat-roofed rectangular structure of mudbrick or stone built over an underground [burial chamber](http://en.wikipedia.org/wiki/Chamber_tomb). The [step pyramid](http://en.wikipedia.org/wiki/Step_pyramid) of Djoser is a series of stone mastabas stacked on top of each other. Pyramids were built during the Old and Middle Kingdoms, but most later rulers abandoned them in favor of less conspicuous rock-cut tombs. The 25th dynasty was a notable exception, as all 25th dynasty pharaohs constructed pyramids.

**Art**

[The Bust of Nefertiti](http://en.wikipedia.org/wiki/Nefertiti_bust), by the sculptor [Thutmose](http://en.wikipedia.org/wiki/Thutmose_%28sculptor%29), is one of the most famous masterpieces of ancient Egyptian art.

Main article: [Art of Ancient Egypt](http://en.wikipedia.org/wiki/Art_of_Ancient_Egypt)

The ancient Egyptians produced art to serve functional purposes. For over 3500 years, artists adhered to artistic forms and iconography that were developed during the Old Kingdom, following a strict set of principles that resisted foreign influence and internal change. These artistic standards—simple lines, shapes, and flat areas of color combined with the characteristic flat projection of figures with no indication of spatial depth—created a sense of order and balance within a composition. Images and text were intimately interwoven on tomb and temple walls, coffins, stelae, and even statues. The [Narmer Palette](http://en.wikipedia.org/wiki/Narmer_Palette), for example, displays figures that can also be read as hieroglyphs. Because of the rigid rules that governed its highly stylized and symbolic appearance, ancient Egyptian art served its political and religious purposes with precision and clarity.

Ancient Egyptian artisans used stone to carve statues and fine reliefs, but used wood as a cheap and easily carved substitute. Paints were obtained from minerals such as iron ores (red and yellow ochres), copper ores (blue and green), soot or charcoal (black), and limestone (white). Paints could be mixed with [gum Arabic](http://en.wikipedia.org/wiki/Gum_arabic) as a binder and pressed into cakes, which could be moistened with water when needed.

[Hathor](http://en.wikipedia.org/wiki/Hathor)-[Menkaure](http://en.wikipedia.org/wiki/Menkaure)-[Bat](http://en.wikipedia.org/wiki/Bat_%28goddess%29) [triad](http://en.wikipedia.org/wiki/Triple_deity) of the fourth dynasty – the deities flank the pharaoh and provide the authority to rule – [*Cairo*](http://en.wikipedia.org/wiki/Cairo) *Museum*

Pharaohs used [reliefs](http://en.wikipedia.org/wiki/Relief) to record victories in battle, royal decrees, and religious scenes. Common citizens had access to pieces of [funerary art](http://en.wikipedia.org/wiki/Funerary_art), such as [shabti](http://en.wikipedia.org/wiki/Ushabti) statues and books of the dead, which they believed would protect them in the afterlife. During the Middle Kingdom, wooden or clay models depicting scenes from everyday life became popular additions to the tomb. In an attempt to duplicate the activities of the living in the afterlife, these models show laborers, houses, boats, and even military formations that are scale representations of the ideal ancient Egyptian afterlife.

Despite the homogeneity of ancient Egyptian art, the styles of particular times and places sometimes reflected changing cultural or political attitudes. After the invasion of the Hyksos in the Second Intermediate Period, [Minoan](http://en.wikipedia.org/wiki/Minoan_civilization)-style frescoes were found in [Avaris](http://en.wikipedia.org/wiki/Avaris). The most striking example of a politically driven change in artistic forms comes from the Amarna period, where figures were radically altered to conform to [Akhenaten](http://en.wikipedia.org/wiki/Akhenaten)'s revolutionary religious ideas. This style, known as [Amarna art](http://en.wikipedia.org/wiki/Amarna_art), was quickly and thoroughly erased after Akhenaten's death and replaced by the traditional forms.

**Religious beliefs**

Main article: [Ancient Egyptian religion](http://en.wikipedia.org/wiki/Ancient_Egyptian_religion)

The [Book of the Dead](http://en.wikipedia.org/wiki/Book_of_the_Dead) was a guide to the deceased's journey in the afterlife.

Beliefs in the divine and in the afterlife were ingrained in ancient Egyptian civilization from its inception; pharaonic rule was based on the [divine right of kings](http://en.wikipedia.org/wiki/Divine_Right_of_Kings). The Egyptian pantheon was populated by [gods](http://en.wikipedia.org/wiki/Egyptian_pantheon) who had supernatural powers and were called on for help or protection. However, the gods were not always viewed as benevolent, and Egyptians believed they had to be appeased with offerings and prayers. The structure of this pantheon changed continually as new deities were promoted in the hierarchy, but priests made no effort to organize the diverse and sometimes conflicting [myths](http://en.wikipedia.org/wiki/Egyptian_mythology) and stories into a coherent system. These various conceptions of divinity were not considered contradictory but rather layers in the multiple facets of reality.

The [Ka statue](http://en.wikipedia.org/wiki/Ka_statue) provided a physical place for the Ka to manifest.

Gods were worshiped in cult [temples](http://en.wikipedia.org/wiki/Egyptian_temple) administered by priests acting on the king's behalf. At the center of the temple was the cult statue in a shrine. Temples were not places of public worship or congregation, and only on select feast days and celebrations was a shrine carrying the statue of the god brought out for public worship. Normally, the god's domain was sealed off from the outside world and was only accessible to temple officials. Common citizens could worship private statues in their homes, and amulets offered protection against the forces of chaos. After the New Kingdom, the pharaoh's role as a spiritual intermediary was de-emphasized as religious customs shifted to direct worship of the gods. As a result, priests developed a system of [oracles](http://en.wikipedia.org/wiki/Oracle) to communicate the will of the gods directly to the people.

The Egyptians believed that every human being was composed of physical and spiritual parts or *aspects*. In addition to the body, each person had a *šwt* (shadow), a *ba* (personality or soul), a *ka* (life-force), and a *name*. The heart, rather than the brain, was considered the seat of thoughts and emotions. After death, the spiritual aspects were released from the body and could move at will, but they required the physical remains (or a substitute, such as a statue) as a permanent home. The ultimate goal of the deceased was to rejoin his *ka* and *ba* and become one of the "blessed dead", living on as an *akh*, or "effective one". For this to happen, the deceased had to be judged worthy in a trial, in which the heart was weighed against a "feather of truth". If deemed worthy, the deceased could continue their existence on earth in spiritual form.

Pharaohs' tombs were provided with vast quantities of wealth, such as this golden mask from the mummy of [Tutankhamun](http://en.wikipedia.org/wiki/Tutankhamun).

**Burial customs**

Main article: [Ancient Egyptian burial customs](http://en.wikipedia.org/wiki/Ancient_Egyptian_burial_customs)

The ancient Egyptians maintained an elaborate set of burial customs that they believed were necessary to ensure immortality after death. These customs involved preserving the body by [mummification](http://en.wikipedia.org/wiki/Mummy), performing burial ceremonies, and interring with the body goods the deceased would use in the afterlife. Before the Old Kingdom, bodies buried in desert pits were naturally preserved by [desiccation](http://en.wikipedia.org/wiki/Desiccation). The arid, desert conditions were a boon throughout the history of ancient Egypt for burials of the poor, who could not afford the elaborate burial preparations available to the elite. Wealthier Egyptians began to bury their dead in stone tombs and use artificial mummification, which involved removing the [internal organs](http://en.wikipedia.org/wiki/Organ_%28anatomy%29), wrapping the body in linen, and burying it in a rectangular stone sarcophagus or wooden coffin. Beginning in the Fourth Dynasty, some parts were preserved separately in [canopic jars](http://en.wikipedia.org/wiki/Canopic_jar).

Anubis was the ancient Egyptian god associated with mummification and burial rituals; here, he attends to a mummy.

By the New Kingdom, the ancient Egyptians had perfected the art of mummification; the best technique took 70 days and involved removing the internal organs, removing the brain through the nose, and desiccating the body in a mixture of salts called [natron](http://en.wikipedia.org/wiki/Natron). The body was then wrapped in linen with protective amulets inserted between layers and placed in a decorated anthropoid coffin. Mummies of the Late Period were also placed in painted [cartonnage](http://en.wikipedia.org/wiki/Cartonnage) mummy cases. Actual preservation practices declined during the Ptolemaic and Roman eras, while greater emphasis was placed on the outer appearance of the mummy, which was decorated.

Wealthy Egyptians were buried with larger quantities of luxury items, but all burials, regardless of social status, included goods for the deceased. Beginning in the New Kingdom, [books of the dead](http://en.wikipedia.org/wiki/Book_of_the_Dead) were included in the grave, along with [shabti](http://en.wikipedia.org/wiki/Ushabti) statues that were believed to perform manual labor for them in the afterlife. Rituals in which the deceased was magically re-animated accompanied burials. After burial, living relatives were expected to occasionally bring food to the tomb and recite prayers on behalf of the deceased.

**Military**

Main article: [Military of ancient Egypt](http://en.wikipedia.org/wiki/Military_of_ancient_Egypt)

An Egyptian [chariot](http://en.wikipedia.org/wiki/Chariot).

The ancient Egyptian military was responsible for defending Egypt against foreign invasion, and for maintaining Egypt's domination in the [ancient Near East](http://en.wikipedia.org/wiki/Ancient_Near_East). The military protected mining expeditions to the Sinai during the Old Kingdom and fought civil wars during the First and Second Intermediate Periods. The military was responsible for maintaining fortifications along important trade routes, such as those found at the city of [Buhen](http://en.wikipedia.org/wiki/Buhen) on the way to Nubia. Forts also were constructed to serve as military bases, such as the fortress at Sile, which was a base of operations for expeditions to the [Levant](http://en.wikipedia.org/wiki/Levant). In the New Kingdom, a series of pharaohs used the standing Egyptian army to attack and conquer [Kush](http://en.wikipedia.org/wiki/Kingdom_of_Kush) and parts of the Levant.

Typical military equipment included [bows and arrows](http://en.wikipedia.org/wiki/Bow_%28weapon%29), spears, and round-topped shields made by stretching [animal skin](http://en.wikipedia.org/wiki/Leather) over a wooden frame. In the New Kingdom, the military began using [chariots](http://en.wikipedia.org/wiki/Chariotry_in_Ancient_Egypt) that had earlier been introduced by the Hyksos invaders. Weapons and armor continued to improve after the adoption of bronze: shields were now made from solid wood with a bronze buckle, spears were tipped with a bronze point, and the [Khopesh](http://en.wikipedia.org/wiki/Khopesh) was adopted from Asiatic soldiers. The pharaoh was usually depicted in art and literature riding at the head of the army, it has been suggested that at least a few pharaohs, such as [Seqenenre Tao II](http://en.wikipedia.org/wiki/Seqenenre_Tao_II) and his sons, did do so. although it has also been argued that "kings of this period did not personally act as frontline war leaders, fighting alongside their troops." Soldiers were recruited from the general population, but during, and especially after, the New Kingdom, mercenaries from Nubia, Kush, and Libya were hired to fight for Egypt.

**Technology, medicine, and mathematics**

**Technology**

Main article: [Ancient Egyptian technology](http://en.wikipedia.org/wiki/Ancient_Egyptian_technology)

In technology, medicine and mathematics, ancient Egypt achieved a relatively high standard of productivity and sophistication. Traditional [empiricism](http://en.wikipedia.org/wiki/Empiricism), as evidenced by the [Edwin Smith](http://en.wikipedia.org/wiki/Edwin_Smith_Papyrus) and [Ebers papyri](http://en.wikipedia.org/wiki/Ebers_Papyrus) (c. 1600 BC), is first credited to Egypt. The Egyptians created their own alphabet and [decimal system](http://en.wikipedia.org/wiki/Decimal).

Glassmaking was a highly developed art.

**Faience and glass**

Even before the Old Kingdom, the ancient Egyptians had developed a glassy material known as [faience](http://en.wikipedia.org/wiki/Egyptian_faience), which they treated as a type of artificial semi-precious stone. Faience is a non-clay ceramic made of [silica](http://en.wikipedia.org/wiki/Silicon_dioxide), small amounts of [lime](http://en.wikipedia.org/wiki/Calcium_oxide) and [soda](http://en.wikipedia.org/wiki/Sodium_oxide), and a colorant, typically copper. The material was used to make beads, tiles, figurines, and small wares. Several methods can be used to create faience, but typically production involved application of the powdered materials in the form of a paste over a clay core, which was then fired. By a related technique, the ancient Egyptians produced a pigment known as [Egyptian Blue](http://en.wikipedia.org/wiki/Egyptian_blue), also called blue frit, which is produced by fusing (or [sintering](http://en.wikipedia.org/wiki/Sintering)) silica, copper, lime, and an alkali such as natron. The product can be ground up and used as a pigment.

The ancient Egyptians could fabricate a wide variety of objects from glass with great skill, but it is not clear whether they developed the process independently. It is also unclear whether they made their own raw glass or merely imported pre-made ingots, which they melted and finished. However, they did have technical expertise in making objects, as well as adding [trace elements](http://en.wikipedia.org/wiki/Micromineral) to control the color of the finished glass. A range of colors could be produced, including yellow, red, green, blue, purple, and white, and the glass could be made either transparent or opaque.

**Medicine**

Main article: [Ancient Egyptian medicine](http://en.wikipedia.org/wiki/Ancient_Egyptian_medicine)

Ancient Egyptian medical instruments depicted in a Ptolemaic period inscription on the temple at Kom Ombo.

The medical problems of the ancient Egyptians stemmed directly from their environment. Living and working close to the Nile brought hazards from [malaria](http://en.wikipedia.org/wiki/Malaria) and debilitating [schistosomiasis](http://en.wikipedia.org/wiki/Schistosomiasis) parasites, which caused liver and intestinal damage. Dangerous wildlife such as crocodiles and hippos were also a common threat. The lifelong labors of farming and building put stress on the spine and joints, and traumatic injuries from construction and warfare all took a significant toll on the body. The grit and sand from stone-ground flour abraded teeth, leaving them susceptible to [abscesses](http://en.wikipedia.org/wiki/Abscess) (though [caries](http://en.wikipedia.org/wiki/Dental_caries) were rare).

The diets of the wealthy were rich in sugars, which promoted [periodontal disease](http://en.wikipedia.org/wiki/Periodontitis). Despite the flattering physiques portrayed on tomb walls, the overweight mummies of many of the upper class show the effects of a life of overindulgence. Adult [life expectancy](http://en.wikipedia.org/wiki/Life_expectancy) was about 35 for men and 30 for women, but reaching adulthood was difficult as about one-third of the population died in infancy.

Ancient Egyptian physicians were renowned in the ancient Near East for their healing skills, and some, such as [Imhotep](http://en.wikipedia.org/wiki/Imhotep), remained famous long after their deaths. [Herodotus](http://en.wikipedia.org/wiki/Herodotus) remarked that there was a high degree of specialization among Egyptian physicians, with some treating only the head or the stomach, while others were eye-doctors and dentists. Training of physicians took place at the *Per Ankh* or "House of Life" institution, most notably those headquartered in [Per-Bastet](http://en.wikipedia.org/wiki/Bubastis) during the New Kingdom and at [Abydos](http://en.wikipedia.org/wiki/Abydos%2C_Egypt) and [Saïs](http://en.wikipedia.org/wiki/Sais%2C_Egypt) in the Late period. [Medical papyri](http://en.wikipedia.org/wiki/Medical_papyri) show [empirical knowledge](http://en.wikipedia.org/wiki/Empirical_evidence) of anatomy, injuries, and practical treatments.

Wounds were treated by bandaging with raw meat, white linen, sutures, nets, pads, and swabs soaked with honey to prevent infection, while [opium](http://en.wikipedia.org/wiki/Opium) was used to relieve pain. Garlic and onions were used regularly to promote good health and were thought to relieve [asthma](http://en.wikipedia.org/wiki/Asthma) symptoms. Ancient Egyptian surgeons stitched wounds, set [broken bones](http://en.wikipedia.org/wiki/Broken_bones), and amputated diseased limbs, but they recognized that some injuries were so serious that they could only make the patient comfortable until death occurred

**Shipbuilding**

Early [Egyptians](http://en.wikipedia.org/wiki/Egyptians) knew how to assemble planks of wood into a [ship hull](http://en.wikipedia.org/wiki/Hull_%28ship%29) and had mastered advanced forms of [shipbuilding](http://en.wikipedia.org/wiki/Shipbuilding) as early as 3000 BC. The [Archaeological Institute of America](http://en.wikipedia.org/wiki/Archaeological_Institute_of_America) reports that some of the oldest ships yet unearthed are known as the [Abydos boats](http://en.wikipedia.org/wiki/Ancient_Egyptian_Boats_%28First_Dynasty%29_-_Abydos). These are a group of 14 discovered ships in [Abydos](http://en.wikipedia.org/wiki/Abydos%2C_Egypt) that were constructed of wooden planks "sewn" together. Discovered by Egyptologist David O'Connor of [New York University](http://en.wikipedia.org/wiki/New_York_University), woven [straps](http://en.wikipedia.org/wiki/Strap) were found to have been used to lash the planks together, and [reeds](http://en.wikipedia.org/wiki/Cyperus_papyrus) or [grass](http://en.wikipedia.org/wiki/Grass) stuffed between the planks helped to seal the seams. Because the ships are all buried together and near a mortuary belonging to [Pharaoh Khasekhemwy](http://en.wikipedia.org/wiki/Khasekhemwy), originally they were all thought to have belonged to him, but one of the 14 ships dates to 3000 BC, and the associated pottery jars buried with the vessels also suggest earlier dating. The ship dating to 3000 BC was 75 feet (23 m) long and is now thought to perhaps have belonged to an earlier pharaoh. According to professor O'Connor, the 5,000-year-old ship may have even belonged to [Pharaoh Aha](http://en.wikipedia.org/wiki/Hor-Aha).

Early Egyptians also knew how to assemble planks of wood with [treenails](http://en.wikipedia.org/wiki/Treenail) to fasten them together, using [pitch](http://en.wikipedia.org/wiki/Pitch_%28resin%29) for [caulking](http://en.wikipedia.org/wiki/Caulking) the seams. The "[Khufu ship](http://en.wikipedia.org/wiki/Khufu_ship)", a 43.6-meter vessel sealed into a pit in the [Giza pyramid complex](http://en.wikipedia.org/wiki/Giza_pyramid_complex) at the foot of the [Great Pyramid of Giza](http://en.wikipedia.org/wiki/Great_Pyramid_of_Giza) in the [Fourth Dynasty](http://en.wikipedia.org/wiki/Fourth_dynasty_of_Egypt) around 2500 BC, is a full-size surviving example that may have filled the symbolic function of a [solar baroque](http://en.wikipedia.org/wiki/Solar_barque). Early Egyptians also knew how to fasten the planks of this ship together with [mortise and tenon](http://en.wikipedia.org/wiki/Mortise_and_tenon) joints. Despite the ancient Egyptian's ability to construct very large boats to sail along the easily navigable Nile, they were not known as good sailors and did not engage in widespread sailing or shipping in the Mediterranean or Red Seas.

**Mathematics**

Main article: [Egyptian mathematics](http://en.wikipedia.org/wiki/Egyptian_mathematics)

The earliest attested examples of mathematical calculations date to the predynastic [Naqada](http://en.wikipedia.org/wiki/Naqada) period, and show a fully developed [numeral system](http://en.wikipedia.org/wiki/Numeral_system). The importance of mathematics to an educated Egyptian is suggested by a New Kingdom fictional letter in which the writer proposes a scholarly competition between himself and another scribe regarding everyday calculation tasks such as accounting of land, labor, and grain. Texts such as the [Rhind Mathematical Papyrus](http://en.wikipedia.org/wiki/Rhind_Mathematical_Papyrus) and the [Moscow Mathematical Papyrus](http://en.wikipedia.org/wiki/Moscow_Mathematical_Papyrus) show that the ancient Egyptians could perform the four basic mathematical operations—addition, subtraction, multiplication, and division—use fractions, compute the volumes of boxes and pyramids, and calculate the surface areas of rectangles, triangles, and circles. They understood basic concepts of [algebra](http://en.wikipedia.org/wiki/Algebra) and [geometry](http://en.wikipedia.org/wiki/Geometry), and could solve simple sets of [simultaneous equations](http://en.wikipedia.org/wiki/Simultaneous_equations).

|  |  |  |
| --- | --- | --- |
|

|  |  |
| --- | --- |
|

|  |
| --- |
|  |

 |

 |
| **2⁄3in** [**hieroglyphs**](http://en.wikipedia.org/wiki/Egyptian_hieroglyphs) |

[Mathematical notation](http://en.wikipedia.org/wiki/Mathematical_notation) was decimal, and based on hieroglyphic signs for each power of ten up to one million. Each of these could be written as many times as necessary to add up to the desired number; so to write the number eighty or eight hundred, the symbol for ten or one hundred was written eight times respectively. Because their methods of calculation could not handle most fractions with a numerator greater than one, they had to write [fractions](http://en.wikipedia.org/wiki/Egyptian_fraction) as the sum of several fractions. For example, they resolved the fraction *two-fifths* into the sum of *one-third* + *one-fifteenth*. Standard tables of values facilitated this. Some [common fractions](http://en.wikipedia.org/wiki/Vulgar_fraction), however, were written with a special glyph—the equivalent of the modern two-thirds is shown on the right.

Ancient Egyptian mathematicians had a grasp of the principles underlying the [Pythagorean theorem](http://en.wikipedia.org/wiki/Pythagorean_theorem), knowing, for example, that a triangle had a right angle opposite the [hypotenuse](http://en.wikipedia.org/wiki/Hypotenuse) when its sides were in a 3–4–5 ratio. They were able to estimate the area of a [circle](http://en.wikipedia.org/wiki/Circle) by subtracting one-ninth from its diameter and squaring the result:

Area ≈ [(8⁄9)*D*]2 = (256⁄81)*r* 2 ≈ 3.16*r* 2,

a reasonable approximation of the formula [**π**](http://en.wikipedia.org/wiki/Pi)*r* 2

The [golden ratio](http://en.wikipedia.org/wiki/Golden_ratio) seems to be reflected in many Egyptian constructions, including the [pyramids](http://en.wikipedia.org/wiki/Egyptian_pyramids), but its use may have been an unintended consequence of the ancient Egyptian practice of combining the use of knotted ropes with an intuitive sense of proportion and harmony.

**Legacy**

See also: [Tourism in Egypt](http://en.wikipedia.org/wiki/Tourism_in_Egypt)

Tourists riding a camel in front of Giza pyramids

Tourist at Sphinx, Giza Plateau

The culture and monuments of ancient Egypt have left a lasting legacy on the world. The cult of the goddess [Isis](http://en.wikipedia.org/wiki/Isis), for example, became popular in the [Roman Empire](http://en.wikipedia.org/wiki/Roman_Empire), as obelisks and other relics were transported back to Rome. The Romans also imported [building materials](http://en.wikipedia.org/wiki/Building_material) from Egypt to erect Egyptian style structures. Early historians such as [Herodotus](http://en.wikipedia.org/wiki/Herodotus), [Strabo](http://en.wikipedia.org/wiki/Strabo), and [Diodorus Siculus](http://en.wikipedia.org/wiki/Diodorus_Siculus) studied and wrote about the land, which Romans came to view as a place of mystery.

During the [Middle Ages](http://en.wikipedia.org/wiki/Middle_Ages) and the [Renaissance](http://en.wikipedia.org/wiki/Renaissance), Egyptian pagan culture was in decline after the rise of Christianity and later [Islam](http://en.wikipedia.org/wiki/Islam), but interest in Egyptian antiquity continued in the writings of medieval scholars such as [Dhul-Nun al-Misri](http://en.wikipedia.org/wiki/Dhul-Nun_al-Misri) and [al-Maqrizi](http://en.wikipedia.org/wiki/Al-Maqrizi). In the 17th and 18th centuries, European travelers and tourists brought back antiquities and wrote stories of their journeys, leading to a wave of [Egyptomania](http://en.wikipedia.org/wiki/Egyptomania) across Europe. This renewed interest sent collectors to Egypt, who took, purchased, or were given many important antiquities.

Although the European [colonial](http://en.wikipedia.org/wiki/Colonialism) occupation of Egypt destroyed a significant portion of the country's historical legacy, some foreigners had more positive results. [Napoleon](http://en.wikipedia.org/wiki/Napoleon_I_of_France), for example, arranged the first studies in [Egyptology](http://en.wikipedia.org/wiki/Egyptology) when he brought some 150 scientists and artists to study and document Egypt's [natural history](http://en.wikipedia.org/wiki/Natural_history), which was published in the [*Description de l'Ėgypte*](http://en.wikipedia.org/wiki/Description_de_l%27%C3%89gypte).

In the 20th century, the Egyptian Government and archaeologists alike recognized the importance of cultural respect and integrity in excavations. The [Supreme Council of Antiquities](http://en.wikipedia.org/wiki/Supreme_Council_of_Antiquities) now approves and oversees all excavations, which are aimed at finding information rather than treasure. The council also supervises museums and monument reconstruction programs designed to preserve the historical legacy of Egypt.

**See also**

|  |  |
| --- | --- |
|  | [***Ancient Egypt portal***](http://en.wikipedia.org/wiki/Portal%3AAncient_Egypt) |

* [Outline of ancient Egypt](http://en.wikipedia.org/wiki/Outline_of_ancient_Egypt)
* [Glossary of Ancient Egypt artifacts](http://en.wikipedia.org/wiki/Glossary_of_Ancient_Egypt_artifacts)
* [Index of ancient Egypt-related articles](http://en.wikipedia.org/wiki/Index_of_ancient_Egypt-related_articles)

**References**

* Aldred, Cyril (1988). *Akhenaten, King of Egypt*. London, England: Thames and Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05048-1](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05048-1).
* Allen, James P. (2000). *Middle Egyptian: An Introduction to the Language and Culture of Hieroglyphs*. Cambridge, UK: Cambridge University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-77483-7](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-77483-7).
* Badawy, Alexander (1968). *A History of Egyptian Architecture. Vol III*. Berkeley, California: University of California Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-520-00057-9](http://en.wikipedia.org/wiki/Special%3ABookSources/0-520-00057-9).
* Billard, Jules B. (1978). *Ancient Egypt: Discovering its Splendors*. Washington D.C.: National Geographic Society.
* Cerny, J (1975). *Egypt from the Death of Ramesses III to the End of the Twenty-First Dynasty' in The Middle East and the Aegean Region c.1380–1000 BC*. Cambridge, UK: Cambridge University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-08691-4](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-08691-4).
* Clarke, Somers; R. Engelbach (1990). *Ancient Egyptian Construction and Architecture*. New York, New York: Dover Publications, Unabridged Dover reprint of *Ancient Egyptian Masonry: The Building Craft* originally published by Oxford University Press/Humphrey Milford, London, (1930). [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-486-26485-8](http://en.wikipedia.org/wiki/Special%3ABookSources/0-486-26485-8).
* Clayton, Peter A. (1994). *Chronicle of the Pharaohs*. London, England: Thames and Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05074-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05074-0).
* Cline, Eric H.; O'Connor, David Kevin (2001). *Amenhotep III: Perspectives on His Reign*. Ann Arbor, Michigan: University of Michigan Press. p. 273. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-472-08833-5](http://en.wikipedia.org/wiki/Special%3ABookSources/0-472-08833-5).
* Dodson, Aidan (1991). *Egyptian Rock Cut Tombs*. Buckinghamshire, UK: Shire Publications Ltd. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-7478-0128-2](http://en.wikipedia.org/wiki/Special%3ABookSources/0-7478-0128-2).
* Dodson, Aidan; Hilton, Dyan (2004). *The Complete Royal Families of Ancient Egypt*. London, England: Thames & Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05128-3](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05128-3).
* El-Daly, Okasha (2005). *Egyptology: The Missing Millennium*. London, England: UCL Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [1-84472-062-4](http://en.wikipedia.org/wiki/Special%3ABookSources/1-84472-062-4).
* Filer, Joyce (1996). *Disease*. Austin, Texas: University of Texas Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-292-72498-5](http://en.wikipedia.org/wiki/Special%3ABookSources/0-292-72498-5).
* Gardiner, Sir Alan (1957). [*Egyptian Grammar: Being an Introduction to the Study of Hieroglyphs*](http://en.wikipedia.org/wiki/Egyptian_Grammar%3A_Being_an_Introduction_to_the_Study_of_Hieroglyphs). Oxford, England: Griffith Institute. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-900416-35-1](http://en.wikipedia.org/wiki/Special%3ABookSources/0-900416-35-1).
* Hayes, W. C. (October 1964). "Most Ancient Egypt: Chapter III. The Neolithic and Chalcolithic Communities of Northern Egypt". [*JNES*](http://en.wikipedia.org/wiki/Journal_of_Near_Eastern_Studies) (No. 4 ed.) **23**: 217–272.
* Imhausen, Annette; [Eleanor Robson](http://en.wikipedia.org/wiki/Eleanor_Robson), [Joseph W. Dauben](http://en.wikipedia.org/wiki/Joseph_Dauben), Kim Plofker, J. Lennart Berggren, Victor J. Katz (2007). *The Mathematics of Egypt, Mesopotamia, China, India, and Islam: A Sourcebook*. Princeton: Princeton University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-691-11485-4](http://en.wikipedia.org/wiki/Special%3ABookSources/0-691-11485-4).
* James, T.G.H. (2005). *The British Museum Concise Introduction to Ancient Egypt*. Ann Arbor, Michigan: University of Michigan Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-472-03137-6](http://en.wikipedia.org/wiki/Special%3ABookSources/0-472-03137-6).
* [Kemp, Barry](http://en.wikipedia.org/wiki/Barry_Kemp_%28Egyptologist%29) (1991). *Ancient Egypt: Anatomy of a Civilization*. London, England: Routledge. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-415-06346-9](http://en.wikipedia.org/wiki/Special%3ABookSources/0-415-06346-9).
* Lichtheim, Miriam (1975). *Ancient Egyptian Literature, vol 1*. London, England: University of California Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-520-02899-6](http://en.wikipedia.org/wiki/Special%3ABookSources/0-520-02899-6).
* Lichtheim, Miriam (1980). *Ancient Egyptian Literature, A Book of Readings. Vol III: The Late Period*. Berkeley, California: University of California Press.
* Loprieno, Antonio (1995a). *Ancient Egyptian: A linguistic introduction*. Cambridge, UK: Cambridge University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-44849-2](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-44849-2).
* Loprieno, Antonio (1995b). "Ancient Egyptian and other Afroasiatic Languages". In Sasson, J. M. *Civilizations of the Ancient Near East* **4**. New York, New York: Charles Scribner. pp. 2137–2150. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [1-56563-607-4](http://en.wikipedia.org/wiki/Special%3ABookSources/1-56563-607-4).
* Loprieno, Antonio (2004). "Ancient Egyptian and Coptic". In Woodward, Roger D. *The Cambridge Encyclopedia of the World's Ancient Languages*. Cambridge, UK: Cambridge University Press. pp. 160–192. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-56256-2](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-56256-2).
* Lucas, Alfred (1962). *Ancient Egyptian Materials and Industries, 4th Ed*. London, England: Edward Arnold Publishers. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [1-85417-046-5](http://en.wikipedia.org/wiki/Special%3ABookSources/1-85417-046-5).
* Mallory-Greenough, Leanne M. (2002). "The Geographical, Spatial, and Temporal Distribution of Predynastic and First Dynasty Basalt Vessels". *The Journal of Egyptian Archaeology* (London, England: Egypt Exploration Society) **88**: 67–93. [doi](http://en.wikipedia.org/wiki/Digital_object_identifier):[10.2307/3822337](http://dx.doi.org/10.2307/3822337). [JSTOR](http://en.wikipedia.org/wiki/JSTOR) [3822337](http://www.jstor.org/stable/3822337).
* Manuelian, Peter Der (1998). *Egypt: The World of the Pharaohs*. Bonner Straße, Cologne Germany: Könemann Verlagsgesellschaft mbH. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [3-89508-913-3](http://en.wikipedia.org/wiki/Special%3ABookSources/3-89508-913-3).
* McDowell, A. G. (1999). *Village life in ancient Egypt: laundry lists and love songs*. Oxford, England: Oxford University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-19-814998-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-19-814998-0).
* Meskell, Lynn (2004). *Object Worlds in Ancient Egypt: Material Biographies Past and Present (Materializing Culture)*. Oxford, England: Berg Publishers. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [1-85973-867-2](http://en.wikipedia.org/wiki/Special%3ABookSources/1-85973-867-2).
* Midant-Reynes, Béatrix (2000). *The Prehistory of Egypt: From the First Egyptians to the First Pharaohs*. Oxford, England: Blackwell Publishers. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-631-21787-8](http://en.wikipedia.org/wiki/Special%3ABookSources/0-631-21787-8).
* Nicholson, Paul T. (2000). *Ancient Egyptian Materials and Technology*. Cambridge, UK: Cambridge University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-45257-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-45257-0).
* Oakes, Lorna (2003). *Ancient Egypt: An Illustrated Reference to the Myths, Religions, Pyramids and Temples of the Land of the Pharaohs*. New York, New York: Barnes & Noble. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-7607-4943-4](http://en.wikipedia.org/wiki/Special%3ABookSources/0-7607-4943-4).
* Robins, Gay (2000). *The Art of Ancient Egypt*. Cambridge, Massachusetts: Harvard University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-674-00376-4](http://en.wikipedia.org/wiki/Special%3ABookSources/0-674-00376-4).
* [Ryholt, Kim](http://en.wikipedia.org/wiki/Kim_Ryholt) (January 1997). *The Political Situation in Egypt During the Second Intermediate Period*. Copenhagen, Denmark: Museum Tusculanum. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [87-7289-421-0](http://en.wikipedia.org/wiki/Special%3ABookSources/87-7289-421-0).
* Scheel, Bernd (1989). *Egyptian Metalworking and Tools*. Haverfordwest, Great Britain: Shire Publications Ltd. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-7478-0001-4](http://en.wikipedia.org/wiki/Special%3ABookSources/0-7478-0001-4).
* Shaw, Ian (2003). *The Oxford History of Ancient Egypt*. Oxford, England: Oxford University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05074-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05074-0).
* Siliotti, Alberto (1998). *The Discovery of Ancient Egypt*. Edison, New Jersey: Book Sales, Inc. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-7858-1360-8](http://en.wikipedia.org/wiki/Special%3ABookSources/0-7858-1360-8).
* Strouhal, Eugen (1989). *Life in Ancient Egypt*. Norman, Oklahoma: University of Oklahoma Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-8061-2475-X](http://en.wikipedia.org/wiki/Special%3ABookSources/0-8061-2475-X).
* Tyldesley, Joyce A. (2001). *Ramesses: Egypt's greatest pharaoh*. Harmondsworth, England: Penguin. pp. 76–77. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-14-028097-9](http://en.wikipedia.org/wiki/Special%3ABookSources/0-14-028097-9).
* Vittman, G. (1991). "Zum koptischen Sprachgut im Ägyptisch-Arabisch". *Wiener Zeitschrift für die Kunde des Morgenlandes* (Vienna, Austria: Institut für Orientalistik, Vienna University) **81**: 197–227.
* [Walbank, Frank William](http://en.wikipedia.org/wiki/F._W._Walbank) (1984). *The Cambridge ancient history*. Cambridge, UK: Cambridge University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-521-23445-X](http://en.wikipedia.org/wiki/Special%3ABookSources/0-521-23445-X).
* Wasserman, James; Faulkner, Raymond Oliver; Goelet, Ogden; Von Dassow, Eva (1994). *The Egyptian Book of the dead, the Book of going forth by day: being the Papyrus of Ani*. San Francisco, California: Chronicle Books. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-8118-0767-3](http://en.wikipedia.org/wiki/Special%3ABookSources/0-8118-0767-3).
* Wilkinson, R. H. (2000). *The Complete Temples of Ancient Egypt*. London, England: Thames and Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05100-3](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05100-3).

**Further reading**

* [Baines, John](http://en.wikipedia.org/wiki/John_Baines) and [Jaromir Malek](http://en.wikipedia.org/w/index.php?title=Jaromir_Malek&action=edit&redlink=1) (2000). *The Cultural Atlas of Ancient Egypt* (revised ed.). Facts on File. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-8160-4036-2](http://en.wikipedia.org/wiki/Special%3ABookSources/0-8160-4036-2).
* Bard, KA (1999). *Encyclopedia of the Archaeology of Ancient Egypt*. NY, NY: Routledge. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-415-18589-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-415-18589-0).
* Grimal, Nicolas (1992). *A History of Ancient Egypt* (in German). Blackwell Books. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-631-19396-0](http://en.wikipedia.org/wiki/Special%3ABookSources/0-631-19396-0).
* [Helck, Wolfgang](http://en.wikipedia.org/wiki/Wolfgang_Helck); Otto, Eberhard, eds. (1972–1992). *Lexikon der Ägyptologie*. O. Harrassowitz. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [3-447-01441-5](http://en.wikipedia.org/wiki/Special%3ABookSources/3-447-01441-5).
* [Lehner, Mark](http://en.wikipedia.org/wiki/Mark_Lehner) (1997). *The Complete Pyramids*. London: Thames & Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05084-8](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05084-8).
* [Redford, Donald B.](http://en.wikipedia.org/wiki/Donald_B._Redford), ed. (2001). *The Oxford Encyclopedia of Ancient Egypt*. Oxford University Press. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-19-510234-7](http://en.wikipedia.org/wiki/Special%3ABookSources/0-19-510234-7).
* Wilkinson, R.H. (2003). *The Complete Gods and Goddesses of Ancient Egypt*. London: Thames and Hudson. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-500-05120-8](http://en.wikipedia.org/wiki/Special%3ABookSources/0-500-05120-8).

This page was last modified on 8 April 2013 at 17:05.