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ALIX WILKINSON

SYMBOLISM AND DESIGN IN ANCIENT EGYPTIAN GARDENS

Ancient Egyptian gardens were constructed with many of the features known now from later gardens. But the designers were motivated by religious considerations which dictated the form of the gardens and what plants were used in them.

MEANING, FUNCTION AND FORM

In the creation of gardens, as in the creation of language, three elements are involved: meaning, function, and form. Form is universal: the designer of a garden has to take account of the extent and gradients of the space chosen, and devise a layout. Function, which is the use made of a garden, varies with the status and needs of the owner. The garden may be a place for growing particular plants, or it may be designed to accommodate great crowds, or it may be a space for a few people, or even just one, to sit and enjoy its sights and sounds. Meaning is the philosophy behind the creation of the garden. It can be expressed in statuary, layout, inscriptions, and in the plants, which have significance for the people of the time. Form and function are constant in garden making; meaning was important in earlier centuries. The Countess of Bedford laid out her garden at Twickenham Park in the form of the pre-Copernican universe.¹ Vicino Orsini in the sixteenth century represented his autobiography in statuary in his garden at Bomarzo.² The seventeenth-century labyrinth at Versailles held its own secret message.³ Loudon, in the nineteenth century, believed that landscape gardeners could improve the moral feelings of the visitor.⁴ Gardens were created which told a story, such as Bunyan's *Pilgrim's Progress*,⁵ or the journey from birth to death.⁶ Plants,⁷ symbolic of various human qualities were used in the Medieval and Renaissance periods.⁸ In the latter part of the twentieth century in the West, symbolism⁹ has largely been absent,¹⁰ except in the work of such designers as Sir Geoffrey Jellicoe,¹¹ or as a way of creating atmosphere, although recently a series of essays has been devoted to the meaning of gardens.¹²

INTRODUCTION TO MEANING, FUNCTION, AND FORM IN ANCIENT EGYPTIAN GARDENS

Ancient Egyptian gardens were designed with all three elements, meaning, function, and form in mind. Function, entwined with meaning, dictated form.

The difference between the ancient Egyptian and modern landscapists is that the Egyptians began from the mystical properties of a particular place. Every spot they

selected for a sacred building was where a deity was believed to reside. They also re-created the characteristics of the place where some mythological event had happened, by adding architectural and plant features which would be reminders of the myth. These myths were about the creation of the world, the after-life, and about the lives of the gods. The Egyptians were not searching to impose meaning, in the manner of those who created a park in Mexico City as a cultural reminder of the lost city of Tenochtitlan.¹³ Nor were they like the English garden designers of the eighteenth century who used classical mythology and their Gothic heritage as the language of their buildings and statuary, as, for example, at Rousham.¹⁴ Meaning was already there, and understood. They were more in the spirit of Henry Hoare, who, at Stourhead, whether playfully or not, acknowledged the water deities of the site and compared the foundation of his dynastic home with Aeneas's foundation of Rome, as interpreted by Virgil.¹⁵

In Egypt, the territory in which a garden was planted already had its own significance and resident deities. Thus the goddess Hathor was believed to dwell in the mountain chain which ran from Deir el Bahari to Deir el Medineh. Shrines dedicated to her were built over the years at each end of the range, north and south. At Karnak, across the river, the gods, Mont, a falcon-headed war god, and Amun, called the 'Hidden One', already inhabited the site on which the temples and gardens were built.

A garden mirrored the features of a mythological landscape, and of the world of the after-life. This landscape had to be as permanent as possible, and sustainable by future generations. It was a marvel which would impress the priests and courtiers who would understand the symbolism, and amaze the general populace and foreigners who would be awed by the size and splendour of the buildings and their grounds. The palaces in which the kings lived were also sacred precincts, because the king was himself a god. Palace gardens were the setting for the ceremonial reception of foreign ambassadors as well as for the entertainment of the king and the court.

Tomb gardens were intended to be places where the soul of the dead could find rest and refreshment. The form which resulted from these requirements was a courtyard filled with trees, under which stood a basin of water for the soul, as bird or human, to drink.

MEANING

The symbolism of temple gardens

Meaning was fundamental to Egyptian architecture and garden design. The design of temple gardens depended on whether they were the cult temple, where the images of the living gods resided, or were funerary, and were intended for occasional use. Gardens were an integral part of the cult shrine, which was itself a cosmos, representing both Egypt and the universe.¹⁶ Temple gardens incorporated water, which represented the original water which covered the earth at the beginning of time, and was the god called Nun, and the vegetation which grew around and in it.

The plants grown in these gardens all had their own symbolism. The waterlilies (*Nymphaea lotus*, *Nymphaea caerulea*) floating on the lakes were reminders that the sun god had originally sprung from the waterlily,¹⁷ and papyrus (*Cyperus papyrus*) was the home of Hathor,¹⁸ the sky, and mother goddess, and was also the place where Isis had hidden her son, Horus, after the murder of Osiris, her husband, by his brother, Seth. Palms were sacred to the gods of the sun, moon, and fertility.¹⁹ Date palms (*Phoenix dactylifera*) were particularly connected with the sun god, doum palms (*Hyphaene*

thebaica) with the scribe of the gods, Thoth, and with Min, the fertility god. Another of Min's plants was the humble lettuce (*Latuca sativa*).²⁰

The symbolism of tomb gardens

Tombs were based on the design of the tomb of the god, Osiris, who had been restored from death to life. By imitative magic, the human dead could enter eternal life by being buried in a tomb like that of Osiris. This tomb consisted of a mound of earth with trees around it, enclosing a tomb chamber (Figure 1). An actual realization of this concept was made at Abydos by King Seti I. It is a temple-like structure on an island, with a tomb beside it, buried under a great mound of earth and sand. Around

the mound were planted conifers and tamarisks in six, huge brick-lined pits. A tamarisk was believed to be the place where the soul of the god, Osiris, in the form of a bird, rested (Figure 2). It was also

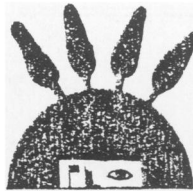


Figure 1. Illustration of the tomb of the god Osiris within a mound. On the coffin of Petosiris in Marseilles

Source: Jacques Vandier. *Manuel d'archéologie égyptienne* (Picard, Paris, 1952–69), fig. 319

believed to be where the king as the sun was reborn.²¹ According to the solar myths, the dead king became the sun, which the sky goddess swallowed each night and gave birth to each dawn. King Mentuhotep (c. 2010–1960 B.C.) planted tamarisks (*Tamarix articulata*) and sycomore-fig trees (*Ficus sycomorus*) in front of his tomb and funerary temple at Deir el Bahari (Figure 3). Sycomore-fig trees were the home of the sky-goddess, called alternatively, Hathor, Nut, and Isis. On the eastern horizon of heaven, the sun emerged between sycomore-figs of turquoise.²² The sycomore tree had another role, as nourisher of the deceased (see Figure 8). In paintings in courtiers' tombs, the sky-goddess appears from the sycomore-fig tree at the corner of a pool, holding out bread and fruit and pouring water. Mentuhotep thus made sure that the two trees significant for his rebirth as the sun were beside his tomb. Date palms represented the sun, and had the practical advantage of being able to withstand drought. Single palm trees and flowerbeds were planted in the open courtyards of priests' and courtiers' tombs at Memphis and Thebes.

The meaning and message of the gardens was frequently in the sculpture, both in the round and in relief, which represented the owner in various guises and performing various activities. The sculptures intimated things historical and mythological. The things historical were the relation of the owner to his ancestors, and the things mythological were about the relationship of the owner to the gods. The owner appeared in various guises, and performed various activities, both in sculpture in the round and in scenes of relief. In tomb gardens, a statue represented the owner himself. It was the living presence of the deceased, and had to receive the attention and respect due to him. Over life-size figures of Mentuhotep stood in front of the avenue at his funerary temple at Deir el Bahari. They were fixed into the rock by means of deep pedestals which were buried in the rock. Lion-bodied sphinxes, with the face of Queen Hatshepsut, lined the way across the lowest terrace of her funerary temple beside that of Mentuhotep at Deir el Bahari.

The status of the owner is demonstrated by the size of the garden and its enclosure, and by the size and splendour of the buildings and their decoration. Royal gardens were much larger than those of anyone else: Mentuhotep's grove at Deir el Bahari was about 50 m square: a garden at el-Amarana covered an area of about a length of 196 m.

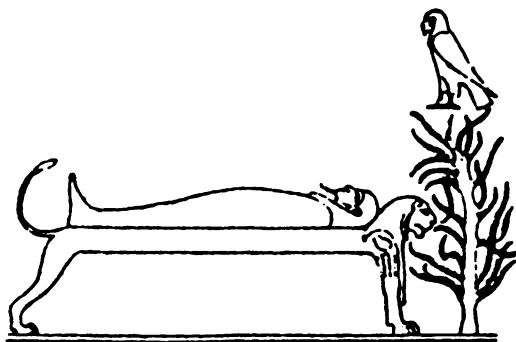


Figure 2. The soul of Osiris in the form of a bird perched in a tamarisk. In the temple of Hathor at Dendera

Source: Jacques Vandier, Manuel d'archéologie égyptienne (Picard, Paris, 1952–69), fig. 319

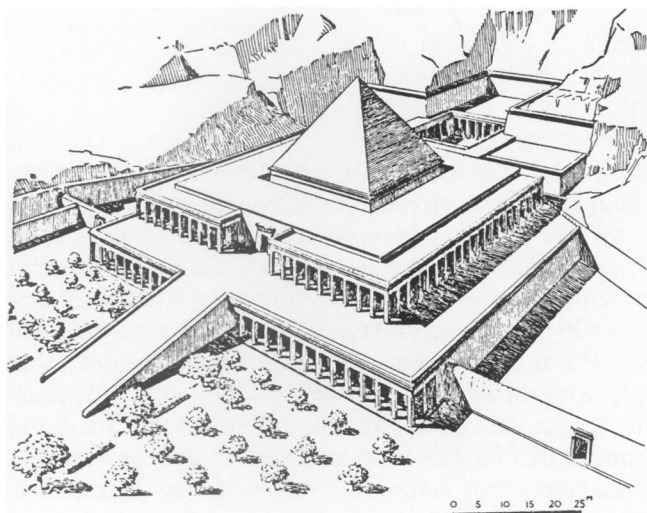


Figure 3. Reconstruction of the trees in front of Mentuhotep's funerary temple

Source: E. Baldwin Smith, Egyptian Architecture as a cultural expression (New York, 1938)

The royal dominance over nature is demonstrated by bringing plants into the desert, rather than by draining areas of marsh, as for example, at Versailles, or carving out a clearing in a forest.

Summary

Temples were not, as in eighteenth-century Europe, 'trifles best seen by chance'.²³ but the main building, and *raison d'être* of the garden. Statuary and sculpture were not just decorative features. They were bearers of religious as well as political messages.

FUNCTION

The function of temple gardens was to produce the floral, vegetable, and fruit offerings needed for the rituals of the gods, as well as for the perfumes used for anointing the statues, and to provision the staff of priests and workpeople in the temple.²⁴ Hatshepsut and some of her successors tried to grow incense trees, *Commifora myrrha*, and possibly *Boswellia sacra*, in their gardens.²⁵ Hatshepsut said she brought 'green *anty*' trees from Punt (Figure 4). 'Green *anty*' has been identified both with myrrh²⁶ and with frankincense. The space provided by gardens was used for processions within the temple

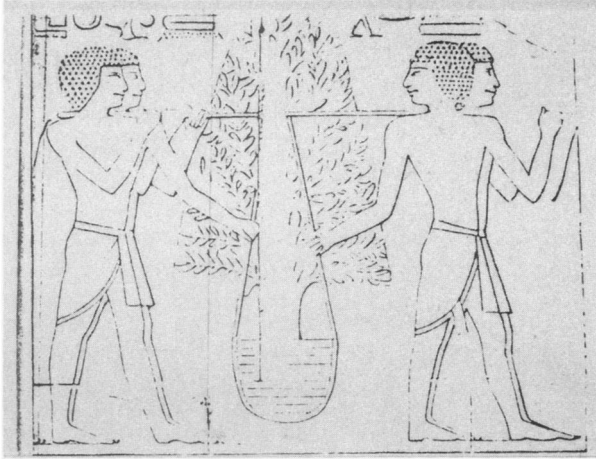


Figure 4. Incense trees brought to Egypt from Punt

Source: Edouard Naville, *The Temple of Deir el Bahari* (London, 1894–1908), III

enclosure, and had to accommodate large gatherings of priests and attendants. At Amarna there was a walled park-like area, called *Maru-Aten*, which may have been an open-air temple. It had a central lake, surrounded by temples and other buildings. This enclosure may have represented earth, and on the lake, oriented east–west, the route of the sun could have been enacted with a boat rowing between a small temple and a jetty.

The avenues between temples formed the processional route for festivals, such as at New Year,²⁷ or the Feast of Opet, when the statues of the national deities inhabiting the temple of Karnak, Amun, Mut, and Khonsu, were carried by priests, accompanied by an excited throng, to the Luxor temple. At the Festival of the Valley,²⁸ the gods of Karnak sailed across the river, so that the statues of the ‘living gods’ could visit the ‘dead gods’ in the funerary temples on the west bank of the Nile. In order to reach Hatshepsut’s temple at Deir el Bahari the procession would go from her riverside Valley Temple, which was probably also surrounded by trees,²⁹ along a tree-lined canal to her funerary temple.

Menageries were included in gardens. Live animals in the royal gardens reflected the king’s ambition to collect the living world around him, and to have animals of particular significance as his attendants. Lions, the royal animal *par excellence*, decorated his throne and chariot. Lions were kept in cages at the entrance to royal gardens at Karnak (see Figure 12), and antelopes, oryx, and ibex were kept at Karnak and Amarna. Aviaries were probably part of the garden design at Amarna in the ‘Northern *Maru*’. Birds illustrated at Amarna, and presumably living in the gardens, included rock pigeon, turtle dove, great spotted cuckoo, grey-lag goose, pied kingfishers, geese, and ducks. Ducks and geese were ornaments as well as being edible, as were the fish. Animals were bred at various temples. Some were the animals sacred to the deity of the temples, such as rams at Mendes and Elephantine, bulls at Memphis, Bubastis, and Akhmim, and pigs at Memphis. Others were needed for the offerings in the temple. During the Old Kingdom (2600–2150 B.C.) birds were reared at the sun temple of Niuserre. Kings arranged for the construction of fowl-yards in the temple of Amun at Karnak. Seti II said the temple was, ‘filled with geese, cranes, ducks, doves and [other kinds of fowl] to provide the divine offerings for his father Amun’. In the later periods, they were reared so that pilgrims could offer them as sacrifices to the deity of the temple. Mummified ibises, have been found in huge numbers at Saqqara, Hermopolis, Athribis, and Abydos, and cats, apes,

and crocodiles, at Tuna el Gebel, Mareotis, and in the Fayum. Shrines of the crocodile god, Sobek, are illustrated from the Old Kingdom up to the Ptolemaic period. Temples of Sobek are known at several places including Kom Ombo, Edfu, and Hermonthis (Armant), where the water-pen for the crocodiles had a movable hatch through which they were fed.

The function of temple gardens was to provide floral, vegetable, and animal offerings and provisions, whereas the function of tomb gardens was to be available to the spirit of the deceased as a place of shade and refreshment, and to that end they were often illustrated on the walls inside the tomb. The external garden was the place to which relatives and priests could bring water and offerings for the spirit of the deceased.

FORM

Garden design in general

Since they are at the beginning of the story of garden-making, and set the agenda in form for gardens throughout the Near East and beyond, ancient Egyptian gardens have many of the features well known from later times. The glory of gardens depends on their design, on the way they are laid out and structured, and on the decorative features, skilfully placed to enhance a view or evoke ideas. After these foundations have been laid, the planting brings colour, light, and shade, and variations in height. Ancient Egyptian gardens were no exception.

Egyptian gardens were formal.³⁰ They were axially planned, as for example, Hatshepsut's funerary temple at Deir el Bahari which was approached by a series of rising courtyards. A building, whether tomb or shrine, was the focus and point of departure. The unity of the building and the gardens was usually evident. Straight lines predominated in the design and in the plantings. Symmetry is found in the repetition of like with like. For example, twin groves, twin trees, and twin pools. Geometry is exemplified in the arrangement of rectangles within a garden. In the illustration which survives of a garden at Karnak, the layout consists of a rectangular walled area in the centre of which is a vineyard (Figure 5) surrounded by walled gardens, some of which are orchards, and some of which have pools and a shrine. Identical trees were planted in avenues at the funerary temple of Mentuhotep at Deir el Bahari, and on the approach to the temple of Karnak, where there was an avenue of sycamore-fig trees, underplanted with vines and papyrus (Figure 6).

Elements of the designs

Gardens were laid out with a strong structure, making use of different levels linked by terraces, and often centred around pools of water. Steps and stairways emphasized changes in levels and viewpoint. Terraces, which 'can be the supreme expression of garden art',³¹ had balustrades supporting the steps linking the different levels, as, for example, at Queen Hatshepsut's temple at Deir el Bahari. Trees were grown on the lowest terrace.³² At the bottom of the ramp, around the papyrus pools were about 66 pits cut in the rock, probably for flowerbeds,³³ rather than for the incense trees brought from Punt.³⁴ It is not certain where these were planted. The garden of the 'King's House' at Amarna was terraced,³⁵ as is an estate at Karnak (see Figure 12).

Areas with their own individuality were separated by walls or trees. Within these areas, arcades and colonnades provided a variety of textures and a background for plants.

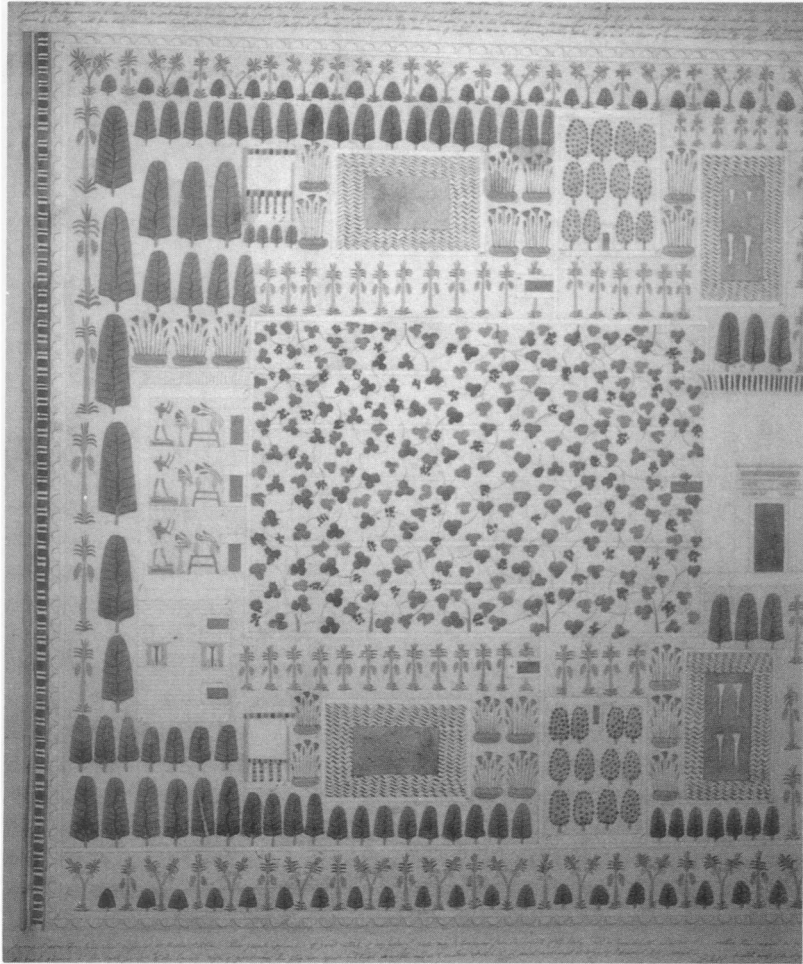


Figure 5. The garden illustrated in the tomb of Sennufer TT 96. Painting made by Dr Ricci for Henry Salt. *Courtesy of the Trustees of the British Museum*

Photo: author

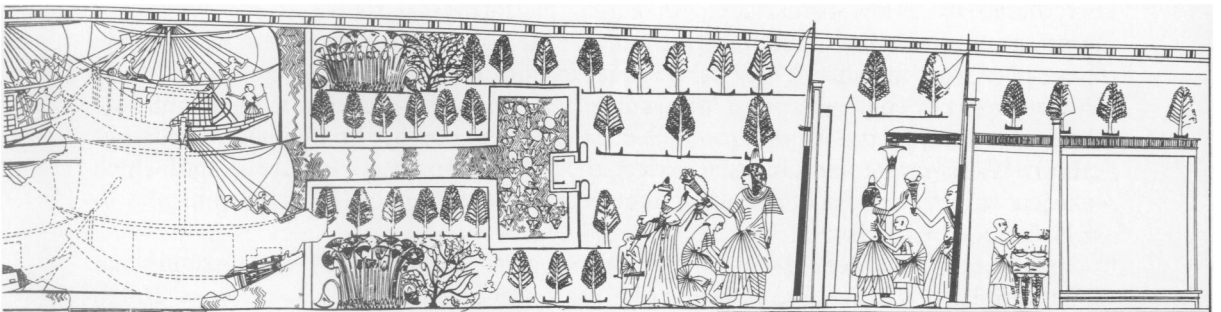


Figure 6. The approach to the temple of Karnak.

Source: Norman de Garis Davies, The Tomb of Nefer-Hotep at Thebes (New York, 1948)

Sunken *atrium* gardens inside buildings have been found in excavations in four ceremonial areas at Amarna: in the 'central palace', inside garden buildings in the open air temple, the *Maru-Aten*, in the 'Northern Maru', and at the site to the south of the city, called Kom el Nana. Courts with pools and flowers around them beside dining rooms and bedrooms in the palace at Amarna are illustrated in several officials' tombs (Figure 9). These floral representations may be painted pavements, actual examples of which were found at Amarna.

Vistas were controlled by avenues, and concentrated the eye on a particular view. From the funerary temples on the west bank at Thebes, the vistas converged on the Nile, and beyond it on the temple of Karnak. Equally, a procession leaving Karnak would have its sights set on the temples at Deir el Bahari.

Constituents within a garden

Water was the central feature of many gardens. The temple lake was not only the water source for the temple, but was the place where rituals were performed, such as taking the statue of the deity out in a boat. On the pathway beside the lake, processions passed on various festivals such as for the Burial of Osiris at Karnak.³⁶ Some temple lakes were very large, the one at Karnak measured 132 by 80 m. The lake in the *Maru-Aten*, at Amarna was 120 m by 60 m. Other temple-lakes were smaller: 33 m by 28 m at Dendera, or 18 m by 20 m at the Eighteenth-Dynasty temple at Medinet Habu. The king was rowed on a lake in a special barge as part of a religious ceremony,³⁷ and after his death his statue was rowed out on memorial days.³⁸ Private gardens sometimes contained lakes. Officials described the extensive lakes on their properties,³⁹ and a lake large enough for a boat to travel on is illustrated beside Dhutnufer's house (Theban Tomb 80). People valued pools as sources of refreshment and coolness. In them they bred fish and birds for food. There were also cisterns, which stored water for supplying the plants in the gardens. Pools were stepped, so that the water could be reached when the pool was nearly dry (Figure 7). The edges of some pools provided terraces for marsh plants. The shapes of pools were rectangular and T-shaped. The T-shape was the form in which the channels in front of temples were arranged as landing areas. The T-shape also reflects the form of a place where offerings were made (Figure 8). It is this meaning which explains the shape of the pools beside the ramps in the courtyard of Hatshepsut's temple at Deir el Bahari. These pools were filled with growing papyrus, indicating the point where the goddess Hathor, as a cow, appeared out of the mountain.

One of the features illustrated in the wall-paintings is a ceremonial landing platform surrounded by a low balustrade. An actual platform was found at the temple of Ramesses III, at Medinet Habu, jutting out into the pool in front of the temple gateway. These platforms foreshadow the lakeside jetties still remaining in Moghul gardens.⁴⁰ Bridges have not survived, but a long, stone-built quay was found jutting out into the lake at Amarna, in the *Maru-Aten*.⁴¹ Such a jetty remains in the Shalamar garden at Lahore. Water was brought in canals to feed the gardens, and was a feature around which a garden was created. A pond marked a focus of interest, sometimes a garden kiosk was set beside it (see Figure 5).

Buildings in gardens were the dwelling of gods, whether they were magnificent stone temples covering several acres, like the temple of Amun at Karnak, or small, stucco-covered brick shrines in the gardens of private houses. Buildings could simply be bowers made out of papyrus, or pleasure pavilions providing shade and somewhere to sit,

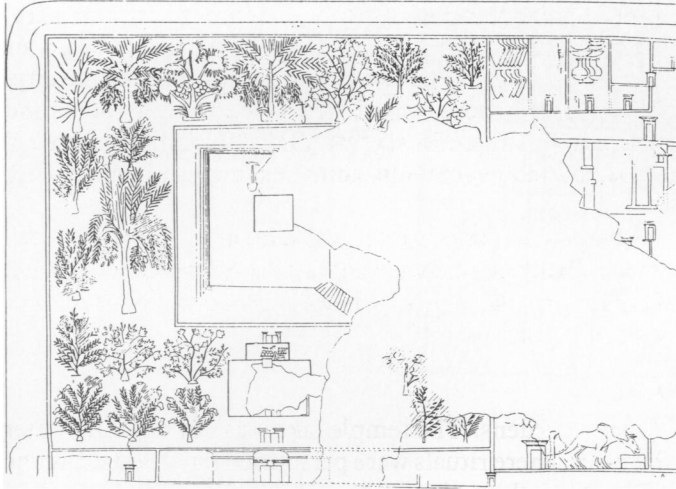


Figure 7. Cistern with stepped sides in an orchard. Relief in the tomb of Meryre at Amarna
 Source: Norman de Garis Davies, *The Rock Tombs of El Amarna* (London, 1903–08)

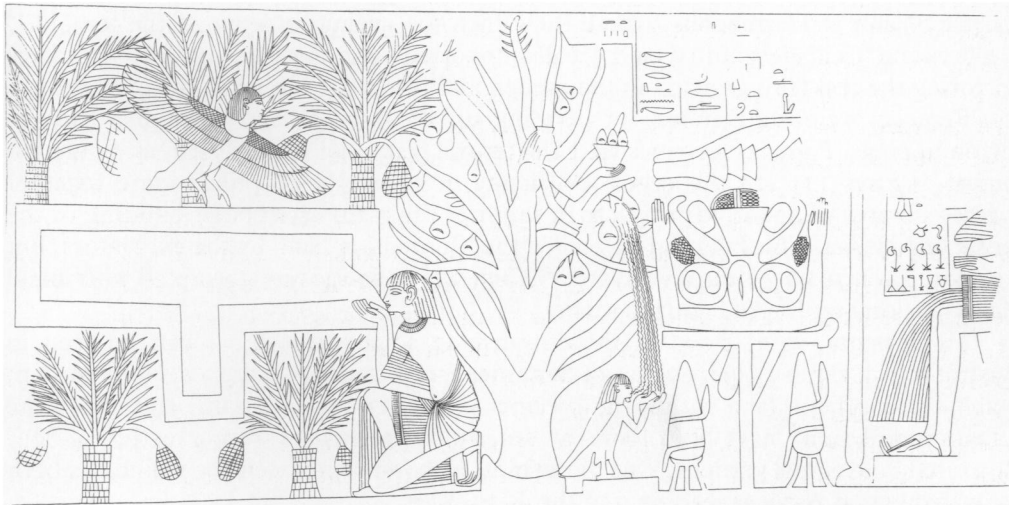


Figure 8. T-shaped pool painted in the tomb of Tjanefer. Theban Tomb 158
 Source: Keith Seele, *The Tomb of Tjanefer* (Chicago, 1959) pl. 11. Courtesy of the Oriental Institute of the University of Chicago

or make love,⁴² or give birth.⁴³ Such garden pavilions survived in Cairene gardens until at least the time of Napoleon's expedition (Figure 10). Shrines along the route between the Karnak and Luxor temples on the east bank of the Nile were surrounded by their own gardens. The route itself, by the time of the Thirtieth Dynasty, was 'a magnificent avenue enclosed within walls planted with trees made dazzling with flowers'⁴⁴ and lined with recumbent stone sphinxes. The pits for the trees, the canal and the sphinxes have been found in excavation.⁴⁵

Excavations show that gardens were usually walled. High, plastered walls, sometimes with painted or tile decoration, hid the participants taking part in processions from the stares of the vulgar. Painted and tiled walls in gardens continued up to the eighteenth

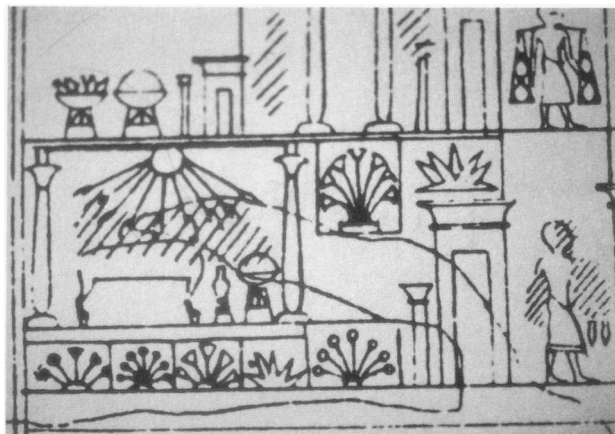


Figure 9. The royal couch beside flowerbeds. Over the bed, the many-handed sun spreads out over the canopy. Relief in the tomb of Parennefer

Source: Norman de Garis Davies, *The Rock Tombs of El Amarna* (London, 1903–08)

century in Portugal.⁴⁶ Sometimes walls were serpentine (sinuous)⁴⁷ and may have provided protective surfaces for growing fruit trees. Serpentine walls have been found at Karnak,⁴⁸ and at Hermopolis, where they lined the avenue in front of the temple.⁴⁹ Trellises and 'treillage' painted on the walls supported tempting vines and pomegranates mirroring the real fruit growing in the garden and providing a kind of *trompe l'oeil*.

Pergolas were another way of dividing up the garden, and were also used to surround pools. Pergolas for vines were the central feature of several gardens painted in tombs (Figures 11, 12). A pergola consisting of square brick pillars close together covered an area of about 70 m by 120 m south of the main ceremonial building in the centre of Amarna. This building was called the 'Coronation Hall' by the excavators, but it is more likely to have been a vineyard.⁵⁰ The walls or floors were decorated with inlaid tiles with floral motifs and aquatic scenes.

Monumental gates stood at the entrance to some gardens, as can be seen in illustrations in tombs, such as that of Sennufer (see Figure 5). Gateposts of a garden, which surrounded a lake within the precinct of the temple of Amun, and called the 'Libation of Amun', have been found at Karnak.⁵¹ Gatehouses were a feature of both illustrated, and actual gardens. One of the most elaborate and extensive which has been excavated was at Amarna leading into the *Maru-Aten*.

A sacred tree, or grove of trees, was grown in its own enclosure in some temples, such as at the temple of Hermopolis during the Middle Kingdom, or in Ptolemaic times, at Medamud. A special tree was given prominence in others, as in the funerary temple of Mentuhotep at Deir el Bahari, where a particular sycomore-fig sheltered an altar and a statue of the king. There was a grove of sycomore-fig trees, sacred to the goddess Hathor, at Deir el Medineh. Each tree was planted in its own container, or in a pit, so that it could be individually watered. At temples up and down the river, trees were brought into the courtyards, enhancing the stone-imitative plant elements with natural vegetation. Inside the court of the Roman temple of Khnum at Elephantine, real palm trees grew up in front of stone imitations of papyrus, lotus, and palms.⁵²

The terrain in which gardens were made

In order to create these magnificent gardens the Egyptian designers had to deal with two potentially overwhelming elements: the desert and the river. In the desert there was too

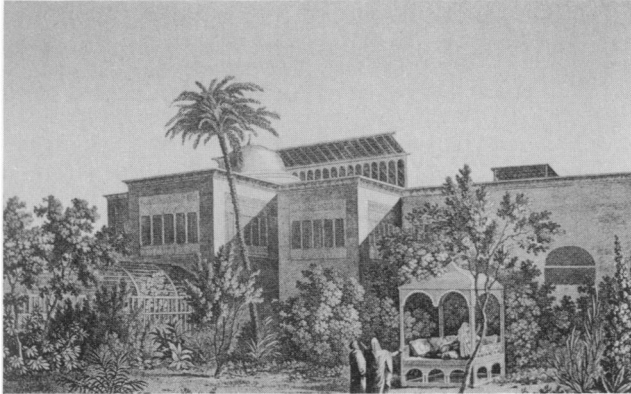


Figure 10. Pavilion in the garden of Elfy Bey

Source: *Description de l'Égypte*, 1 (Réédition Michel Sidhom, Paris, 1990).



Figure 11. Vineyard in the garden of the palace of the Queen of Pharaoh Ay

Source: Norman de Garis Davies, *The Tomb of Nefer Hotep at Thebes* (New York, 1933)

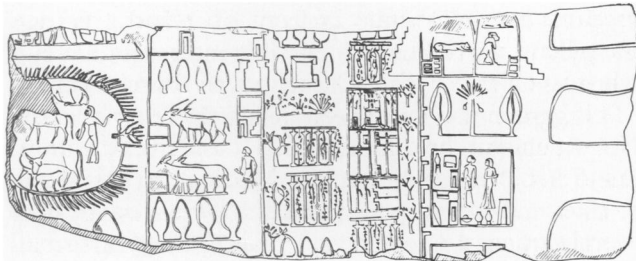


Figure 12. An estate at Karnak with lions' cages, a gatehouse, a vineyard, trees and an animal enclosure illustrated on a relief block

Source: P. Anus, *Bulletin de l'Institut Français d'Archéologie Orientale* 69 (1970)

little vegetation; and along the river bank there was too much. On the slopes of the western mountain at Thebes, the architects were trying to extend the river bank into the desert, and had to do it by artificially providing water. This mountain was the site of the royal funerary temples and courtiers' tombs. Here the dead rested 'Upon the Crag of the Lady who is the West of Thebes'.⁵³ This was seen by the Egyptians as a hard, hilly desert, scattered with the round-topped markers of many tombs, with somewhere a lush

papyrus marsh were poppies also grew, into which the sky goddess, as a cow, stepped to welcome the dead, who were inside their tombs in the tall, pink rock beside these markers.⁵⁴

Landscape of the west bank at Thebes

The Egyptians created buildings and gardens which were integrated with the surrounding natural scenery. The royal funerary temples were ranged along the hillside with their backs to the mountain and their gardens stretching down into the plain. This layout is the same as that at the Taj Mahal which also has the tomb-pavilion at one end of the central axis.⁵⁵ During the Eighteenth Dynasty, the gardens formed terraces of trees against the desert mountain backdrop. Sycomore-fig and *Mimusops laurifolia* grew below Hatshepsut's great funerary temple in deep pits cut in the rock. Date and doum palms stood in individual courtyards of the private tombs on the lower slopes of the hillside during the Eighteenth and Twenty-Sixth Dynasties. The decoration on the walls of some of these courts shows that trees and flowers were planted in the place to which offerings were brought. Further south, in front of the same mountain range, this landscaping was continued. The funerary temple of Tuthmosis III may have been approached by a canal ending in a rectangular pool in front of a monumental gateway. A canal led from the river to Amenophis III's temple, in front of which was a great lake full of plants, and deep enough for boats to sail on, taking the statues of the dead king and queen on ceremonial voyages. This lake would have spread out in front of the colossi of Memnon, which were statues representing the king, which stood in front of the pylonic entrance to the temple. Behind the temple of his royal master, was the funerary temple of the royal architect, Amenophis son of Hapu, one of the very few courtiers allowed a temple actually among those of the kings. On the lower terrace in front of the temple, trees surrounded the pool.⁵⁶ Away across the desert lay the huge lake of Birket Habu surrounded by profuse vegetation; and the palace of Amenophis III which had its vineyards and orchards around it.⁵⁷

In the Nineteenth Dynasty the landscape below the mountains was probably still as lush, although later kings pillaged Amenophis III's funerary temple of its statuary and building material in order to create their own monuments.⁵⁸ Ramesses II's (1279–1213 B.C.) funerary temple, the Ramesseum, had an avenue in front of it and a garden flanking a canal, inside, between the pylons, according to a possible interpretation of a painting in the tomb of the official who was Overseer of the Gardens of the Ramesseum in the Estate of Amun, Nezemger.⁵⁹ This garden may have been inside the temple on the southern side of the second court. No evidence of the canal has been found in excavation. In front of Ramesses III's (1187–1156 B.C.) funerary temple, Medinet Habu, at the southern end of the sweep of trees, lakes and funerary monuments, were a canal, pool and trees. Inside the temple were several gardens around pools. In succeeding years small funerary chapels were built behind Medinet Habu, with trees in the courts at the entrances, imitating the plantings in the great temple. Somewhere on the mountainside, and now lost, was the funerary temple of Tuthmosis I where, during Ramesside times, his memorial rites were celebrated on a tree-lined lake, according to a painting in the tomb of Userhat.⁶⁰ The temples, with their gardens, lakes and canals, were in living and verdant contrast to the desert and rocky scarp of the mountain. They lasted — collectively, though not all at one time — from the reign of Hatshepsut, at least until the death of Ramesses III; a period of more than 300 years, during which time they were

tended and visited by their own priests, and by the priests and courtiers from the temple of Amun at Karnak, as well as by the general populace who took part in the festivals.

On the east bank of the river the landscape was just as verdant. The main temples of Karnak and Luxor had gardens inside and out.

Landscape of Amarna

At Amarna, the site sacred to the sun god, the desert plain was made green by parks at either end; and temples, palaces and houses with their own gardens filled the built-up area. At the southern end was the vast open-air temple, and at the northern end, another more enclosed temple or palace, with a garden in the centre. In between these parks, lay clusters of buildings with avenues leading up to them, and gardens around them, some of them with pools. In the suburbs, the gardens surrounding a few of the great houses formed oases between the whitewashed buildings. The river bank, where ships unloaded in front of the palace, was planted with trees and flowers in containers, and a flower bed, beside the naturally growing papyrus and mandrake.⁶¹ The effect from the landing stage must have been of the river bank creeping towards the eastern mountain.

Landscape around Memphis

At Heliopolis, Ramesses III decreed that date and olive groves be established, and ordered gardens and incense trees to be planted at Memphis.⁶²

Whether the pyramids at Giza had any trees or gardens around them is not known, although there is the suggestion of a garden between the Step Pyramid and the Causeway of Unas. At the river end of the causeways there was plenty of vegetation, but that was not contrived by man.

Landscape of the Delta

In the much more fertile Delta, a vast orchard and vineyard surrounded the palaces and temple at Avaris (Tell Dabaa) and Pi-Ramesses. Ramesses III ordered the planting of orchards here, and at many religious centres.

ANCIENT DESIGNERS AND CLASSIFICATIONS OF GARDENS

Garden Designers

Ancient Egyptian gardens were made by architects, some of whom are known by name: Senenmut, who advised Queen Hatshepsut, and Amenophis, son of Hapu, who designed Amenophis III's (1390–1353 B.C.) monuments, are two of the most famous. The names of some individual workers in the gardens are also known.

The ancient Egyptians classified their gardens by their form, by what they grew, and by the buildings to which they were attached. Forms could be a piece of ground divided into squares for cultivation, an open terraced area, a sunken or level peristyle or atrium within a building, or a park, which might contain a pool. Gardens could also be described by the plants which grew in them, such as vegetable gardens, olive groves, fruit orchards, vineyards, groves of incense trees, and trees for use in carpentry. There were words for describing the gardens of specific buildings: of tombs, palaces, and temples, and of estates, both of the living, and of the dead.⁶³ Gardens had individual names, just as buildings had names. The garden created by Akhenaten (1353–1336 B.C.) at Amarna for the globe of the sun, the Aten, was called 'The Seeing-Place of the Aten'. And the shrines

with gardens on the route between the Karnak and Luxor temples had names like 'Hatshepsut is united with the perfection of Amun'.

Summary

The sacred gardens of ancient Egypt at Thebes and Amarna were decorated with many of the garden features which survived through Roman and Islamic times, and became fashionable in eighteenth-century Europe. The power and splendour of the ruler were demonstrated in extensive gardens in front of their funerary temples at Deir el Bahari, and in and around the temple of Amun at Karnak. At Amarna, in the *Maru-Aten*, there was a large artificial lake, an ornamented quay, temples, garden walks, avenues, a gatehouse, and maybe even a banqueting house. Its companion garden, the 'Northern *Maru*', included a sunken *atrium* garden and a menagerie, as well as a central pool and small shrines.

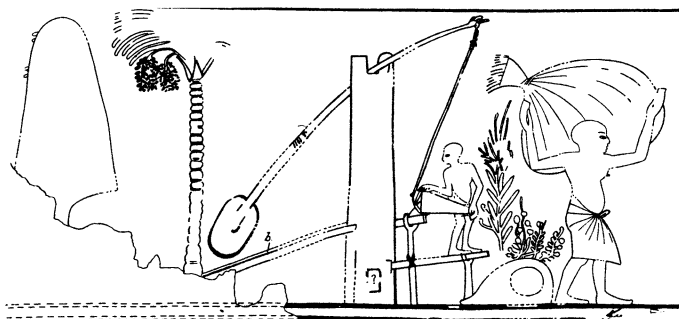


Figure 13. A gardener pouring water from the bucket of the shaduf into a runnel which leads into the brick container holding a date palm

Source: Norman de Garis Davies, *The Tomb of Nefer Hotep at Thebes* (New York, 1933)

Ancient Egyptian landscape gardeners created lavish plantations at temples and city sites. Great sweeps of desert, covering over a mile at a time, were kept full of trees. The Egyptians' main practical problem was connected with the control and provision of water, which they managed to overcome by creating canals and pools inside, and in front of, their buildings, and by the constant use of the shaduf and bucket (Figure 13). The gardeners' success was spectacular, and sustained over many hundreds of years.

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REFERENCES

1. Roy Strong, *The Renaissance Garden in England* (London, 1979), p. 120.
2. Lynette M. F. Bosch, 'Bomarzo: A study in personal imagery', *Garden History* 10:2 (1982), p. 107.
3. Michel Conan, 'The conundrum of Le Nôtre's *Labyrinthe*', in *Garden History, Issues, Approaches, Methods* edited by J. Dixon Hunt

(Dumbarton Oaks Research Library and Collection, Washington, D.C., 1992) pp. 119–51.

4. James Stevens Curl, 'John Claudius Loudon and the garden cemetery movement', *Garden History*, 11:2 (1983), p. 137; in the eighteenth century, Henry Home, *Elements of Criticism* (1762), had maintained that the 'art of gardening' was 'capable of stimulating more widely diverging emotions

than architecture', quoted by Lucia H. Albers, 'The perception of gardening as art', *Garden History* 19:2 (1991), p. 170; and William Chambers believed with others in the latter part of the eighteenth century that 'beautiful or sublime gardens should have an effect on the emotions', David Jacques 'On the supposed Chineseness of the English Landscape Garden'. *Garden History* 18:2 (1990), p. 185.

5. R. C. Turner, 'Mellor's Gardens', *Garden History* 15:2 (1987), pp. 157–66, at Hough-Hole House, Rainers, Macclesfield, which was based on ideas of Swedenborg (1688–1772) being a 'garden of correspondence relating to things of this world and scriptural history'. It originally contained plants mentioned in the Bible. Collections of plants mentioned in the Bible have been made in this country (and in Jerusalem) by Dr Nigel Hepper and are to be found in several gardens in the United States.

6. John Colleran, and Eileen McCracken, 'The Japanese Garden, Tully House, Kildare', *Garden History* 5:1 (1977), pp. 35–38.

7. Claudia Lazzaro, *The Italian Renaissance Gardens* (1991), reviewed by Vanessa Stephen, *Garden History* 20:1 (1991), p. 90: 'Plants were woven into the design', and formed 'part of the allegorical content of the gardens'.

8. Roy Strong, *The Renaissance Garden in England* (London, 1979) p. 10: 'Each flower within a great garden was seen to mirror one of her regal virtues, while its overall composition could proclaim Elizabeth in her varying roles as Spenser's "most royaal queen or empresse" . . . the garden . . . became Gloriana's glass'; p. 47, Elizabeth I was the eglantine rose.

9. Being replaced by 'theme parks', such as the Beatles garden in the Liverpool garden festival, Jane Brown, *The English Garden in our Time* (Woodbridge, 1986) p. 222.

10. The discussions in English landscape gardening circles from the late nineteenth century onwards are about form: 'formal' versus 'natural' (Laurence Weaver, *Houses and Gardens by E. Lutyens* (Woodbridge, 1981 reprint), p. xviii, or 'modern' versus 'English garden' (as exemplified in Jason Hill's *Gardener's Companion*, 1936). Jane Brown, *The English Garden in our Time* (1986) p. 129.

11. Geoffrey and Susan Jellicoe, *The Landscape of Man* (London, 1987) p. 386, Sutton Place, Guildford, which was an allegory of creation, and p. 389, the Moody Gardens, Galveston, Texas, which was designed to illustrate 'the way in which civilizations have assembled, nurtured and integrated plants of all kinds into their various forms of gardens and landscapes'.

12. Mark Francis, Randolph T. Hester, *The Meaning of Gardens: Idea, Place and Action* (Cambridge, Mass., 1990).

13. Sutherland Lyall, *Designing the New Landscape* (London, 1991), pp. 60–63.

14. John Dixon Hunt, 'Verbal versus visual meaning in garden history: The case of Rousham',

in *Garden History, Issues, Approaches, Methods*, edited by J. Dixon Hunt (Dumbarton Oaks Research Library and Collection, Washington, D.C., 1992), p. 160.

15. Kenneth Woodbridge, *The Stourhead Landscape*, pp. 18–19.

16. Rainer Stadelmann, 'Šwt-R'w als Kultstätte des Sonnengottes im Neuen Reich', *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 25.2 (1969), p. 161: 'Der Tempel wird dabei ein Abbild der Welt gedacht die der Sonnengott in Gestalt des Amun-Re täglich überquert'; Wolfgang Helck, Eberhard Otto, *Lexikon der Ägyptologie*, i (Wiesbaden), p. 397. Architectur: 'So ist der Tempel ein Weltmodell, ein "Fahrplan des Kosmos".'

17. Wolfgang Helck, Eberhard Otto, *Lexikon der Ägyptologie*, v (Wiesbaden), p. 158.

18. Pierre Montet, 'Hathor et les papyrus', *Kemi* 14 (1957), p. 108.

19. Ingrid Wallert, *Die Palmen im Alten Ägypten* (Berlin, 1962), pp. 97–113.

20. Renate Germer, 'Die Bedeutung des Latichs als Pflanze des Min', *Studien zur Ägyptischen Kultur* 8 (1980), p. 87.

21. Raymond O. Faulkner, *Ancient Egyptian Coffin Texts*, II, p. 247, Spell 682, 'His mother Nut bore him in the Field of Tamarisk which protected the god in the nest'.

22. R. O. Faulkner, *The Book of the Dead* (New York, 1972), ch. 109: 'I know those two trees of turquoise between which Re goes forth'.

23. *The Shell Gardens Books*, edited by Peter Hunt (London, 1962), p. 180.

24. Offerings, floral: James Henry Breasted, *Ancient Records of Egypt* (Chicago, 1906–07), IV, pp. 244, 301; vegetable: *ibid.* IV, p. 244; fruit: *ibid.* IV, pp. 234, 294–45; incense: *ibid.* IV, p. 294; perfume: *ibid.* IV, p. 286.

25. Wolfgang Helck and Eberhard Otto, *Lexikon der Ägyptologie*, VI (Wiesbaden), Weihrauch, pp. 1167–89; F. Nigel Hepper, *Pharaoh's Flowers, The Botanical Treasures of Tutankhamun* (London, 1990), p. 20.

26. By Nigel Groom, *Frankincense and Myrrh. A study of the Arabian Incense Trade* (London, New York, 1981), p. 25, who notes that *antyw* was used in making an ointment, which he states had to have been obtained from myrrh which could be mixed with balanos oil, whereas frankincense cannot be used for making perfume.

27. Siegfried Schott, *Altägyptische Festdaten* (Wiesbaden, 1950), p. 71; Norman de Garis Davies, *Journal of Egyptian Archaeology* 10 (1924), pp. 12–13.

28. Wolfgang Helck, Eberhard Otto, *Lexikon der Ägyptologie*, VI (Wiesbaden), pp. 187–89. Talfest. Siegfried Schott, *Das Schöne Fest vom Wüstental*. (Wiesbaden, 1952).

29. Theodore Davis, Edouard Naville, and Howard Carter, *Theodore M. Davis Excavations, Biban el Moluk. The Tomb of Hatshepsut* (London, 1906), p. 59, state that there were gardens around this temple. Referring to the relief of a garden in

the central shrine of the funerary temple of Hatshepsut, the authors say: 'The garden . . . must have been in the watered and cultivated ground perhaps at the extremity of the little valley which was the site of the avenue leading to the temple, where have been found remains of a building'.

30. Criteria for formal gardens: Mark Laird, *Formal Gardens: Traditions of Art and Nature* (London, 1992), p. 6.

31. Peter Hunt, *The Book of Garden Ornament* (London, 1974), p. 209.

32. Edouard Naville, *The Temple of Deir el Bahari* (London, 1908), VI, p. 1. In front of the colonnade on the lower terrace, i.e. the one with a relief of the transport of obelisks: 'We found that on both sides the open space was used as a kind of garden. There were many small round pits about ten feet deep, filled with Nile mud in which trees had been planted. The stumps of two palm trees are still in situ, but there were other trees'.

33. D. Arnold, in Wolfgang Helck, Eberhard Otto, *Lexikon der Ägyptologie* I (Wiesbaden, 1975–86), p. 1019, says they are flowerbeds.

34. As Jean-Claude Hugonot, *Le Jardin dans l'Égypte ancienne* (Frankfurt-am-Main, 1989), p. 72.

35. John D. S. Pendlebury, *The City of Akhenaten*, III (London, 1951), pp. 86–87, pls i, xlv 'At the north end of the west side are two terraces at a lower level, but a small flight leads down to the lowest where there was evidently an arbour.'

36. Paul Barguet, *Le Papyrus Louvre N. 3176* (Cairo, 1962), p. 42, says that a passage in the Book of the Dead, ch. 125, refers to putting into the coffin on the edge of the quay at night, the sacred objects which symbolized the body of Osiris . . . Not only does the 'mystery' take place on the banks of a lake but the text shows that Pharaoh in his role as Horus 'has wrapped his father Osiris and taken care of his tomb at the head of the sacred lake' (which might be the shrine of Tuthmosis III at the western end of the lake).

37. Sun cult at Amarna, Beatrix Gessler-Löhr, *Die Heiligen Seen ägyptischen Tempel* (Hildesheim, 1983), p. 213, Hathor cult, Elisabeth Staehelin, 'Zur Hathorsymbolik in der ägyptischen Kleinkunst', *Zeitschrift für Ägyptische Sprache* 105 (1978), pp. 76–77.

38. E.g., Beatrix Gessler-Löhr, *Heiligen Seen ägyptischen Tempel* (Hildesheim, 1983), pp. 99–100, a statue of Amenophis III being rowed on a lake. Theban Tomb 277.

39. E.g., Meten, Hans Goedicke, 'Die Laufbahn des Mtn', *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 21 (1966), pp. 64–65, or the description of the estate of Raia; Miriam Lichtheim, *Ancient Egyptian Literature*, II (Berkeley, 1974), p. 173. 'The lapping of waves sounds in one's sleep'.

40. E.g., Fatehpur Sikri, built by Akhbar, 1570, or the Shalamar gardens, Lahore, of Shah Jahan, 1642, William Howard Adams, *Nature Perfected: Gardens through History*, pp. 79, 82.

41. About 37 m long, 12 m of which projected into the lake, Thomas E. Peet and C. Leonard Woolley, *The City of Akhenaten* (London, 1923), I, p. 115, pl. XXIX.

42. Ubaoner Story, Raymond O. Faulkner, Edward Wente, William Kelly Simpson, *The Literature of Ancient Egypt* (New Haven, London, 1972), p. 17.

43. Wolfgang Helck and Eberhard Otto, *Lexikon der Ägyptologie*, VI, pp. 1282–84. 'Wochenlaube', and references in Alan Schulman, *Journal of the American Research Center in Egypt* 22 (1985), p. 99, note 10.

44. Moh. Abdel Qader Mohammed, 'Preliminary Report on the Excavations carried out in the Temple of Luxor, Seasons 1958–59 and 1959–60', *Annales du Service des Antiquités de l'Égypte* 60 (1968), p. 267.

45. Moh. Abdel Qader Mohammed, *Annales du Service des Antiquités de l'Égypte* 60 (1968), pp. 233–34, pl. lxxxvi, xcv.

46. Tiles in the Bishop's Garden at Castelo Branco. Photo: Tony Aruzza, *Portugal. Insight Guides* (London, 1988), p. 243; Quinta da Penha Verde Sintra (1640–50); Helder Carita and Homem Cardoso, *Portuguese Gardens* (Woodbridge, 1990), p. 80. 'Tile work which was almost entirely restricted to religious architecture in the first half of the seventeenth century makes its appearance in gardens'.

47. Which require a third of the number of bricks that a straight wall needs because it is half as thick as a normal wall, but could reach a height of 15 ft, Jean O'Neill, 'Walls in half circles and serpentine walls', *Garden History* 8.3 (1980), p. 72, their purpose was to grow fruit. According to Stephen Switzer, 1742, the wall was 6–8 yd round on the inside; at Hermopolis it was about 2 m: Joachim Liwa, 'On the meaning of the so-called sinusoidal walls in Egypt during the Middle Kingdom' in *The intellectual heritage of Egypt* edited by Ulrich Luft, *Festschrift L. Kakosy* (Budapest, 1992), p. 523, which lists known examples and suggests saving of building material, rapid construction and resistance to sand pressure as advantages.

48. Donald B. Redford, *Journal of the American Research Center in Egypt* 28 (1991), p. 91, fig. 19.

49. Günther Roeder, 'Bericht über die Ausgrabungen des Deutschen Hermopolis Expedition 1935', *Mitteilungen des Deutschen Instituts für ägyptische Altertumskunde in Kairo* 7 (1937), pp. 10–21.

50. Claude Traunecke, *Bulletin de la Société d'Égyptologie de Genève* 9–10 (1984–85), pp. 285–307.

51. Shehata Adam and Farid el Shaboury, 'Report on the work at Karnak during the seasons 1954–55 and 1955–56', *Annales du Service des Antiquités de l'Égypte* 56 (1959), p. 39, pl. 5; Charles C. Van Siclen, *Two Theban Monuments from the Reign of Amenhotep II* (San Antonio, Texas, 1982), p. 15.

52. Werner Kaiser, 'Stadt und Tempel von Elephantine', *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 38 (1982), pp. 306–29.

53. Ricardo Caminos, *Late Egyptian Miscellanies* (London, 1954), p. 143.

54. Theban Tomb 277, Jeanne Vandier d'Abbadie, *Deux tombes thébaines à Gournet Mourrai* (Cairo, 1954), pp. 14–17, pls xii–xiii.

55. William H. Adams, *Nature Perfected: Gardens Through History*, p. 83, comments on the position of the Taj Mahal (1632–54) being at one end of the central axis, 'so that it can easily be seen from the Jumna River below', and thus departing from the *chahar bagh* pattern where the tomb-pavilion is in the centre.

56. Clément Robichon and Alexandre Varille, *Le Temple d'Amenhotep, Fils d'Hapou* (1935).

57. Lecture at the British Museum 10 November 1992 by Dr Hourig Sourouzian.

58. Lecture at the British Museum 10 November 1992 by Dr Hourig Sourouzian on the re-use of statues of Amenophis III by Ramesses II at Luxor temple, and by Merneptah in his funerary temple on the west bank at Thebes.

BIBLIOGRAPHY

- Bietak, Manfred, *Tell el Dab'a*, v (Vienna, 1991).
- Badawy, Alexander, 'Maru-Aten: pleasure resort or temple?', *Journal of Egyptian Archaeology* 42 (1956), pp. 58–64.
- Borchardt, Ludwig, Herbert Ricke, *Die Wohnhäuser in Tell el-Amarna* (Berlin, 1980).
- Bruyère, Bernard, *Rapport sur les fouilles de Deir el Médineh 1935–40* (Cairo, 1952).
- Davies, Norman de Garis, *The Rock Tombs of el-Amarna* (London, 1903–08).
- Davies, Norman de Garis and Alan H. Gardiner, *Seven Private Tombs at Kurneh* (London, 1948).
- Dziobek, Eberhard, *Das Grab des Ineni, Theben nr. 81* (Mainz am Rhein, 1992).
- Eigner, Diethelm, *Die Monumentalen Grabbauten der Spätzeit in der Thebanischen Nekropole* (Vienna, 1984).
- Firth, Cecil M., Battiscombe Gunn, *Teti Pyramid Cemeteries* (Cairo, 1926).
- Frankfort, Henri, *The Cenotaph of Seti I at Abydos* (London, 1933).
- Germer, Renate, *Flora des pharaonischen Ägypten* (Mainz, 1985).
- Haeny, Gerhard, Herbert Ricke, *Beiträge zur Ägyptischen Bauforschung und Altertumskunde*, 11, *Untersuchungen im Totentempel Amenophis III* (Wiesbaden, 1981).
- Houlihan, Patrick F., *The Birds of Ancient Egypt* (Warminster, 1986).
- Hölscher, Uvo, *The Excavation of Medinet Habu* (Chicago, 1934–54).
- Hölscher, Uvo, *Die Wiedergewinnung von Medinet Habu in Westlichen Theben* (Tübingen, 1958).
- Ikram, Salima, 'Domestic shrines and the cult of the Royal Family', *Journal of Egyptian Archaeology* 75 (1989), pp. 89–101.
- Kaiser, W., 'Stadt und Tempel von Elephantine', *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 38 (1982), pp. 306–29.
- Kemp, Barry J. *Amarna Reports* (London, 1984–).
- Leblanc, Christian, 'Culte rendu aux colosses "Osiriaques"', *Bulletin de l'Institut Français d'Archéologie Orientale* 82 (1982), pl. I–lii.
- Martin, Geoffrey T., *The Tomb Chapels of Paser and Ra'ia at Saqqara* (London, 1985).
- Nelson, Harold, Uvo Hölscher, *Work in Western Thebes 1931–1933* (Chicago, 1934).
- Pendlebury, John D. S., *et al. The City of Akhenaten*, III (London, 1951).
- Pendlebury, John D. S. *Tell el Amarna* (London, 1935).
- Petrie, William M. Flinders, *Tell el Amarna* (London, 1894).
- Porter, Bertha and Rosalind L. B. Moss, *Topographical Bibliography of ancient Egyptian hieroglyphic texts, reliefs, and paintings* (Oxford, 1927–).
- Ricke, Herbert, Gerhard Haeny, *Beiträge zur Ägyptischen Bauforschung und Altertumskunde*, heft 1 *1. Untersuchungen im Totentempel Amenophis' III* (Wiesbaden, 1981).
- Shedid, Abdel Ghaffar, *Stil der Grabmalerei in der Zeit Amenophis' II. Untersucht an den Thebanischen Gräbern Nr. 104 und Nr. 80* (Mainz-am Rhein, 1988).
- Vandier, Jacques, *Manuel d'archéologie égyptienne*, 7 vols (Paris, 1952–69).
- Winlock, Herbert E. *Excavations at Deir el Bahri 1911–1931* (New York, 1942).

59. Marcelle Baud, *Le Caractère du Dessin en Egypte Ancienne* (Paris, 1978), figure 116.

60. TT 51. Norman de Garis Davies, *Two Ramesside Tombs at Thebes*, 1927.

61. Norman de Garis Davies, *The Rock Tombs of el Amarna*, v (London, 1903–08), pl. v.

62. James H. Breasted, *Ancient Records of Egypt*, 5 vols (Chicago, 1906–07), IV, 333: 'I planted incense and myrrh trees in thy great and august court in Ineb-Sebek, being those which my hands brought from the country of God's Land'. Papyrus Harris. Ramesses III.

63. Jean-Claude Hugonot, *Le Jardin dans l'Égypte ancienne* (Frankfort-am-Main, 1989), pp. 9–20; Henry G. Fischer, 'An invocatory offering basin of the Old Kingdom', *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo* 47 (1991), pp. 127–33.