

THE OSTRACON

THE JOURNAL OF THE EGYPTIAN STUDY SOCIETY

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Publication of The Ostrakon is supported by a grant from

THE PETTY FOUNDATION

Denver Museum of Natural History
2001 Colorado Blvd.
Denver, Colorado 80205



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Ancient Egyptian Gardens

Jane M. H. Bigelow

GARDENS and their requirements are a complex subject. Ancient Egypt has a long and complex history. Combining those two topics produces a subject well beyond the scope of one amateur's paper. The botanical classifications, irrigation techniques, sacred and medicinal uses of plants, all could be separate papers, and some have occupied whole books. This article attempts only a quick overview.

Throughout the history of ancient Egypt, gardens were prized. There were gardens for every purpose, for pleasure and for medicine, for food and for worship. Above all, there were gardens for shade and coolness. Often the same garden served several purposes at once, for the ancient Egyptians were in many ways a practical people. They are credited with having the first botanic gardens. Pharaohs, recording their great deeds, listed gardens they had created and expeditions they had sent to far-off lands for trees and exotic plants. Ordinary people had their own, less elaborate gardens; even poor peasants had their vegetable plots, though these would have been outside of the village. These humble gardeners, or at least the results of their work, were important enough that Horemheb warned his officials not to take the best of the peasants' produce.

If a botanic garden is a collection of specimen plants, then Thutmose III may have created the first one. His Festival Temple at Karnak contains a room whose walls are decorated with carvings of all the plants which he brought back from his expeditions to Palestine and Syria. They included such exotic plants as iris, calanchoe, and arum, in addition to plants common to both areas, such as palms, pomegranates, lettuces, and melons. So far archaeologists have not found the actual garden.

In many cases, we rely on wall paintings, tomb reliefs, or documents for our information concerning the plants of ancient Egypt. Analysis of pollen grains found in mud bricks from several archaeological sites has provided some information on agricultural crops and on trees (Zahran and Willis 1992:370–375). Plant remains in tombs have also given direct evidence of what trees, flowers, and fruits the ancient Egyptians enjoyed and hoped to have with them in the afterlife.

When a householder in ancient Egypt walked into the garden to enjoy its coolness, what plants would have been in it?



There would have been trees. Even a small urban house would have had at least one if possible. When Nebamun, a police captain of Thutmosis IV, built his house *circa* 1405 BCE he constructed it around two date palms which were already there (Manniche 1989:8). Trees shaded other plants as well as people, shielding them from the full force of the sun. Vines as well as trees shaded pools, making them attractive to wildfowl.

Tomb paintings of private gardens show sycamore fig, *doum* palm, date palm, pomegranates, olives, willows, and *persea*. *Doum* palms have stems divided low down so that the tree seems to have two trunks; each stem bears about forty oval fruits with sweet outer skins and an inner nut containing sweet juice. *Persea* trees are tall trees with oval evergreen leaves; they bear small yellow or green fruit. Wilkinson includes apples in her lists of trees grown in Egypt (Wilkinson 1998:45), as does Manniche (Manniche 1989:117); this is surprising since most apple trees need a chilled period to thrive, and they would certainly not have had it in Egypt at any time. Although temperatures may drop below freezing on occasion, they do not typically stay there. Perhaps gardeners, or garden-owners, regarded the apple trees as a challenge; Pharaohs and their nobles were fond of exotic plants.

Plants in pots would also have been set in the courtyard and along the *façade* of the house of a minor official such as Nebamun. My sources are not clear as to what these plants would have been in small gardens, but in larger gardens such varied plants as cornflowers, and even fig trees, were sometimes planted in mud containers (Wilkinson 1998:26).

Few of the plants would have been entirely ornamental. Even the flower gardens served as a source of offering bouquets, personal ornaments, and party decorations. Flower gardens often included poppies, cornflowers, and mandrakes; sometimes there were hollyhocks and mallows. To judge by wall paintings, the mandrakes seem to have been grown more for their yellow fruits, which contrasted well with the red poppies and blue cornflowers, than for their flowers.

Gardens with pools or canals often had papyrus growing beside them. Flower arranging was an important art; papyrus served to give structure to formal bouquets in addition to supplying blossoms of its own. Such a bouquet would have had a stiff core formed of rushes, palm branches, or papyrus plants. The florist then added cornflowers, water lilies, poppies, and mandrake fruits, tied in tiers to the core. Finally he or she would have covered the bindings with collars made of papyrus (Manniche 1989:24).

If our hypothetical Egyptian had a little more land than Nebamun did, there would have been a fishpond in the garden. It might also contain water lilies, much prized for their beauty and scent. They were the largest, showiest flowers of ancient Egypt, and by far the longest-blooming. Individual blossoms last only a few days, or just one in some species, but the plants bloom most of the year.

The blue spiky flowers being held or worn in so many tomb paintings are probably *Nymphaea caerulea*, the blue Egyptian water lily, rather than a true lotus. *Netumbo nucifera*, the sacred lotus of India, probably did not arrive in Egypt before 525 BCE (Ossian 1998:50). Some of the confusion arises because the Egyptian white waterlily has the botanical name *Nymphaea lotus*; authors sometimes refer to it simply as a lotus. The white and the blue waterlily are native to Egypt, though more modern agricultural techniques, and the lack of the yearly inundation, have reduced their numbers in modern Egypt.

In many cases there would have been grapevines near the fishpond, sometimes trained over it on a pergola. Grapes were clearly known and cultivated in Old Kingdom times (Wilkinson 1998:44). By the Seventeenth Dynasty Egyptian gardeners had at least four different kinds of grapes available (Huxley 1971:14). If space allowed, there was often a pavilion or kiosk near the pool, shaded by the grapevines. Large estates or royal gardens had several. There the family could sit and enjoy the coolness of the water, and the soothing sounds it made.

Some of the family members may have made their first appearance in the garden. In New Kingdom times, women sometimes gave birth in a bower specially constructed in the garden or on the roof of the house (Robins 1996:83). Sweet-smelling flowers and a structure that allowed cooling breezes to reach her would doubtless have been welcome to the woman in labor.

Ancient Egyptian garden ponds, whether humble fishponds or great lakes fit for rowing statues in ritual processions, all seem to have been square, oblong, or T-shaped. Throughout their long history, Egyptians designed their gardens in what would look to us like a very formal style. Straight lines, square corners, and evenly-spaced rows were the rule, and if that rule was ever broken the record has not reached us. Pits that once contained trees around temples and tombs were dug at precise intervals. Flower and vegetable beds were rectangular, often divided by low dikes. The ancient Egyptians loved symmetry, and twin trees and pools were common.

In part, they may have arranged their gardens in this way for convenience of weeding and watering. The *shaduf*, with its counterweight, first appears in the Eighteenth Dynasty. This hardly made the task of irrigating gardens easy, but before that it must have been incredibly laborious. Every pot or waterskin of water had to be raised from a canal, well, or the Nile itself by pure muscle power. The waterwheel (*sagqiyah*) appears very late, possibly not until Ptolemaic times. Rectilinear beds can have irrigation channels at regular intervals, which means that the laborer need carry water to only a few points. Pottery water pipes were found at the temple palace of Seti I at Thebes, though Wilkinson states that they date from the Late Period. A series of pots with the bottoms knocked out and laid end to end was sometimes used to lead water to plants. The ornamental pots that became popular in the time of Ramesses III would have had to be individually watered, however.

Wells and canals were crucial. Rich Egyptians had their own wells; poor ones had to haul water from a communal well that might be some distance away. Many wall paintings show donkeys laden with large water-jugs. Gardeners performed similar duties, using a yoke to carry two water containers at once.

When the yearly inundation came, Egyptians ran to open the dikes around fields and pools so that the Nile water could flow in. Water stored in the pools would be let out in small, careful amounts to irrigate nearby fields and gardens. Landowners went out to observe the opening of the dikes. A festival celebrating this opening was still being celebrated in the Sixteenth Century CE; people threw flowers, gifts, and even themselves, into the water (Wilkinson 1998:37).

Ancient Egyptian gardens would have been enclosed, either by a reed or thorn fence in the earliest times, or by mud brick walls. These gave privacy and protection from both animals and the wind. Gardeners frequently had to remove sand from gardens even so. They had to guard against insects, snakes, goats, monkeys, baboons, and even hippopotami. (It makes this gardener inclined to complain less about squirrels!) Baboons are sometimes shown helping with the fruit harvest; unlikely though this seems, it was evidently also done in Malaysia in modern times (Hyams 1971:14).

Most gardens, including some temple gardens, had vegetable beds. These often had low mud walls around them to keep the water near the plants, and were sited near water. This is advisable for any dry-climate garden, but especially for vegetable gardens. The cucumbers and melons planted there need large quantities of water to produce good crops, as does lettuce. Lettuce was sacred to the fertility god Min, and was thought to be aphrodisiac. Onions seem to have been everywhere. Along with garlic and radishes, they were a staple of the Egyptian diet. If Manniche is right, and the ancient Egyptians did not have herbal tooth powders (Manniche 1989:44), then perhaps it is no wonder that they set such value on perfume and incense.

Royal and temple gardens had more scope than those of private individuals, and more demands on them. Avenues of trees, such as tamarisks and sycamore figs, were planted along the approach to temples. Tamarisks were commonly used along the approach to tombs and temples because people believed that the sky goddess Nut gave birth to the deceased king in a grove of tamarisks. Sycamore figs (which, by the way, have nothing to do with the sycamore trees we see in our parks and gardens) were sacred to Nut, who gave nourishment to the deceased; sometimes the goddess of the sycamore is identified as Hathor or Isis instead. Hyams (1971:13, 15) holds that all trees were sacred in Egypt, and that the large variety of imported exotics made it possible for each temple to have its own sacred species. Certainly sacred groves were important. There were avenues of trees along the approaches to temples in early dynastic times. Akhenaten, for all his radical changes, began making gardens and groves as soon as he began his new city of Akhetaten.

Growing trees near many of the temples required heroic efforts. Thutmosis III built a shrine near Hatshepsut's temple at Deir el-Bahri; in order to grow trees in that inhospitable territory the officials in charge had to have pits dug ten meters into the rock. The pits were then filled with fertile Nile mud.

Some of the transplanted trees came from other countries. Hatshepsut sent an expedition to Punt to bring back incense trees, possibly for her temple at Deir el-Bahari. Her workers dug them up with their root balls intact—or nearly so—transported them in wicker baskets aboard ship, and planted them in pits, or possibly in pots. All but one survived the journey, according to Huxley (1978:139). Wilkinson, however, says that “there are three problems to do with the trees from Punt: the location of Punt, the identification of the trees brought from Punt, and where the trees were indeed planted” (Wilkinson 1998:84). With modern analysis, we can often identify even fragmentary plant remains, but no trace of Hatshepsut's trees has been found.

The experiment may not have been a success. Thutmosis III also went to Punt to bring back incense trees. Had the earlier shipment died, or was he proving that he was at least as good as Hatshepsut at absolutely everything? In their native habitat in Oman, frankincense trees are watered by a heavy dew during the monsoon season. Anyone who has tried to grow moist-climate plants in an arid or even semi-arid climate has discovered that sometimes, no matter how much water the gardener supplies, the transplant withers for lack of humidity. Sometimes sheltering the plants behind walls or massing several specimens close together will save them, and sometimes not.

History does not record what Akhenaten's gardeners thought of his choice of site for his new city, Akhetaten. Desolate, wind-swept, and subject to temperature extremes, it would have been a challenge even if the gardeners and architects had been given plenty of time. While Akhenaten and his court waited for the transplants to grow, painted and tiled walls gave promise of what was to be.

Transplants are particularly vulnerable to dehydration. How did Akhenaten's gardeners keep alive what must have been hundreds of trees? Pools figure largely in the gardening landscape of Amarna; perhaps some of them were not entirely ornamental. Cornflowers, poppies, mandrakes, and hollyhocks could all have been grown from seed, though the seedlings must have been given some shelter from sun and wind.

Before, during, and after Akhenaten, officials and nobles had their tomb gardens. We can tell a lot about actual tomb gardens from the painted representations and small models that have survived. Some officials left detailed descriptions of their tomb gardens. Ineni, who designed gardens for both Thutmosis I and Hatshepsut, was one who did so. As befits someone of his importance, it was quite large and contained “73 sycamore trees; 31 persea trees; 170 date palms; 120 *doum* palms; 5 fig trees; 2 moringa trees; 12 vines; 5 pome-

granate trees; 16 carob trees; 5 Christ thorn; 1 argun palm; 8 willow trees; 10 tamarisk trees; 5 *twn*-trees (a kind of acacia?); 2 myrtle (?)...and 5 unidentified kinds of tree” (Manniche 1989:10).

Lesser personages would have had at least one sycamore fig for the sky goddess Nut to inhabit. She would care for the tomb-owner in the hereafter, bringing him gifts and nourishing him. Tomb paintings often show a pool with water lilies, papyrus, ducks, and fish. On the edge of it, the tomb owner would have arranged for someone to grow the same poppies, cornflowers, and mandrakes that he or she enjoyed in this life.

Most herbs are not terribly demanding in their cultural requirements. They need plenty of light (no problem in Egypt), warmth (also no problem), and moderate amounts of water (Egyptians knew how to provide this, and still do). There were herbs for medicine, herbs for cooking, herbs for cosmetics; sometimes the same herb served all three purposes. Temples had entire gardens devoted to medicinal herbs. Manniche lists 95 medicinal plants in *An Ancient Egyptian Herbal* (1989:64–158). Some are still in use today, such as senna, an extract from any of several species of *Cassia*. These are small, shrubby trees, whose bark is similar to cinnamon. The upper classes used it as a laxative, while humbler sufferers had to make do with a mixture of castor oil and beer (Mann 1992:8). Extracts of willow bark and leaves, which contained salicyl, were used to treat inflammation and rheumatic complaints. We use it today when we take an aspirin tablet. We have, however, eliminated prescriptions which call for hippopotamus dung.

The ancient Egyptians created and maintained these gardens with few tools. It is hard to imagine gardening without some kind of hoe. Theirs were sometimes all wooden, and in predynastic times were just forked sticks with sharpened points (Huxley 1978:107). Some had copper blades (Wilkinson 1998:31).

They carried soil and sand in baskets, and used scoops to move mud. Curiously, I have found no mention of shovels. Indeed, Wilkinson says flatly that “tools were limited to ploughs and Egyptian hoes for digging” (Wilkinson 1998:31).

The gardeners who did the actual labor had a rough life. With these few tools, they had to create and maintain the networks of dikes and water channels that directed water to the plants and kept it there. They had to remove windblown sand and spread manure, remove weeds and bring in water. When all that was done, one gardener's contract required him to make baskets in the evening.

Those laborers were toiling away at the beginning of garden history. Elements of Egyptian garden design recur throughout the millennia, transmitted through the Greeks and Romans. Eighteenth Century CE European gentry would have found much of an Eighteenth Dynasty garden familiar and pleasing. Modern public gardens, while less rigidly rectilinear, use terraces and pools in ways

the ancient Egyptian would have recognized. Surely they would have enjoyed our formal rose gardens with their neat rows and abundant scent.

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