

Gardens of Eden: Exotic Flora and Fauna in the Ancient Near East

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ABSTRACT

The idea of the garden began in the ancient Near East, in concert with the origins and development of agriculture, urbanism, and imperialism. From the start, exotic flora and fauna played vital roles in the world's earliest transformations of the natural environment, creating physical and metaphysical gardens of far-reaching significance. This paper examines selected aspects of exotica in Mesopotamia and Egypt, drawing together evidence from art, texts, and archaeology.

INTRODUCTION

Since earliest times, exotic flora and fauna have been integral components of the idea of the garden. As we cast our thoughts about nature and culture back across millennia to the ancient Near East, we see botanical and zoological gardens of every era replete with exotic plants and animals. There are, for example, the zoological firsts, bearing upon their striped and reticulated backs burdens of great social and political weight. The nineteenth century witnessed such firsts as the African animals brought to Antwerp and Berlin, evocatively installed in Egyptianizing pavilions as living testaments to colonial expansionism and to the triumph of order over the chaotic world (Hoage and Deiss 1996; Spongberg 1990). Then there were the first kangaroos in Europe, bred by the Empress Josephine in her gardens at Malmaison, as part of the Napoleonic imperialistic initiative in natural sciences (Chevallier 1993; Raby 1996). The year 1751 saw the first rhinoceros in Venice, an encounter for the Age of Enlightenment, didactic, and sometimes tiresomely pedantic, as shown in a "true portrait" by Pietro Longhi (Held and Posner 1971). In 1415, the imperial Chinese court examined its first giraffe (with some trepidation, judging from its handler's expression), as part of an ambitious African/Chinese trade agreement (Wilson 1992). About 800, the first elephant in northern Europe, one Aboul-Abas by name, made its way to Charlemagne, a gift from Harun al-Rashid to his counterpart in the West (Croke 1997). The citizens of Athens gathered to gape at their first tiger, presented in 323 BCE by Alexander's general Seleucus as a harbinger of the Hellenistic age (Ives 1996).

In the ancient Near East, for three thousand years before this Alexandrian tiger, exotic plants and animals were of considerable interest to royalty and private individuals. Some collected rarities out of intellectual curiosity, while others were motivated by potential economic rewards. Many rulers saw acquisition and display of exotic flora and fauna as effective ways to enhance prestige or to demonstrate imperial dominion over far-flung lands. Botanical

gardens and zoos were often designed so that transplanted species could successfully establish themselves in their new environments. Specimens of exotic flora and fauna were prized as tribute offerings and suitable gifts for royalty. Certain non-native plants and animals were needed for the enactment of religious and other ceremonies. Finally, the controlled coexistence of exotic and indigenous flora and fauna in palatial and urban settings provided a powerful, living metaphor for mental maps of a more perfect world—the original gardens of Eden.

The present paper touches on selected aspects of this subject, drawn from my on-going, comprehensive investigation of the evidence from Mesopotamia, Egypt, and other areas of the Bronze Age world. My research has pursued three principal avenues of inquiry: exotica in art, texts, and archaeology. I have gathered over four hundred representations of exotic plants, animals, botanical gardens, and zoos. This wealth of artistic material raises the following questions, among others: How does the pictorialization of exotica demand new artistic solutions, instead of reliance on established conventions of rendering? What role does the introduction of exotica play in the stylistic development of narrative and landscape art? In what contexts are exotica situated geographically, so they serve as reliable maps of the hinterland and frontier? To what extent are depictions of exotica based on first-hand observation of species in their native habitats? What features of exotica become subsumed into a generalized thematic vocabulary denoting the strange or numinous?

Mesopotamian and Egyptian written sources abound with mention of non-native flora and fauna. My concern with textual material focuses on such issues as how exotic characteristics were described, the significance of exotica in figurative language, and the ways in which texts complement pictorializations, as captions or as parallel vehicles for ideological expression.

The archaeological record provides some evidence for the presence of exotic flora and fauna in the form of plant and skeletal remains, as well as excavated gardens and enclosures. The ancient Near East was home to three crucial, sequential developments in the relationship between nature and culture: (1) the domestication of plants and animals, and the start of agriculture; (2) the building of the world's earliest cities, with the concomitant first agrarian/urban dichotomies; and (3) the rise of the world's earliest empires and colonial powers. Within this context, my particular interest lies in defining archaeologically how exotic plants and animals played vital roles in the idea of the garden at its very beginnings.

EXOTICA IN MESOPOTAMIA

From nearly every period come Mesopotamian texts or representations pertaining to exotic fauna. In the Sumerian literary composition “The Curse of Agade,” for example, the goddess Inanna describes the greatness of her city Agade, capital of the Akkadian empire ca. 2300 BCE: “Monkeys, mighty elephants, water buffaloes, and wonderful animals,” she says, “jostle each other in the public squares” (Cooper 1983). In like manner, the royal Palm Court at Mari ca. 1800 BCE requested many exotic and rare animals, including Elamite cats, bears, and chamois (Wiseman 1983). Their desirability may be gauged by the fact that a chamois born en route to Mari was kidnapped by someone, though the mother animal arrived safely. Finicky animals like Mediterranean seals and dolphins were accompanied by their human handlers, who presumably were under strict instructions to see that their charges made it to their destination.

As for exotic flora, “gardens enhance the pride of the city,” says the Neo-Babylonian “Hymn to Ezida,” especially those with unusual features (Wiseman 1983). Pleasure gardens and game parks with exotic specimens were maintained for king and populace. Several Sumerian texts describe how gods journeyed to visit certain temples to admire their gardens: Eridu, with its rare fruit trees and carp pools and Nippur, with its unusual palms and conifers (al-Fouadi 1969). Gardeners trained to care for these rare plants were much esteemed and well remunerated. Some exotic flora seem to have supplied the needs of perfume industries, temple rituals, and herbal pharmacopeia.

The most famous Mesopotamian gardens were one of the Seven Wonders of the Ancient World, the Hanging Gardens of Babylon. According to later sources, the Babylonian king Nebuchadnezzar (ca. 600 BCE) ordered artificial knolls, hills, and watercourses planted with exotic trees, shrubs, and trailing vines, all this effort so that his Median queen might be less homesick for her native mountains (Finkel 1988). Unfortunately, there is no archaeological evidence for these wondrous gardens. Many reconstructions at various locations in Babylon have been proposed, entailing such elements as vaulted supports, water wheels, terraces, and aqueducts. A recent study suggests that the Hanging Gardens may not have been at Nebuchadnezzar’s Babylon at all, but at Sennacherib’s Nineveh, ca. 700 BCE, where ingenious devices, forerunners of the Archimedes screw, raised water to several garden levels (Dalley 1994).

The Sumerian hero-king Gilgamesh is associated in symbolically important ways with indigenous and exotic flora and fauna. At the beginning and end of *The Epic of Gilgamesh*, he stands on the walls of his city Uruk, looking down at its rich gardens, part of his enduring legacy (Kovacs 1989). One of the epic’s incidents involves cutting rare

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giant cedars and the dire consequences of that action. In a later episode, Gilgamesh travels in despair through darkness, searching for answers to his questions about death. He emerges into sunlight to find a garden of immortal jewels, with lapis lazuli foliage, carnelian fruit, and flowering clusters of semiprecious stones. A fictional letter composed centuries later as a school exercise has Gilgamesh request a shipment of rarities from an unnamed foreign king: thousands of black horses with white stripes, thousands of white horses with black stripes, and “anything precious, exotic, which I have never seen” (B. R. Foster 1995).

The Neo-Assyrian kings of the ninth to seventh centuries BCE elevated exotic flora and fauna to their greatest positions in the Mesopotamian imperialistic program (Aynard 1972; Curtis and Reade 1995; Reade 1983). During this period, relentless military campaigns extended Assyrian power from the Mediterranean to beyond the Zagros Mountains. Much of Assyrian art, especially palace wall reliefs, was propagandistic, intended to describe and commemorate events in distant places. In addition, the reliefs often served to depict plant and animal tribute from foreign lands, as well as their installation in botanical and zoological gardens that were the pride of kings.

With Assurnasirpal II's building of a new palace and administrative center at Nimrud in 879 BCE, the acquisition of exotica escalated. Living tribute came to Nimrud from every quarter: monkeys, elephants, bears, rare deer, sea creatures. A major group of reliefs shows foreigners carrying luxury goods and prestige items, including a pair of leashed monkeys. The king himself actively sought out unusual specimens in the course of his military campaigns. As Assurnasirpal proudly writes, “I collected their herds, and caused them to bring forth their increase. From lands I traveled and hills I traversed, the trees and seeds I noticed and collected” (Wiseman 1983). No archaeological traces remain of what must have been extensive gardens, parklands, and animal enclosures at Nimrud.

Shalmaneser III, successor to Assurbanipal II, continued these patterns of acquisition and display, but sought to use exotica in art to greater narrative effect (Curtis and Reade 1995). Foreign topography, people, plants, and animals appear in more pictorially unified compositions, which visually confirmed their forcible integration into the Assyrian world. The embossed bronze bands made ca. 845 BCE for the massive wooden gates of a royal building at Balawat present Assyrian military and other enterprises, among them the royal visit to the source of the Tigris, or perhaps the Tigris Tunnel. The explorers wade through naturalistic grottoes, flares held high above the stream. The four sides of the ca. 825 BCE Black Obelisk bear register blocks showing tribute brought before Shalmaneser, including “camels

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whose backs are doubled,” elephants, simians, and a single-horned creature, possibly a hippotamus. As on the Balawat Gate bands, exotica receive more sculpturally coherent treatment than they did in the essentially linear reliefs of Assurbanipal II.

A century later, Sargon II (721–705 BCE) founded a new capital city at Khorsabad, on the Khosr River north of Nineveh. According to his inscriptions, Sargon brought in skilled artists from Assyrian-held territories to embellish his palace (Curtis and Reade 1995). Perhaps due to their influence, the Khorsabad reliefs reflect a more sophisticated use of space, in which the Assyrians move with stylistic and personal assurance through landscapes rich in exotic flora and fauna. On panels depicting timber being transported by water, for example, wave and ripple patterns fill entire slabs, with exotic marine creatures swimming among the boats. Other scenes show Sargon’s royal parks, complete with rare trees, elegant kiosks, and pleasure lakes. Assyrian hunting parties form overlapping friezes against a dense, controlled background of plants and animals.

Sargon II’s son and successor was Sennacherib (704–681 BCE), a king of exceptional vision. Early in his reign, he established a new capital at Nineveh. His “Palace Without Rival” featured rooms and courts decorated with sculptured panels unprecedented in their quantity and innovative quality (Russell 1991). For the narrative scenes, Sennacherib’s artists filled whole slabs, as begun at Khorsabad, but here the layered divisions between foreground figures and background landscapes often disappear, resulting in more complex spatial and temporal relationships. Sennacherib’s reliefs are the first internally consistent representations in Mesopotamian art, with exotica playing major roles in this development. In many instances, as in the marshland conquest scenes, they expand the pictorial field, while in others they afford cinemagraphically changing vistas undulating above and below the central narrative sequence, as in the throne room program of colossal winged bulls being quarried and transported. Not only are exotica rendered highly naturalistically, from the reeds bending in the current to the gnarled conifers clinging to wind-swept hills, but they also have become indispensable signifiers of Assyrian prowess.

Like his ancestors, Sennacherib used botanical and zoological gardens as important components of his reign’s propagandistic message. To complement the “Palace Without Rival,” Sennacherib’s gardens were novel creations, inspired by the king’s personal interest in hydraulics, botany, and animal breeding. As noted above, forerunners of the Archimedes screw brought water to intricately terraced gardens. Near Nineveh, Sennacherib reports that he “had a swamp made to control the flow of water, planted reeds there, and released

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herons, wild pigs, and other animals...the plantations were most successful; the herons which came from far away nested, and the pigs and others produced young in great numbers” (Wiseman 1983). Among the exotic trees in his orchards were ones “bearing wool,” apparently a reference to cotton.

Some of Sennacherib’s gardens still flourished in the reign of his grandson, Assurbanipal (668–ca. 631 BCE), whose reliefs at Nineveh include views of terraces with vaulted aqueducts, elaborate plantings, and pillared kiosks. If the Hanging Gardens were indeed Sennacherib’s, these reliefs may afford an idea of their appearance. Other panels show Assurbanipal’s own gardens and zoos, as well as foreign battles and lion hunts. Assurbanipal’s sculptors seem to have been particularly interested in seeking fresh narrative possibilities. One is their increasing use of internal sequences as linking devices among multi-register panels. We follow, for example, a caged lion as it is released, springs forward, and is shot by archers. Another device is their insertion of cuneiform captions or epigraphs, especially into complex combat scenes filling huge slabs. A third involves their expanded understanding of the crucial importance of negative space in creating boundless potential for narrative statements.

With these artistic means at their disposal, artists could rely less on exotica to provide the necessary temporal and spatial frameworks. Granted, Assurbanipal’s botanical and zoological scenes contain exotica rendered with careful precision—vines twisting about trees, stems bending under the weight of lilies, deer trapped in taut nets. Yet the sense of situational, propagandistic immediacy is gone, replaced by confidence in the greater power of text and compositional manipulation. Historical events brought these developments to an end: fifteen years after Assurbanipal, Nineveh fell to the Medes, and the Assyrian empire was finished.

EXOTICA IN EGYPT

From the fourth millennium on, there was strong Egyptian interest in botanical and zoological life beyond the Nile Valley (Houlihan 1996; Hugonot 1989). Predynastic slate palettes and ivory handles of ca. 3100–2900 BCE depict exotic and fantastic animals, as well as living tribute or booty, though it is difficult to evaluate their commemorative significance. The earliest definitively historical texts pertaining to exotica record Old Kingdom expeditions to the Levant to obtain cedar wood. Reliefs from the funerary temple of the Fifth Dynasty pharaoh Sahure (ca. 2458–2446 BCE) depict the departure and return of such a venture, which also brought Syrian bears to Egypt. During the Sixth Dynasty, the young pharaoh Pepi II (ca. 2246–2152 BCE) requested a dancing dwarf or pygmy from the Afri-

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can land of Yam, for he desired this “more than the gifts of the mine-land or of Punt” (Lichtheim 1973). Harkhuf, the successful expedition commander, included Pepi II’s letter of instructions in his autobiographical tomb inscription. The child-pharaoh was particularly anxious lest this special being, considered more exotic than human, fall overboard in the night.

Middle and New Kingdom pharaohs continued to sponsor the collection of exotica, especially as the Egyptian empire expanded southward into Nubia and northward into the Levant. The Eighteenth Dynasty pharaoh Thutmose III (ca. 1479–1425 BCE), for example, conquered Megiddo and washed his weapons in the Euphrates. He commemorated one of his Syrian campaigns with a series of wall reliefs carved in side chambers near his Festival Hall at Karnak Temple (Beaux 1990). Nearly three hundred types of exotic plants, animals, and birds appear in these “Botanical Garden” reliefs, many of which are artistic creations meant to convey the idea of the unusual, even the bizarre, rather than any botanical or zoological reality. For that, gardens and zoos existed in the vicinity of the royal residences, certainly since the Old Kingdom. Those of Thutmose III perhaps included four remarkable birds “that laid eggs daily,” the first domestic chickens in Egypt (Houlihan 1996). On a Nineteenth Dynasty ostrakon, an artist sketched a rooster, apparently drawn from life, possibly on a visit to a royal menagerie (Houlihan 1996). Rameses II (ca. 1290–1224 BCE) outdid Thutmose III’s exhibition of a large dead rhinoceros with display of a live one of prodigious size, whose measurements are given next to its representation (Houlihan 1996). At his new city in the Delta, to cite another example, the Twentieth Dynasty pharaoh Rameses III (ca. 1194–1163 BCE) designed a “sacred way, splendid with flowers from all countries” (Hugonot 1989).

In literature, love poetry speaks of exotic trees planted as durable tokens of affection in the beloved’s garden (Manniche 1989). Other love songs make liberal use of garden imagery, stressing the rich eroticism of perfumed flowers, shining pools, and ripening fruit (J. L. Foster 1974). Properly cultivated trees were metaphors for model behavior, as seen in “The Instruction of Amenemope,” part of a peculiarly Egyptian literary genre (Simpson 1973). Yet gardeners themselves suffered poor reputations, objects of ridicule in caricatures and in “The Satire on the Trades” (Parkinson 1991), and targets of indignities to prove their innocence of pilfering, as recorded in a Demotic contract of the late first millennium BCE (Parker 1940).

The close Mesopotamian relationship between territorialism and exotica is similarly reflected in the tomb paintings and reliefs of numerous high-ranking officials of the New Kingdom. Many of these individuals seem to have directly participated in imperial activities.

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Amenemhab, for instance, accompanied Thutmose III to Syria, there encountering a herd of elephants: “I engaged the largest which was among them. I cut off his hand [trunk] while he was alive” (Davies 1940). On the lintel of his Theban tomb, Amenemhab fends off a giant hyenalike animal in a surreal landscape studded with fantastic plants reminiscent of those in the Karnak reliefs of Thutmose III. The artist has supplied the visual counterpart to the narrative of heroic imposition of order upon a chaotic, non-Egyptian world.

Another of Thutmose III’s henchmen, Amenmose, went to Lebanon to collect tribute (Wreszinski 1923). His tomb artist emphasized the event’s importance by painting it on a separate wall of the tomb. The tribute bearers are shown against a screen of cedars whose slender trunks are vertical stripes in the venerable Egyptian stylization of papyrus thickets, but instead of the expected umbels, here they are topped by ovoid, pointillistic crests. On the one hand, the exotic cedar forests are seen to conform to an ordered, familiar pattern under Egyptian domination, while on the other, the skillful inclusion of evocative details provides a particularized backdrop for effective narrative.

Geographical orientation of exotic tribute played an important part in the development of New Kingdom tomb narratives. Representations of African flora and fauna appear on southern walls, while Levantine plants and animals are painted on northern walls. The tethered processions include elephants, bears, baboons, leopards, lions, antelopes, and monkeys, one of whom hitches a ride on the neck of a giraffe in the tomb of Rekhmire, vizier of Upper Egypt under Thutmose III and Amenhotep II (Wilkinson 1983).

The middle colonnade of the Eighteenth Dynasty pharaoh Hatshepsut’s funerary temple at Deir el Bahri, ca. 1450 BCE, contains an unusually complete program of wall reliefs depicting exotic flora and fauna (Herzog 1968; Kitchen 1971; Smith 1962). The subject is her expedition to Punt, probably located on the Horn of Africa, a destination at least since the Old Kingdom, but never before recorded in images. Egyptian ships sail southward to Punt on the south wall, while the formal announcement of their return is on the north wall. Six registers show Punt: its forests inhabited by exotic animals; its domed dwellings raised on stilts; its diminutive king and his amply proportioned queen; its natural treasures of ebony, frankincense, and myrrh.

Hatshepsut was justifiably proud of her idea to transplant myrrh saplings to Egypt to ensure a local supply of the costly material needed for incense and mummification. We observe a full narrative sequence, from the young trees carried aboard in Punt to the lush myrrh garden thriving in front of the temple at Deir el Bahri. In standard Egyptian practice, the trees are planted in rows and columns of pits filled with Nile alluvium (Hugonot 1989). Later pharaohs were less fortunate with

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their myrrh tree importations; perhaps the Puntites realized how competition would affect their market, and cannily cut the tap roots before balling them up (Dixon 1969).

In several important ways, the artists gave new life to Hatshepsut's repeated, propagandistic cliché: "Never was brought the like of this for any king who has been since the beginning" (Smith 1962). First, the renderings of the Punt exotica are highly naturalistic, implying a measure of first-hand observation, rather than reliance on the usual Egyptian recourse to hybridism, transference, or copying from pattern-books. In addition, the upper registers are wider and longer than the bottom ones, in part because the adjoining wall sloped inward in the Egyptian batter mode. This creates a subtle interplay between the lower village, with its ordered ranks of Egyptians, and the upper forests, with their towering trees, exotic animals, and raised huts seemingly lost in the foliage. Finally, the Punt exotica appear as sets of curvilinear shapes, a dramatic foil to the rectilinear formality of the Egyptian delegation. In the "Punt Colonnade," image and text combine to demonstrate how Hatshepsut's successful mission transformed the exotic forests of Punt into the ordered gardens of Egypt.

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CONCLUSIONS

This concludes our brief tour of physical and metaphysical gardens in the ancient Near East. Neatly enclosed, carefully tended, deliberately provided with exotic and indigenous species—these were the original Gardens of Eden (Delumeau 1995). It was in just such a garden that God planted the two most exotic trees of all: the tree of life, and the tree of the knowledge of good and evil.

REFERENCES

- Aynard, J. M. 1972. Animals in Mesopotamia. In *Animals in archaeology*, A. H. Brodrick, ed. New York: Praeger: 42–68.
- Beaux, N. 1990. *Le Cabinet de curiosités de Thoutmosis III: Plantes et animaux du "Jardin botanique" de Karnak*. Leuven. *Orientalia Lovaniensia Analecta* 36.
- Chevallier, B. 1993. Malmaison: An imperial country house. *Antiques* 143/4: 572–83.
- Cooper, J. 1983. *The curse of Agade*. Baltimore: Johns Hopkins University Press.
- Croke, V. 1997. *The modern ark: the story of zoos, past, present and future*. New York: Scribner's.
- Curtis, J. E. and Reade, J. E. 1995. *Art and empire: treasures from Assyria in the British Museum*. New York: Abrams.
- Dalley, S. 1994. Nineveh, Babylon and the Hanging Gardens: cuneiform and classical sources reconciled. *Iraq* 56: 45–58.
- Davies, M. 1940. Amenemhab encountering a hyena. *Journal of Egyptian Archaeology* 26: 82.
- Delumeau, J. 1995. *History of paradise: The Garden of Eden in myth and tradition*. New York: Continuum Press.
- Dixon, D. M. 1969. The transplantation of punit incense trees in Egypt. *Journal of Egyptian Archaeology* 55: 55–65.

- Finkel, I. J. 1988. The hanging gardens of Babylon. In *The seven wonders of the ancient world*, P. Clayton and M. Price, eds. London: Routledge: 38–58.
- Foster, B. R. 1995. *From distant days: myths, tales, and poetry of ancient Mesopotamia*. Bethesda, MD: CDL Press.
- Foster, J. L. 1974. *Love songs of the New Kingdom*. New York: Scribner's.
- al-Fouadi, A. H. 1969. *Enki's journey to Nippur: the journeys of the Gods*. Ph.D. dissertation, University of Pennsylvania.
- Held, J. S. and Posner, D. 1971. *17th and 18th century art*. New York: Abrams.
- Herzog, R. 1968. *Punt*. Glückstadt: Deutsche Archäologische Institut in Kairo.
- Hoage, R. J. and W. A. Deiss, eds. 1996. *New worlds, new animals: from menagerie to zoological park in the nineteenth century*. Baltimore: Johns Hopkins University Press.
- Houlihan, P. F. 1996. *The animal world of the pharaohs*. London: Thames and Hudson.
- Hugonot, J.-C. 1989. *Le jardin dans l'Égypte ancienne*. Frankfurt: Europäische Hochschulschriften 38/27.
- Ives, R. 1996. *Of tigers and men: entering the age of extinction*. New York: Doubleday.
- Kitchen, K. A. 1971. Punt and how to get there. *Orientalia* 40: 184–207.
- Kovacs, M. G. 1989. *The Epic of Gilgamesh*. Stanford: Stanford University Press.
- Lichtheim, M. 1973. *Ancient Egyptian literature*. Berkeley: University of California Press.
- Manniche, L. 1989. *An ancient Egyptian herbal*. Austin, TX: University of Texas Press.
- Parker, R. A. 1940. A late demotic gardening agreement. *Journal of Egyptian Archaeology* 26: 84–113.
- Parkinson, R. B. 1991. *Voices from ancient Egypt: an anthology of Middle Kingdom writings*. Norman, OK: University of Oklahoma Press.
- Raby, P. 1996. *Bright paradise: Victorian scientific travellers*. Princeton: Princeton University Press.
- Reade, J. E. 1983. *Assyrian sculpture*. London: British Museum Press.
- Russell, J. M. 1991. *Sennacherib's Palace Without Rival at Nineveh*. Chicago: University of Chicago Press.
- Simpson, W. K. et al. 1973. *The literature of ancient Egypt: an anthology of stories, instructions, and poetry*. New Haven: Yale University Press.
- Smith, W. S. 1962. The land of Punt. *Journal of the American Research Center in Egypt* 1: 59–60.
- Spongberg, S.A. 1990. *A reunion of trees: the discovery of exotic plants and their introduction into North American and European landscapes*. Cambridge, MA: Harvard University Press.
- Wilkinson, C. K. 1983. *Egyptian wall painting*. New York: Metropolitan Museum of Art.
- Wilson, S. M. 1992. The Emperor's giraffe. *Natural History* 101/12: 22, 24–25.
- Wiseman, D. J. 1983. Mesopotamian gardens. *Anatolian Studies* 33: 137–44.
- Wreszinski, W. 1923. *Atlas zur altägyptischen Kulturgeschichte*. Leipzig: Neimeyer.

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