



---

## The Hanging Gardens of Nineveh

Author(s): Karen Polinger Foster

Source: *Iraq*, 2004, Vol. 66, Nineveh. Papers of the 49th Rencontre Assyriologique Internationale, Part One (2004), pp. 207-220

Published by: British Institute for the Study of Iraq

Stable URL: <https://www.jstor.org/stable/4200575>

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



*British Institute for the Study of Iraq* is collaborating with JSTOR to digitize, preserve and extend access to *Iraq*

JSTOR

## THE HANGING GARDENS OF NINEVEH\*

By KAREN POLINGER FOSTER

The carpet is not a story. It is a place, garden of crisscrossing pathways, labyrinth, fountain, pool, and stream.

Rosanna Warren, "Further Pages from the Notebooks of Anne Vervenie" (*The New Yorker*, 5 May 2003)

### *Introduction*

Though for over two millennia much has been written and said about the Hanging Gardens, they remain elusive.<sup>1</sup> Neither the extensive excavations at the city of Babylon nor the abundant contemporaneous cuneiform records have yielded convincing evidence for these gardens and their associated structures.<sup>2</sup> Herodotus says not a word about them.<sup>3</sup> Instead, we have the descriptions of five later writers, who were themselves quoted and paraphrased by others and whose accounts of the gardens are often opaque, contradictory, and technologically baffling at best.

Briefly and in approximate chronological order, the principal sources are as follows: first, the *Babylonica* of Berossus, written about 280 BC, which does not survive save in quotations and condensations from it in other sources, among them two works by the first-century AD Josephus, who twice quotes the short note about the gardens; second, the listing in "On the Seven Wonders", a text preserved solely in a ninth-century Byzantine codex whose Hellenistic source, often doubted, may be Philo of Byzantium, Alexandrian author of engineering treatises about 250 BC; third, a long description by Diodorus Siculus in the mid-first century BC, which he apparently based on the undoubtedly second-hand accounts in the now lost *History of Alexander* by Cleitarchus of Alexandria and on the fanciful description of Babylon by Ctesias, a Greek physician at the Persian court around 400 BC; fourth, a passage in Strabo's *Geography* of the early first century AD, which he may have based on a lost text of Onesicritus, a contemporary of Alexander the Great; and fifth, a passage in the mid-first century AD *History of Alexander* written by Quintus Curtius Rufus, probably also based on Cleitarchus and Ctesias.

This is the sum of the documentary evidence for the gardens, and a very small sum it is indeed. Yet these plantations, as well as their city, have exerted a powerful hold on Western imagination.<sup>4</sup> Beginning with Philo's list, the walls of Babylon also appear as one of the Wonders regularly enumerated by Greek and Latin authors, part of the new emphasis on the achievements of mankind, especially Alexander, as opposed to those of the gods.<sup>5</sup> Writers of early medieval Western

\* For numerous references and wise counsel, I am grateful to Pauline Albenda, Leigh-Ann Bedal, Stephanie Dalley, John Darnell, Benjamin Foster, Eckart Frahm, Dimitri Gutas, and David Stronach, as well as to audience members at the London RAI and the Oriental Club of New Haven, where preliminary versions of this paper were presented.

<sup>1</sup> Among recent discussions of the textual and archaeological evidence, or lack thereof, see Romer and Romer 1995: 107–28; Finkel 1988: 38–58; Dalley 1994; Reade 2000; Stevenson 1992.

<sup>2</sup> Proposals advanced over the past century for where the gardens might have been at Babylon are evaluated by Stevenson 1992: esp. 43–5; Finkel 1988: 52–5; Reade 2000, whose topographical approach considers the pros and cons of Babil, Kasr, and the Western Outwork.

<sup>3</sup> While many maintain that Herodotus' account of Babylon shows him to have been ill-informed, confused, or downright mendacious, Dalley 1996, 2003 argues for his

rehabilitation as a truthful, reliable source. His silence on the gardens is usually taken as proof that he never in fact went to Babylon, though he could surely have added their description to the other, supposedly second-hand information he purveys. If, however, Herodotus was a faithful reporter, Dalley holds that he failed to mention the famous gardens for a very simple reason: they were not at Babylon, but at Nineveh. For further on this matter, see *infra* n. 57 and the Conclusions.

<sup>4</sup> For recent treatments of the subject in its wider context, see Dalley 1998; Glassner 2003; Lundquist 1995.

<sup>5</sup> Romer and Romer 1995: x–xii, Appendix. On the authorship of the Byzantine copy of Philo's list, see Haynes 1957, who supports its "good Hellenistic source". But Dalley 2002: 70, 72 ascribes it to Philo the Paradoxographer of Byzantium, "not to be confused, as he often is, with the much earlier Philo of Byzantium the Engineer".

Europe compiled their own Wonder lists of seven, their content and number now imbued with Christian significance. The Hanging Gardens often figure in these lists, less so the walls, despite their authors' reservations about favoring any monuments of sinful Babylon, no matter how extraordinary. Retaining the gardens became more palatable once the Renaissance cardinals had built so-called hanging gardens of their own, apparently modeled on the terraced Roman riverbanks of Augustus, neatly fusing two features of the pagan past with the papal present.<sup>6</sup>

### *Picturing the Hanging Gardens*

In 1572 the Dutch artist Martin van Heemskerck produced a set of drawings for his *Octo Mundi Miracula*, counting separately the walls and the gardens, both shown on the "Babylonis" illustration.<sup>7</sup> Inspired by his youthful sojourn in Rome, van Heemskerck's pictures meld the pageantry and monuments he admired there with classical, biblical, and Gothic imagery. His Babylon has massive walls as far as the eye can see, dominating the foreground and encircling a Europeanized cityscape. In the distance, across the river are the Hanging Gardens, rendered as a three-storey Renaissance palazzo, with trees growing on the roof. A localizing touch of the exotic comes in the form of a palm among the trees and a lion charging a statuesque equestrian figure, crown upon flowing tresses, perhaps meant to be Semiramis, legendary queen of Babylon. Prints of van Heemskerck's drawings became widely popular, serving for one hundred and fifty years as the basis for most pictorializations of the Seven Wonders in numerous media.

With the 1721 publication of Fischer von Erlach's folio, *Entwurf einer historischen Architektur*, the Seven Wonders were for the first time drawn taking into account the ancient numismatic evidence for their appearance.<sup>8</sup> Since this was lacking for the gardens, the "Spectacula Babylonica" page shows an aerial view of vast, formal beds laid out in baroque patterns between the Tower of Babel and the river. Though many aspects of von Erlach's depiction may be discounted, his vision comes close to what I suggest here is the essential wonder of the Hanging Gardens.

Archaeological discoveries in Mesopotamia, as well as the widening accessibility of cuneiform sources, even if only peripherally relevant, resulted in reconstruction images of the Hanging Gardens increasingly attempting to synthesize the Assyro-Babylonian evidence with the classical accounts. Koldewey's 1903 excavation of a vaulted building in the Southern Palace of Babylon led him to propose a rendering of trees planted on its terraced roof, supported by the arches.<sup>9</sup> Ten years later, Charles Sheldon painted the gardens rising on ziggurat-like tiers, the lowest levels resembling Koldewey's vaults and the upper ones echoing van Heemskerck's vision.<sup>10</sup>

In the 1970s, as part of the Archaeological Revival of Babylon project, renewed attention was paid to identifying the site of the gardens.<sup>11</sup> A rudder-shaped piece of land on the Euphrates just north of the Western Outwork seemed a prime candidate. The watercolor rendering published by Wiseman depicts terraced plantings on two sides, artificial streams coursing down, and a small pavilion, the whole visible and accessible from the Northern Palace, perhaps *via* a raised way or bridge.<sup>12</sup> In Damerji's reconstruction, tall trees grow on riverside terraces along the western side of the Western Outwork.<sup>13</sup> Reade pictures more formally arranged trees and bushes on terraces on the Western Outwork, visualizing allusions to wild-animal parks in glazed-brick lion-hunt scenes flanking one of the entrance gates to the garden.<sup>14</sup> In Stevenson's proposal, focused on the challenges of irrigating the Hanging Gardens, glazed bricks decorate sets of stepped towers with waterwheels attached and trees thickly planted atop.<sup>15</sup>

Most recently, Dalley's revised reconstruction features trees growing on a curving colonnade overlooking elaborately planted hillsides sloping down the the river's edge: this not situated at

<sup>6</sup> Romer and Romer 1995: 189–94. For further on the Renaissance "hanging gardens," see *infra* n. 107.

<sup>7</sup> Romer and Romer 1995: 201–3, "Babylonis" on 202.

<sup>8</sup> Romer and Romer 1995: 222–3, "Spectacula Babylonica" on 222.

<sup>9</sup> Koldewey 1914: 91–100, with discussion of the difficulties in interpreting the classical sources, quoted in the original; reconstruction drawing Pl. 7 in Koldewey 1931, not 1914

as often cited. I am grateful to Ulla Kasten for assistance in this matter.

<sup>10</sup> Romer and Romer 1995: Pl. 18.

<sup>11</sup> Alwan 1979; Nagel 1979.

<sup>12</sup> Wiseman 1985: 56–9, Fig. 7, Pl. II; Wiseman 1983: 140–1.

<sup>13</sup> Damerji 1981: 61–58, Fig. 8.

<sup>14</sup> Reade 2000: Fig. 11.

<sup>15</sup> Stevenson 1992: Figs. 2, 10, 11.

Nebuchadnezzar's Babylon at all, but at Sennacherib's Nineveh.<sup>16</sup> In this paper, I propose that hanging gardens were indeed among Sennacherib's innovations at Nineveh, but that they hung in a rather different sense from that usually envisioned.

### *The hanging of gardens*

Gardens may hang in three principal ways: (1) trees and bushes grow on substantial structures, looming or hanging above the head of the viewer; (2) vines trail over the edges of rooftops, terraces, and pergolas, again looming or hanging above the head of the viewer; and (3) plants grow in a sunken area, such that the viewer looms or hangs over the garden, even as the plants appear to be suspended or hanging without visible means of support.<sup>17</sup> It is this third type of hanging garden that engages our attention in the present study, particularly its ideological and perspectival dimensions.

Simple sunken beds figure early on in the repertory of Egyptian garden designs, valued especially for their water-retentive qualities.<sup>18</sup> In the Northern Maru and Central Palace of Akhenaten at Amarna *ca* 1340 BC, these were elaborated into complexes comprising pools, viewing terraces, and architectural elements with ideological iconography, features that eventually became standard components of sunken, hanging gardens. As Akhenaten sought to establish numerous religious and aesthetic innovations, he seems to have begun to develop a new type of garden, yet another vehicle for purveying his world view. From the bound foreign captives painted on the walkways to the balconies from which the royal family could gaze down upon the ensemble, the sunken gardens of Amarna "recreated a true microcosm of the universe".<sup>19</sup> Though Amarna certainly provides a prototype, there the painted and tiled elements, rather than the plantings, bore the message. Another prototype, less well preserved, may be seen in the sunken pool and low-walled garden in two of the courtyards of the roughly contemporaneous palace at Ugarit.<sup>20</sup>

The first archaeological evidence for veritable hanging gardens comes from the palaces of the Achaemenid kings. At Pasargadae in the mid-sixth century BC, Cyrus the Great laid out a large ornamental garden (*ca* 100 × 150 m), whose ground-level stone irrigation channels divided it into four sections, the whole overlooked by two pavilions and a palace, with the throne room in one of the porticoes.<sup>21</sup> Across the Chaour River from the Susa acropolis, Artaxerxes II in the early fourth century BC constructed a residential palace and hypostyle hall surrounding a sunken garden (*ca* 70 × 55 m), no doubt quadripartite in plan, to judge from the lines of sight extending from the buildings.<sup>22</sup> Both gardens capitalized on the practical advantages of irrigating level or sunken plantings and turned them to ideological gain by creating viewing axes emanating from the throne in an expression of centralized royal authority.<sup>23</sup>

These and other forms of Persian gardens seem to have inspired the development of the ornamental, pleasure garden tradition in the Greek world. Hellenistic palaces from Vergina to Alexandria began to include *paradeisoi*, literally in Old Persian "wall-surrounded" gardens, but more broadly used of the new game preserves, hunting parks, and other outdoor entertainment complexes.<sup>24</sup> Sunken, hanging gardens with vistas of power were integrated into ever more ambitious settings for rulers. By the first century BC, the palace of Alexander Jannaeus at Jericho, for instance, had an impressive recreational area featuring sunken gardens (*ca* 20 × 30 m), swimming pools, and viewing pavilions.<sup>25</sup> At Petra, the Nabataean kings carved a monumental pool complex deep into the cliffs to the east of the Great Temple, a site formerly thought to be the Lower Market.<sup>26</sup> The sunken gardens, artificial waterfalls and other hydraulic engineering feats, and an island pavilion centered in a large pool overlooked the Colonnaded Street and were themselves perhaps meant to be viewed from the residential quarters higher up the escarpment.

<sup>16</sup> Dalley 2002: Fig. 1; for her earlier rendering, see Dalley 1994: Fig. 3, also Dalley 1993b for her first presentation of the thesis.

<sup>17</sup> Pieper 1988.

<sup>18</sup> Wilkinson 1998: 8; Carroll 2003: 23.

<sup>19</sup> Wilkinson 1998: 159, also Fig. 85 and discussion 156–63.

<sup>20</sup> Curtis 1985: 49–52.

<sup>21</sup> Stronach 1978: 107–10, Fig. 48.

<sup>22</sup> Boucharat and Labrousse 1979: 53–4, Fig. 25. Another

sunken garden was built in one of the palaces below the Persepolis terrace (Nielsen 1994: 50).

<sup>23</sup> Stronach 1994a: 8; as Stronach points out here, the reconstruction in Time-Life 1987: 30 has overly tall trees blocking the view, which he aptly terms the "vista of power".

<sup>24</sup> Nielsen 1994; Osborne 1992. See also *infra* n. 104.

<sup>25</sup> Nielsen 1994: 156.

<sup>26</sup> Bedal 1999, 2000: Fig. 3.12. Pending further excavation, the garden seems to have been over 50 m wide.

The Romans sunk garden beds deep within palaces and villas, creating cool oases whose water systems augmented the moisture naturally collected therein.<sup>27</sup> The most fully realized of these were built in Herodian Palestine, especially at the Third Winter Palace at Jericho.<sup>28</sup> Massive earth moving and exploitation of the existing topography resulted in an enormous pool beside a monumental sunken garden (*ca* 120 × 40 m) intended to be viewed from several vantage points: colonnades at either end, a pavilion atop an artificial mound, and the elevated palace across the wadi. Aligned with this last vista and on the garden's long sides were two theatre-like recesses, in which potted plants seem to have been arranged on the tiers, a sort of hanging garden within hanging garden.

There is little evidence for the post-Roman development of the sunken garden until the early Islamic period. From the eighth century on, Arab scholars engaged in serious botanical research, as well as in the translation of Greek horticultural treatises.<sup>29</sup> At the Samarra country retreat of the Abbasid caliphate in the ninth century, architectural and garden designs made explicit the connection between visual and social hierarchies.<sup>30</sup> The ruler, elevated in his central thone chamber, gazed down upon irrigated gardens, while in the distance were the territories he controlled.

Following the establishment of the Umayyad caliphate in al-Andalus in 929, Abd al-Rahman III began construction of his palatial city at Madinat al-Zahra, near Cordoba.<sup>31</sup> Sunken gardens, watercourses, and pools were cut into the hillside, aligned below the throne room and reception halls. Contemporaneous descriptions of ceremonies report that the caliph sat on a raised throne, with members of the court arrayed in diminishing rank as they radiated out across the garden.<sup>32</sup>

The use of sunken, hanging gardens to express sovereignty over lands and peoples was brought to perhaps its most complete expression in the eleventh/twelfth-century palace gardens of the Alhambra and Seville.<sup>33</sup> Miradors, or lookout points strategically introduced into the palace walls, further refined the concept of vistas of power. As verses inscribed in the Alhambra make clear, "In this garden I am an eye filled with delight and the pupil of this eye is none other than my lord".<sup>34</sup> The planted beds and their associated water channels were sunk ever more deeply: nearly a meter in the original gardens of the Court of the Lions in the Alhambra, two and five meters in the palace gardens in Seville.<sup>35</sup> With increasing depth, the built surrounds became more substantial, including stuccoed and painted walls, blind arches, and ingeniously incorporated water systems.

Later versions of these gardens, with similar ideological programs, appear throughout the Indo-Islamic world, especially in the sixteenth/seventeenth-century Lahore gardens of Akbar, Jahangir, and Shah Jahan.<sup>36</sup> At the same time, new ways of depicting space appear in Mughal painting, a coincidence that "cannot be by chance"<sup>37</sup> and one with much relevance to our discussion of Sennacherib's Nineveh, as we shall see. The Andalusian gardens were also imitated at Olite, the fourteenth-century palace of the kings of Navarre, which combined northern architecture with southern miradors and horticultural traditions.<sup>38</sup>

Arabic and Spanish sources provide valuable insights into the intended significance of hanging gardens, beyond orchestrating vistas of power across microcosms of sovereignty. Miradors and viewing pavilions were also to encourage contemplation, as Ibn Luyun advises in his fourteenth-century poem-treatise on agriculture, often dubbed the Andalusian Georgics.<sup>39</sup> In addition, many

<sup>27</sup> Koldewey 1914: 99 notes the Ottoman parallel of inter-weaving palm leaves and *agul* to make window lattices, which are continually sprinkled with water so that air passing through "cools the room to a very remarkable degree".

<sup>28</sup> Netzer 1977: Fig. 10; Netzer 1981: Fig. 138.

<sup>29</sup> Harvey 1981: 38–45; Bolens 1981, esp. ch. 4 on the transmission of classical and Byzantine traditions to Islamic Spain.

<sup>30</sup> Ruggles 1994.

<sup>31</sup> Ruggles 2000.

<sup>32</sup> Ruggles 1992: 166. Aspects of the Madinat al-Zahra gardens were copied in the eleventh-century palaces of Qala Bani Hammad in Islamic North Africa (Ruggles 1994: 40).

<sup>33</sup> Ruggles 1992; Dickie 1976; Tabbaa 1992: 319.

<sup>34</sup> Ruggles 1992: 169, see also Fig. 11 for the sight-lines of the Alhambra complex.

<sup>35</sup> Ruggles 1992: 170; Dickie 1976.

<sup>36</sup> Jellicoe 1976; Wescoat and Wolschke-Balmahn 1996.

<sup>37</sup> Beach 1996: 2.

<sup>38</sup> Gainza 1985: 318–23. I am grateful to Cesar Rodriguez for assistance with the Spanish description of these gardens. See also Harvey 1981: 45.

<sup>39</sup> Ibañez 1988: 272–4. In the often quoted passage in question, the last in a set of complementary notes to 150 sections treating agricultural minutiae, the author's primary concern is to ensure proper surveillance of a garden by a watchman. Almost as an afterthought, Ibn Luyun mentions the value of contemplation *via* miradors and central kiosks, in a more prosaic mode than those who cite him would have it. A reclusive ascetic who scarcely left his native Almeria, Ibn Luyun was unlikely ever to have seen any hanging gardens. But descriptions of their salient features must have reached him, for otherwise why include such relative lyricism in a work filled with dry pronouncements?

writers report that the plants were trimmed level with the walkways, producing the effect of a richly detailed carpet, wondrously suspended.<sup>40</sup>

Before taking up the close, mutually imitative relationship between carpets and gardens, which is of particular significance in the present study, I should note that sunken, hanging gardens were generally not part of the medieval, Renaissance, and later traditions elsewhere in Europe. Though Arabic scholarship in horticulture greatly influenced the development of European pleasure gardens, most climatic conditions favored raised rather than sunken beds.<sup>41</sup> Parterre gardens, with their lace and brocade patterns meant to be appreciated from above,<sup>42</sup> offer the closest parallels, but the difference lies in the essential presence of the ground in parterres, as their very name indicates, and its seeming absence in hanging gardens. As for vistas of power, these became more overtly theatrical, especially in seventeenth-century England, with the sight-lines of garden, stage, and illusionistic scenery converging upon the focal point of the enthroned ruler.<sup>43</sup>

#### *Garden carpets and carpet gardens*

When the Arabs conquered the Sassanian capital of Ctesiphon in 636/7, they discovered in the throne room an enormous carpet (*ca* 30 × 150 m), called “The Springtime of King Chosroes”, which they cut into small pieces as war booty.<sup>44</sup> The chroniclers report that the rug depicted a series of garden beds framed by watercourses, with the trees and flowers picked out in gold and silver threads, the gravel paths studded with seed pearls, the border shrubs bejeweled with precious stones, and the streams sparkling with blue gems. Memories of this extraordinary garden carpet and enthusiasm for pre-Islamic manifestations of royal power may have inspired the early Abbasids to install in their palace garden in Baghdad a gold and silver tree on whose branches gold and silver birds were said to sing when the wind stirred them.<sup>45</sup>

As we have seen, the tradition of gardens spread like sumptuous carpets before the king was brought to Spain in the tenth century. The Andalusian rugs themselves are among the oldest surviving examples from the Islamic world. Distinguished by the “Spanish knot”, made by wrapping wool around a single, alternate warp in successive rows, instead of around the standard double warp, these carpets include iconography drawn from Iberian, Islamic, and Christian motifs, Roman mosaic pavements, and heraldic, Gothic, and Renaissance designs.<sup>46</sup> Their relatively light weight, thanks to their knotting system, as well as their eclecticism, made them popular exports from Egypt to England.<sup>47</sup>

Garden carpets returned to more direct renderings of actual sunken beds, quadripartite plans, and fish-filled watercourses with the Persian rugs woven in the early seventeenth century during the reign of Shah Abbas, which served as models for subsequent carpets of this type.<sup>48</sup> In explicit reference to their living counterparts, poems inscribed on some of these rugs compare them to “a wild white rose” or “a garden full of tulips”.<sup>49</sup>

For their part, gardens began to feature additional elements with textile characteristics, such as the *chadar*, a stone water-chute with intricate patterns carved in the trough.<sup>50</sup> As the water flows down the chute, the relief work beneath creates the illusion of a liquid carpet, complete with fringe-like foam at its base. Other gardens featured tiled niches meant to imitate wall hangings.<sup>51</sup> Nineteenth-century European travelers to Persia admired flower petals floating in profusion in garden pools divided into compartments similar to those in contemporaneous carpets.<sup>52</sup> Today, the carpet garden survives in diverse settings, among them the Grand’ Place in Brussels, where 600,000 cut tuberous begonias are arranged biannually to form a prodigious Belgian rug.<sup>53</sup>

<sup>40</sup> Visiting in the seventeenth century the eleventh/twelfth-century Crucero hanging gardens of Seville, which survived until the tremors associated with the 1755 Lisbon earthquake, Rodrigo Caro observed of the orange trees that “the tops of the trees almost reach the level [of the paths]” (quoted in Dickie 1976: 97). See also Harvey 1981: 44.

<sup>41</sup> Harvey 1981: 17–22.

<sup>42</sup> Thacker 1979: 139–40; Ross 1998: 26.

<sup>43</sup> Hunt 1986: 119; Orgel 1975: 10.

<sup>44</sup> Nichols 1924: 12–16; Leisten 1993: 73–5; Welch 1997:

<sup>45</sup> Welch 1997: 388.

<sup>46</sup> Kühnel and Bellinger 1953.

<sup>47</sup> Kühnel and Bellinger 1953: 11–12.

<sup>48</sup> Wilber 1979: 12–13, 15, 23, 90.

<sup>49</sup> Dimand 1979: 283.

<sup>50</sup> Lehrman 1980: Figs. 78–80, 107.

<sup>51</sup> Nichols 1924: 249.

<sup>52</sup> Wilber 1979: 15.

<sup>53</sup> Orr 2001.

Two millennia earlier, Ptolemy II in mid-winter is said to have scattered fresh flowers on the floor of his banqueting pavilion and hung animal pelts on the walls, in the words of Athenaeus, “truly presenting the picture of a beautiful meadow”.<sup>54</sup> Plutarch occasionally mentions carpetlike gardens.<sup>55</sup> These were presumably patterned after the Mesopotamian carpets eagerly sought by the Greeks and Romans, so prized that Nero, for instance, paid four million sesterces for a single rug.<sup>56</sup> The classical sources refer fairly interchangably to these textiles as Babylonian or Assyrian, either because they had little knowledge of the rugs’ provenance, or because they routinely confused and conflated the two places, a matter to which we shall return.<sup>57</sup>

There are few examples of knotted carpets and pile textiles from the ancient world. The origins of the industry are obscure, though the discovery in Transcaspian women’s graves of knives similar to modern pile-cutting implements suggests a beginning at least by the mid-second millennium, apparently in the Turkmenia/northeastern Iran region.<sup>58</sup> Carpet fragments have been recovered from several sites in the Near East and Central Asia, dating from the ninth to the early fourth centuries BC.<sup>59</sup> The most complete is the Pazyryk Carpet, from western Siberia, probably made in the fourth century, with compartmentalized cone and palmette motifs bordered by floral and faunal designs showing Achaemenid and indigenous iconography.<sup>60</sup> Ancient Egyptian hangings and floor coverings are seldom looped textiles, their patterns instead produced by leather and braided appliquéd techniques, embroidery, and tapestry work.<sup>61</sup> Bronze Age Aegean sites have yielded no such textiles; the painted floors of the Minoan and Mycenaean palaces probably imitate stone slabs rather than pieced carpet squares.<sup>62</sup>

The dearth of artifactual carpets from the ancient Near East is somewhat offset by the considerable, if ambiguous at times, pictorial and textual evidence for these items, the people who knotted them, and the use made of them. In royal contexts of the first millennium BC, especially the Neo-Assyrian and Achaemenid palaces, pile rugs came to be intimately associated with power and prestige. I propose that garden carpets and carpet gardens were among the innovations Sennacherib devised for his “Palace Without Rival” at Nineveh, the original setting for the Hanging Gardens.

#### *Royal designs at Nineveh*

There are numerous text references pertaining to carpets, fringed cloths, hangings, floor coverings, and knotted goods from the Old Assyrian period on, though it is often difficult to determine precisely what techniques were used to manufacture these textiles.<sup>63</sup> Of particular interest for the present inquiry is the long-standing association of carpets, gardens, and kings. At early second-millennium Mari, for example, Zimri-Lim writes in a letter that he intends to take a “Yahmad-style” carpet made in Mari to Babylon as a royal present.<sup>64</sup> Also at Mari, the faience inlays with carpet-like patterns from Court 70, as well as the unique fringed border and other textile features of the Investiture wall painting from the Court of the Palm,<sup>65</sup> would seem to bring together textiles and royal imagery, a connection underscored by the direct relationship between the Court of the Palm and the throne room. The former, recently reconstructed with a centered, single palm set in a stone base, could have been viewed from above, anticipating future developments.<sup>66</sup>

From a Middle Assyrian coronation ritual of Tukulti-Ninurta I, we learn that a textile is to be spread and the throne set down.<sup>67</sup> No further details are given, but in an inventory compiled during

<sup>54</sup> Quoted in Bedal 2000: 248.

<sup>55</sup> Leisten 1993: 73.

<sup>56</sup> Meissner 1947; Riefstahl 1944: 46; Barrelet 1977: 88–90. On Graeco-Roman mosaic floors with carpet designs from the Near East, including one discovered in the 1850s near Nineveh, see Reade 2001b: 192–3.

<sup>57</sup> On Greek and Roman awareness of Mesopotamia, see Kuhrt 1982, 1995.

<sup>58</sup> Dalley 1991: 118–19; Stronach 1993: 19–20.

<sup>59</sup> Barber 1991: 199–202; Bier 1995.

<sup>60</sup> Rudenko 1970; Stronach 1993; Robinson 1990; Böhmer and Thompson 1991.

<sup>61</sup> Riefstahl 1944: esp. Figs. 19, 32, 33, 51.

<sup>62</sup> Hirsch 1977, 1980. The same may be true of the painted

squares in a Lycian tomb, or they may denote a small rug (Mellink 1976: 378–9).

<sup>63</sup> These are collected and discussed in Mayer 1977; Barrelet 1977; Dalley 1991. See also CAD s.v. *mardatu*, *kamidu*, *sala'u*, *śiddu*. On this last as carpet, given its use, see Maul 1994: 55.

<sup>64</sup> Dalley 1984: 52.

<sup>65</sup> On the Court 70 faience inlays, see Moorey 1994: 175; Pierre 1987: 557. On the textile elements in the Investiture mural, see Pierre 1987: 569–70.

<sup>66</sup> Margueron 1987.

<sup>67</sup> Müller 1937: 13, 31–2, where he suggests it might be an animal pelt instead of a man-made item, which seems unlikely.

the same king's reign, two elaborately figured items are listed, one the work of a weaver, the other made by a knitter.<sup>68</sup> In the motifs — rosettes, people, animals, and fruit trees — it is tempting to see a hint of the palace gardens of the period.

With the Neo-Assyrian kings, decorated and decorative textiles became increasingly fundamental aspects of royal iconography. On a small scale, these include the garment bands adorned with gold appliqués, popular especially in the reign of Assurnasirpal II.<sup>69</sup> On a larger scale, we may trace thrones and their textiles, from the simple, unadorned stools of Assurnasirpal II to the lavishly draped and cushioned thrones of Sennacherib and Assurbanipal.<sup>70</sup> Beginning with the wall paintings and reliefs of Tiglath-Pileser III, fringed or plain heavy textiles are shown draped over high throne-backs, with matching pieces covering the seats. It is interesting that on the rare occasion when an unoccupied throne is depicted, its back and seat are bare, implying that textiles were directly associated with the person of the ruler.<sup>71</sup> The king's chariot and wheeled throne follow suit in their rug-like furbishings.<sup>72</sup>

The sculptured stones of Neo-Assyrian palace thresholds provide the best indication of what royal carpets may have been like.<sup>73</sup> By the time of Sargon II, slabs with overall grid patterns of framed rosettes and texts in panels had supplanted the undecorated, inscribed stones of his predecessors. As the designs became more complex during Sargon's reign, the text panels diminished in importance until they virtually ceased to figure in the thresholds of Sennacherib at Nineveh. These featured such motifs as elaborate quatrefoil emblems composed of a central rosette, four lotuses, and four buds, bordered by rosettes. The borders displayed rosettes and lotus-and-cone garlands. Assurbanipal continued to use most of these elements, as well as a central field design of interlocking six-rayed stars. In several of his thresholds, hatched lines reinforce the fringed effect of the lotus-and-bud outer borders. Certain of these intricate patterns may have been royal prerogatives; they also likely had apotropaic powers, the six-rayed stars and rosettes invoking the protection of Ishtar, the floral quatrefoils Shamash.<sup>74</sup>

Sennacherib's installation of more carpet-like thresholds was among the numerous innovations of his "Palace Without Rival", as he sought to make Nineveh a spectacular imperial city.<sup>75</sup> Some new features involved additions to the repertory, for example, novel types of apotropaic figures and winged sphinxes as gateway colossi. Others entailed deletions, such as the so-called sacred tree<sup>76</sup> and scenes of tribute processions, hunting, and royal banqueting, in favor of emphasis on the acquisition of building materials for the palace. The wall reliefs, like the thresholds, were uninscribed, opening unbroken expanses for compositional experimentation in the realms of space and time. Sennacherib's reliefs were the first in Assyrian art to use consistently and monumentally a "high viewpoint and surface patterning in order to represent a visually satisfactory perspective".<sup>77</sup>

The innovations within the palace were complemented by new developments in the royal gardens.<sup>78</sup> Though horticulture and hunting had long played important roles in the ideology and iconography of Mesopotamian kingship, it was with the Assyrian kings that gardens assumed a

<sup>68</sup> Barrelet 1977.

<sup>69</sup> Canby 1971, who argues convincingly that these are not embroidered patterns, as usually thought.

<sup>70</sup> On thrones and footstools, Salonen 1963: 262–7; Oates and Oates 2001: 232–4.

<sup>71</sup> E.g. Stronach 2002; Barnett and Falkner 1962: Pls. VIII, XVIII, XIX, LIX, LXIII, LII (empty throne); Paterson 1912: Pl. 85; Bier 1995: 1583–5. According to Xenophon, only the Persian king could walk upon certain carpets (Rudenko 1970: 299).

<sup>72</sup> E.g. Paterson 1912: Pls. 108–9 (chariots); Gadd 1936: Pl. 23 (wheeled throne). Reade 1980b: 104 suggests that the curious conveyance of the wheeled throne was used solely in Assyria and Babylonia.

<sup>73</sup> Albenda 1978; Dalley 1991: 127 questions their connection with carpets, pointing out, among other things, that the fringe is apparently on three sides, a textile impossibility. These are perhaps added tassels, or a combination of warp threads and tassels. As for the actual carpets, these may have been placed in other doorways in palatial and non-palatial contexts.

<sup>74</sup> Albenda 1978: 3. Similar devices, as well as crenelated steps surely of textile origin, appear apotropaically on divine and royal garments, city walls, and siege engines (Oppenheim 1949). Russell 1991: 33 discusses several reasons why Sennacherib might have abandoned the protection hitherto afforded by threshold inscriptions.

<sup>75</sup> Russell 1991: esp. 18, 83, 181, 187, 189, 202, 216; Lumsden 2000.

<sup>76</sup> If, as Albenda 1994: 133 argues, kings and genies received power from the sacred tree, rather than the converse, then Sennacherib's omission of this Assyrian set-piece fits with his efforts to create new royal imagery, especially so far as gardens and plants are concerned. Yet the cone remains, usually shown with lotus flowers and stems, though the botanical link is puzzling (McDonald 2002: 125).

<sup>77</sup> Russell 1991: 222. See also Reade 1980a.

<sup>78</sup> There has been much written on Mesopotamian gardens. To the literature cited in Novak 2002, add Dalley 1986; Foster 1998; Leach 1982. On the destruction of gardens in practice, metaphor, and art, see Cole 1997.

central place in the manifestation of power and prestige. Beginning with Tiglath-Pileser I, plants and animals from conquered, controlled, and distant regions were assembled in palatial settings as living emblems of dominion. Assurnasirpal II and Shalmaneser III were the first to construct viewing terraces or platforms, bringing architecture into the service of empire. In the inscriptions of Tiglath-Pileser III, Sargon II, and Sennacherib appear the first mentions of the incorporation of the *bit hilani* into Assyrian palaces.<sup>79</sup> This porticoed unit, originally a raised area in the throne room/entrance suites of North Syrian palaces, became a significant element of Khorsabad and Nineveh, associated with decorated columns, special doorways and windows, and possibly directed vistas across gardens and landscapes.

In his annals and other inscriptions, Sennacherib largely echoes the descriptions of his father Sargon's building programs at Khorsabad, delighting in touting his own accomplishments in captive breeding, introduction of new species, and hydraulic engineering.<sup>80</sup> Both kings, but especially Sennacherib, tend to cast their narratives in a more literary form, employing new words and rare vocabulary, particularly for the gardens. Use of these terms highlighted the innovations, and, at the same time, in the replacement of the standard *kirû* (garden) by the Sumerian loanword *kirimahhu*, may have bestowed a measure of prestige and venerability upon the enterprise.<sup>81</sup>

As for the words of Hurrian and West Semitic origin, such as *ambassu* (hunting park/botanical garden) and *bitānu* (kiosk), these might have deliberately evoked the now firm control of the regions west of the Assyrian heartland.<sup>82</sup> But there would seem to be little justification for asserting that the garden forms themselves were imported from those areas, in concert with viticulture.<sup>83</sup> This last is certainly no longer tenable. Recent investigations have shown that viticulture was not introduced from the west to Assyria, but that the growing prevalence of grapevines and wine from Assurnasirpal II on derives from their increasing use as signifiers of power, fruitfulness, and divine association.<sup>84</sup>

I suggest that hanging gardens of the deeply sunken bed type first appeared in Sennacherib's Nineveh. As we have seen, gardens of this genre represent a convergence of five design considerations. First, there must be a strong desire for new vehicles for the royal message, which at once tap traditional approaches and create novel opportunities for expression. Second, there must be serious interest in horticulture, including the collection and propagation of exotic species as part of imperial ideology. Third, there must be a priority on technological innovations, particularly waterworks, and a high level of personal involvement by the ruler.<sup>85</sup> Fourth, there must be a thriving industry producing pile carpets and other decorative textiles, especially to be used in royal contexts. And finally, there must be new developments in art in terms of rendering space from a high vantage point and in architecture in terms of creating sight-lines and vistas of power.

All these are present at Sennacherib's Nineveh, though the evidence is far more indirect than we might like. Some insight into the appearance of such a hanging garden may be afforded by the Akitu (New Year) Temple that Sennacherib built on the outskirts of Assur after he sacked

<sup>79</sup> The standard study of the subject remains Frankfort 1952. One small point: in his view (122), Assyrian ornamented thresholds find parallels in those of the Syrian *bit hilani*, but the latter, at least at Zinjirli (von Luschan 1898: 143), are reused, overturned slabs with their sculptures chiseled off, rather than stones expressly carved. But it seems clear that the later Neo-Assyrian palaces imported luxury goods from North Syria, as well as various architectural, iconographic, and landscaping allusions, e.g. "a park like Mount Amanus in which were set out every tree of the land of Hatti". For discussion, text references, and proposals for where within Khorsabad and Nineveh the *bit hilani* may have been located, see Winter 1982. The "Syro-Hittite" columned reception suite discovered in 1974 between Kuyunjik and Nebi Yunus may be another *bit hilani* possibly built by Sennacherib (Postgate 1975: 60).

<sup>80</sup> For a survey of Sennacherib's projects, as well as the personality "behind the mask", with complete text references, see Frahm 2002: 1121–4. On the waterworks, see Bagg

2000; also Dalley 2001–2. On Sennacherib's river wall, which changed the course of the Khsor below Kuyunjik, see Stronach 1994b: 100–2.

<sup>81</sup> Discussed in Reiner 1991: 299; Oppenheim 1965: 331–3. Similar motivations may be seen in artistic revivals and reconstructions throughout Mesopotamian history (Roaf 2000).

<sup>82</sup> Stronach 1989: 478. Or, as Winter 1982: 364 puts it, the Assyrians' conscious adaptation of certain Western parkscapes and palace features "attests to the cultural importance of North Syria in the Assyrian mind".

<sup>83</sup> E.g. Deller 1987.

<sup>84</sup> McGovern 2003; Stronach 1995; Albenda 1974.

<sup>85</sup> Three Mesopotamian kings were exceptionally interested in technology: Gudea (architecture), Sargon II (metallurgy), and Sennacherib (metallurgy, especially casting techniques and materials) (Moorey 1994: 18). Both Cyrus the Great and Cyrus the Younger seem to have taken an active role in garden design (Stronach 1978: 110).

Babylon.<sup>86</sup> Since the Akitu Festival served, among other purposes, as a reaffirmation of kingship and on occasion as a coronation ceremony, its architectural and other features were closely linked with royal ideology. Andrae envisioned that from the roof of Sennacherib's temple, priests and other participants looked down upon a garden, perhaps of blossoming pomegranate bushes, a living carpet spread before the Assyrian gods in their niches and Assur in the cella. Beyond, the vista would have taken in the encircling orchards Sennacherib planted and the skyline of Assur, adding a territorial, Assyrian dimension to the traditional significance of the festival.<sup>87</sup> Was some of the earth Sennacherib removed from Babylon for display in the temple made into the walkways on which the king, gods, and other actors in the cultic drama trod?<sup>88</sup>

At Nineveh, much attention has been paid to working out where were the gardens outside the gates and walls, as well as to coordinating the representations of gardens with topography and archaeology.<sup>89</sup> There seem to have been four extramural garden areas, accessible from fittingly named gates: two, one of them the *ambassu*, on the north side; a marshland preserve on the east side along the Khosr; and a fourth ("Mount Amanus") perhaps on the west side near the Palace Without Rival. A fifth may have been on the terrace created after Sennacherib redirected the bend of the Khosr below the palace. If hanging gardens existed along the lines I have proposed, they would have been quite apart from these plantations. As we have seen in later examples of the genre, their structure necessitates an architectural context, nearly always a courtyard. The precise location must remain unspecified at present. As Dalley points out, "Nothing is known at this period about palace courtyard gardens, for excavators have traced only the edge of such courtyards, and inscriptions do not refer to them in detail".<sup>90</sup>

Esarhaddon and Assurbanipal, the successors of Sennacherib, seem to have continued the garden traditions at Nineveh.<sup>91</sup> In the well-known relief from Room S of the North Palace, Assurbanipal and his queen are the central points from which radiate the planted realms of private garden, palatial groves, and breeding marshland.<sup>92</sup> If the intriguing relief from Room H of the North Palace shows one of Sennacherib's gardens, wherever they may be, their vaulted aqueduct, criss-crossing streams, royal stele, and viewing pavilion seem in good order.<sup>93</sup>

<sup>86</sup> Andrae 1977: 62–9, Figs. 42, 44–6. See also his more atmospheric charcoal in Andrae and Boehmer 1992: Fig. 130 (view from the roof), Fig. 131 (view from the city). The Akitu Temple was one of many major projects Sennacherib undertook in Assur. According to his inscriptions, the king was displeased that unsettled times had caused the festival banquet to be held in a garden within the city. He therefore opened a processional way leading to a site outside the western wall, where he built, then rebuilt a temple, perhaps near an earlier one. Andrae wonders if the courtyard garden's blooming period coincided with the New Year, whence his suggestion (66) of pomegranates. On gardens as part of the Assyrian Akitu festival, see Oates and Oates 2001: 120–2. On the festival in general, see *RLA* s.v. *Neujahrsfest*. Interestingly, Koldevey 1914: 99 says the Assur Akitu garden makes a "striking analogy" for the Hanging Gardens, but then, without elaborating, he rejects the idea of an "inner garden court on the ground level...for some difficulties seem for the present to forbid it".

<sup>87</sup> Pongratz-Leisten 1977.

<sup>88</sup> Sennacherib's removal of earth or rubble from Babylon symbolized his determination to make Assur and its god the new cultic center of Mesopotamia (Frahm 2002: 1120; *CAD* s.v. *eperu*). A century later, Nabopolassar is said to have brought ashes from Nineveh in triumph to Babylon (Stronach 1997: 319). While Sennacherib says only that he piled the dirt in heaps and mounds in the temple, it seems plausible that some of it became the dust underfoot, given the prevalence of this action and metaphor. In a modern parallel, Saddam Hussein set a mosaic portrait of George H. W. Bush in the lobby floor of the Rashid Hotel in

Baghdad (Purdum 2003). On processions, especially back to the city, as the essential ceremony of the Akitu festival, see Cohen 1993: 404, 400–53 *passim*.

<sup>89</sup> For discussion, diagrammatic plans of Nineveh, and illustrations of the relevant reliefs, see Reade 1998a, 2001a; Novak 2002: Fig. 6; Lumsden 2000: Fig. 9; Stronach 1994b: 99–103, Figs. 3–5. In his paper, "Gardens at Neo-Assyrian Nineveh," given at the XLIVE RAI in Venice, Stronach suggested that "Mount Amanus" might have been on Kuyunjik, in the Lower Town area, or beyond the north wall.

<sup>90</sup> Dalley 1986: 369. Elsewhere (Dalley 2001–2: 215), she writes, "Presumably there was a more detailed account of the gardens [at Nineveh] which is not now extant..."

<sup>91</sup> Reade 2001a: 403, with Esarhaddon's own "Mount Amanus" perhaps near the Review Palace at Nebi Yunus and Assurbanipal's orchards beside the North Palace, also possibly on Kuyunjik.

<sup>92</sup> Albenda 1976, 1977. Though Schmidt-Colinet 1997 views Assurbanipal's companion as the royal eunuch, Albenda 1998 and Musche 1999 offer convincing arguments in favor of her traditional identification as the queen. On eunuchs in Assyrian pictorial hierarchy, see Reade 1972. Albenda 1976: 49. I think the scene might be set in Babylon, but now sees it as Nineveh (personal communication).

<sup>93</sup> Candidates for their location include Arbela (very unlikely) (Bagg 2002: 198); the Tigris side of Sennacherib's *bit hilani* (but see now Winter 1986 on external vs internal placement) (Reade 1980: 102); east of the Palace Without Rival (Dalley *supra* n. 16).

It is tempting to use this and other suggestive material to fill out our picture of a sunken, hanging garden in one of Sennacherib's courtyards.<sup>94</sup> The presence of a royal stele, which Reade calls "the Assyrian equivalent of a political poster",<sup>95</sup> would underscore the connection between king and garden, especially if it were placed (as in the Room H relief) at the head of a walkway, with a carpet of flagstones and plants unrolled before it. I would also envision that the royal view was framed by elaborately wrought columns (again, as in the Room H relief), inspired by the *bit hilani*. There would surely have been complex waterworks, visible and also perhaps cleverly concealed. The vegetation would have been as carefully trimmed as a pile carpet, with a profusion of vivid Assyrian flowers: Ox-eyed Sunflowers, lilies, pomegranates, mandrakes, and perhaps roses.<sup>96</sup>

Did this or other of the gardens survive the fall of Nineveh in 612 BC? Recent investigations indicate that any tampering with the water supply occurred after the city had already succumbed, victim of logistical factors, unfinished defenses, and poorly prepared gates.<sup>97</sup> Centuries later, at least part of the Palace Without Rival was still in use, and not by mere squatters.<sup>98</sup> It seems plausible that some palace gardens, or the tales of what Sennacherib said made Nineveh "a wonder for all people", lasted long enough to inspire a wondrous garden at Babylon, which had hitherto lacked a programmatic garden tradition.<sup>99</sup> The carpet garden might have found particular resonance, since the city was what Stronach calls "a magnet for the production of luxurious and expensive textiles", as well as a center of fervid antiquarianism.<sup>100</sup> But when a generation later, Cyrus the Great created the first sunken garden in an Achaemenid palace, his inspiration was more likely Assyrian, as it was for much of Achaemenid royal ideology and statecraft.<sup>101</sup> And so the rulers at Persepolis sat enthroned upon elaborate textiles, their carpet gardens laid before them.<sup>102</sup>

### Conclusions

In conclusion, we may ask what Berossus/Josephus may have meant by describing the second of Nebuchadnezzar's two gardens as a "so-called pensile paradise... because his wife, who came from Media, longed for such, which was the custom in her homeland".<sup>103</sup> Though, as we have seen, the gardens of Nineveh and Babylon antedate the earliest hanging ones in Persia, Berossus/Josephus would have assumed the opposite, given the strong Achaemenid influence on the garden designs of their own times. This was especially true of the *paradeisoi*, which ranged from literal renderings of "wall-enclosed" gardens to vast hunting parks to metaphors for Paradise itself.<sup>104</sup> As for the adjective, *kremastos*, which Berossus/Josephus qualify by *kaloumenos*, so-called, this may apply to anything that hangs down, or may describe a state of suspension without obvious means of support, an apt word for a carpet garden.<sup>105</sup>

When Latin authors translated the Greek sources for the Hanging Gardens, they used *pensilis* for *kremastos*, thereby narrowing its sense to denote only objects hanging down, as from weighing scales or a balcony.<sup>106</sup> The result was *horti pensiles*, not just the Hanging Gardens, but all Roman gardens of the type, which Seneca pronounced must have large trees planted on man-made substructures. In the Italian Renaissance, with almost no archaeological knowledge of the rich

<sup>94</sup> Given the nature of Assyrian perspective, it would be difficult to recognize such a garden in the reliefs. But I wonder if inner, courtyard gardens are meant by some of the trees depicted upon walls, which are usually taken as signs of that genre of hanging garden (Reade 2000: Fig. 4, 197–8). It may be instructive to compare these with more recent garden images, such as the sixteenth-century manuscript of the Sülemaniye mosque garden, showing trees and bushes seeming to sprout atop the enclosure wall (Necipoğlu 1997: Fig. 5).

<sup>95</sup> Reade 1979: 340, where he lists palace courtyards as one of the contexts for royal steles.

<sup>96</sup> Albenda 1974: 5–6, where she reminds us of the Assyrians' love of color, surely reflected in their gardens. Dalley 1993b: 11 suggests that flowers were painted directly on the smooth surfaces of the wall reliefs, from which they would long since have vanished.

<sup>97</sup> Stronach 1994b: 103–4; Stronach 1997.

<sup>98</sup> Dalley 1994: 56; Dalley 1993a; Reade 1998b, 2001a.

<sup>99</sup> Novak 2002: 445; Dalley 1994: 50–1. Their putative existence would contribute substantially to "Babylon's luster" (Van De Mieroop 2003: 269, where he protests Dalley's removal of the gardens from Babylon).

<sup>100</sup> Stronach 1993: 24; Beaulieu 1994; Weisberg 1998.

<sup>101</sup> Dandamayev 1997; Novak 2002: 453; Nylander 1979.

<sup>102</sup> Tilia 1978: sp. 45–53, Figs. 3, 4, 36–8; Stronach 2002.

<sup>103</sup> Finkel 1998: 42. Nagel 1979: 241 believes Berossus spoke of two gardens of similar design, but there seems no reason to combine the descriptions. On Nebuchadnezzar's supposed queen and the roles, legendary and otherwise, of Neo-Assyrian queens in garden and building projects, see Reade 2000: 199; Dalley 2002.

<sup>104</sup> Among numerous discussions, Reade 2000: 200–1; Dandamayev 1984: 113; Osborne 1992: 389–91.

<sup>105</sup> Pieper 1988; Dalley 1994: 45.

<sup>106</sup> Pieper 1988: 81; Koldewey 1914: 100.

variety of Roman gardens, landscapers developed the *giardino pensile*, following the rather rigid definition of Seneca and other Latin writers.<sup>107</sup> This conception has colored ever since our Western ideas about how gardens ought to hang, relegating the hanging carpet garden, the pride of kings, emperors, and caliphs, to relative obscurity.

We may also ponder what Arrian and Plutarch meant when they tell us that Alexander, dying of fever in Babylon, was taken to a *paradeisos* with a large pool, where he slept in what Arrian calls a *kamera* and Plutarch a *thalamos*.<sup>108</sup> While the latter is the conventional word for room or bedroom, *kamera* is unusual, denoting a vaulted space. Both writers omit *kremastos*, perhaps because they thought it implicit. Might the febrile Alexander have sought a cool oasis, sunk deep within vaulted walls, of a hanging garden and its waterworks? If so, such a Babylonian garden survived at least until 323 BC, or was reconstituted at some point prior to Alexander's death.

Finally, we may repeat a series of questions many have posed before us and suggest some responses. What made the Hanging Gardens such a wonder? How long did they survive? Who had access to these marvels? How should we best sift the welter of conflicting, conflating descriptions in the classical sources? Why was Herodotus silent about them? Were the gardens at Nineveh or Babylon? For the reasons I have put forward here, the gardens may have hung in quite a different manner than that usually imagined. Our inquiry into the development of sunken, hanging gardens has shown that numerous, wondrously suspended, royal carpet gardens were intimately connected with power and prestige. If they originated at Sennacherib's Nineveh, why should they not have inspired similar gardens, first at Babylon, then in the Achaemenid palaces, and down through the ages? Perhaps they had fallen into disrepair when Herodotus journeyed to Mesopotamia, or he, like the young Alexander, may not have been interested in gardens.<sup>109</sup> The classical confusion between Nineveh and Babylon, possibly initiated by Sennacherib himself,<sup>110</sup> may ultimately not matter, at least with respect to the gardens, for they may have been at both. In sum, I deem the Hanging Gardens a Wonder for their eloquent expression of royal ideology through a complex melding of horticultural and technological achievement with spatial and conceptual manipulation.

We cast a parting glance at Sennacherib's palace at Nineveh, filled with what he called "objects of astonishment". We know about some of them: striding bronze lions supporting lofty columns, impressive walls and gates, monolithic colossi, engineering marvels, rare materials, exotic flora and fauna, and the list goes on. Among all these wonders, there were remarkable gardens, and among them, perhaps none so extraordinary as the Hanging Gardens of Nineveh.

#### Works cited

Albenda, Pauline 1974. Grapevines in Ashurbanipal's Garden. *BASOR* 215: 5–17.

Albenda, Pauline 1976. Landscape Bas-Reliefs in the Bit-Hilāni of Ashurbanipal. *BASOR* 224: 49–72.

Albenda, Pauline 1977. Landscape Bas-Reliefs in the Bit-Hilāni of Ashurbanipal. *BASOR* 225: 29–48.

Albenda, Pauline 1978. Assyrian Carpets in Stone. *JANES* 10: 1–34.

Albenda, Pauline 1994. Assyrian Sacred Trees in the Brooklyn Museum. *Iraq* 54: 123–33.

Albenda, Pauline 1998. A Royal Eunuch in the Garden. *N.A.B.U.*, 88–9.

'Alwan, Kamil 1979. The Vaulted Structures or the So-called Hanging Gardens. *Sumer* 35: 136–1.

Andrae, Ernst Walter and Rainer Michael Boehmer 1992. *Sketches by an Excavator*. Berlin.

Andrae, Walter 1977. *Das wiederestandene Assur*. Munich (rev. ed.).

Bagg, Ariel 2000. *Assyrische Wasserbauten*. Mainz.

Barber, E. J. W. 1991. *Prehistoric Textiles: The Development of Cloth in the Neolithic and Bronze Ages*. Princeton.

Barnett, R. D. and M. Falkner 1962. *The Sculptures of Tiglath-Pileser III from the Central and South-West Palaces of Nimrud*. London.

Barrelet, Marie-Thérèse 1977. Un inventaire de Kar-Tukulti-Ninurta: Textiles décorés assyriens et autres. *RA* 71: 51–92.

<sup>107</sup> Harvey 1981: 20; Hunt 1986: 11–29. For the pioneering work on Roman gardens, see Jashemski 1979, with many subsequent studies published by herself and members of her project.

<sup>108</sup> Reade 2000: 214–15, with further discussion of other linguistic aspects of the classical sources 200–1.

<sup>109</sup> According to Plutarch, Alexander closely interrogated

the Persian ambassadors to his father's court on every subject save gardens (Reade 2000: 201), a story which seems emblematic of Greek lack of experience with pleasure gardens. It is also possible that Herodotus never visited the palace, where in my view a carpet garden would have been installed.

<sup>110</sup> Van De Mieroop, this volume.

Beach, Milo C. 1996. Forward. In James L. Wescoat and Joachim Wolschke-Bulmahn, *Mughal Gardens: Sources, Places, Representations, and Prospects*, 1–3. Washington, D.C.

Beaulieu, Paul-Alain 1994. Antiquarianism and the Concern for the Past in the Neo-Babylonian Period. *CSMS Bulletin* 28: 37–42.

Bedal, Leigh-Ann 1999. Petra: Lower Market Survey. *AJA* 103: 506–7.

Bedal, Leigh-Ann 2000. *The Petra Pool-Complex: A Hellenistic Paradeisos in the Nabataean Capital*. University of Pennsylvania dissertation.

Bier, Carol 1995. Textile Arts in Ancient Western Asia. In Jack M. Sasson *et al.*, eds., *Civilizations of the Ancient Near East*, 1567–88. New York.

Böhmer, H. and J. Thompson 1991. The Pazyryk Carpet: A Technical Discussion. *Source: Notes in the History of Art* 10:4: 30–6.

Bolens, Lucie 1981. *Agronomes andalous du Moyen-Âge*. Geneva.

Boucharlat, Rémy and Audran Labrousse 1979. Le palais d'Artaxerxes II sur la rive droite du Chaour à Suse. *Cahiers de la Délégation Archéologique Française en Iran* 10: 21–136.

Canby, J. V. 1971. Decorated Garments in Assurnasirpal's Sculpture. *Iraq* 33: 31–53.

Carroll, Maureen 2003. *Earthly Paradises: Ancient Gardens in History and Archaeology*. London.

Cohen, Mark E. 1993. *The Cultic Calendars of the Ancient Near East*. Bethesda, MD.

Cole, Steven W. 1997. The Destruction of Orchards in Assyrian Warfare. In S. Parpola and R. M. Whiting, eds., *Assyria* 1995, 29–40. Helsinki.

Dalley, Stephanie 1984. *Mari and Karana: Two Old Babylonian Cities*. London.

Dalley, Stephanie 1986. Ancient Mesopotamia. In Sir Geoffrey Jellicoe and Susan Jellicoe, eds., *The Oxford Companion to Gardens*, 368–70. Oxford.

Dalley, Stephanie 1991. Ancient Assyrian Textiles and the Origin of Carpet Design. *Iran* 29: 117–35.

Dalley, Stephanie 1993a. Nineveh after 612 BC. *AoF* 20: 134–47.

Dalley, Stephanie 1993b. Ancient Mesopotamian Gardens and the Identification of the Hanging Gardens of Babylon Resolved. *Garden History* 21: 1–13.

Dalley, Stephanie 1994. Nineveh, Babylon and the Hanging Gardens: Cuneiform and Classical Sources Reconciled. *Iraq* 56: 45–58.

Dalley, Stephanie 1996. Herodotus and Babylon. *OLZ* 91: 525–32.

Dalley, Stephanie, ed. 1998. *The Legacy of Mesopotamia*. Oxford.

Dalley, Stephanie 2001–2. Review of Bagg 2000. *OLZ* 48–9: 212–16.

Dalley, Stephanie 2002. More About the Hanging Gardens. In L. al-Gailani Werr *et al.*, eds., *Of Pots and Plans: Papers Presented to David Oates*, 67–73. London.

Dalley, Stephanie 2003. Why Did Herodotus not Mention the Hanging Gardens of Babylon? In Peter Derow and Robert Parker, eds., *Herodotus and His World*, 171–89. Oxford.

Damerji, Mu'ayyad S. 1981. Where are the Gardens of Babylon? *Sumer* 37: 56–61 (Arabic).

Dandamayev, Muhammad 1984. Royal *paradeisoi* in Babylonia. *Acta Iranica* 23: 113–17.

Dandamayev, Muhammad 1997. Assyrian Traditions during Achaemenid Times. In S. Parpola and R. M. Whiting, eds., *Assyria* 1995, 41–8. Helsinki.

Deller, Karlheinz 1987. Assurbanipal in der Gartenlaube. *BaghMitt* 18: 229–38.

Dickie, James 1976. The Islamic Garden in Spain. In E. B. MacDougall and Richard Ettinghausen, eds., *The Islamic Garden*, 89–105. Washington, D.C.

Dimand, M. S. 1979. Safavid Textiles and Rugs. In Richard Ettinghausen and Ehsan Yarshater, eds., *Highlights of Persian Art*, 273–311. Boulder.

Finkel, Irving L. 1988. The Hanging Gardens of Babylon. In Peter Clayton and Martin Price, eds., *The Seven Wonders of the Ancient World*, 38–58. London.

Foster, Karen Polinger 1998. Gardens of Eden: Exotic Flora and Fauna in the Ancient Near East. In Jeff Albert *et al.*, eds., *Transformations of Middle Eastern Natural Environments: Legacies and Lessons*, 320–9. New Haven.

Frahm, Eckart 2002. Sin-ahhē-eriba. In Heather D. Baker, ed., *The Prosopography of the Neo-Assyrian Empire* 3:1: 1113–27.

Frankfort, Henri 1952. The Origin of the Bit Hilani. *Iraq* 14: 120–31.

Gadd, C. J. 1936. *The Stones of Assyria*. London.

Gainza, M. C. G. 1985. *Catalogo Monumentale de Navarra III, Merindad de Olite*. Navarre.

Glassner, Jean-Jacques 2003. *La Tour de Babylone: Que reste-t-il de la Mésopotamie?* Paris.

Harvey, John 1981. *Mediaeval Gardens*. London.

Haynes, D. E. L. 1957. Philo of Byzantium and the Colossus of Rhodes. *JHS* 77: 311–12.

Hirsch, Ethel S. 1977. *Painted Decoration on the Floors of Bronze Age Structures on Crete and the Greek Mainland*. Göteborg.

Hirsch, Ethel S. 1980. Another Look at Minoan and Mycenaean Interrelationships in Floor Decoration. *AJA* 84: 453–62.

Hunt, John Dixon 1986. *Garden and Grove: The Italian Renaissance Garden in the English Imagination, 1600–1750*. London.

Ibáñez, Joaquina Egúaras 1988. *Ibn Luyūn: Tratado de Agricultura*. Granada.

Jashemski, Wilhelmina 1979. *The Gardens of Pompeii, Herculaneum, and the Villas Destroyed by Vesuvius*. New Rochelle, N.Y.

Jellicoe, Susan 1976. The Development of the Mughal Garden. In E. B. MacDougall and Richard Ettinghausen, eds., *The Islamic Garden*. Washington, D.C.

Koldewey, Robert 1914. *The Excavations at Babylon*, transl. Agnes S. Johns. London.

Koldewey, Robert 1931. *Die Königsburgen von Babylon*. Leipzig.

Kühnel, Ernst and Louisa Bellinger 1953. *Catalogue of Spanish Rugs 12th Century to 19th Century*. Washington, D.C.

Kuhr, Amélie 1982. Assyrian and Babylonian Traditions in Classical Authors: A Critical Synthesis. In Hans-Jörg Nissen and Johannes Renger, eds., *Mesopotamien und seine Nachbarn*, 539–53. Berlin.

Kuhr, Amélie 1995. Ancient Mesopotamia in Classical Greek and Hellenistic Thought. In Jack M. Sasson et al., eds., *Civilizations of the Ancient Near East*, 55–65. New York.

Leach, Helen M. 1982. On the Origins of Kitchen Gardening in the Ancient Near East. *Garden History* 10: 1–16.

Lehrman, J. 1980. *Earthly Paradise: Garden and Courtyard in Islam*. Berkeley.

Leisten, Thomas 1993. Gärten der islamischen Welt. In H. Forkl, ed., *Die Gärten des Islam*, 60–76. Stuttgart.

Lumsden, Stephen 2000. On Sennacherib's Nineveh. In Paolo Matthiae et al., eds., *Proceedings of the First International Congress on the Archaeology of the Ancient Near East*, 815–24. Rome.

Lundquist, John M. 1995. Babylon in European Thought. In Jack M. Sasson et al., eds., *Civilizations of the Ancient Near East*, 67–80. New York.

Maul, Stefan M. 1994. *Zukunftsbevältigung*. Mainz.

Mayer, Walter 1977. Mardatu "Teppich." *Ugarit-Forschungen* 9: 173–89.

McDonald, J. Andrew 2002. Botanical Determination of the Middle Eastern Tree of Life. *Economic Botany* 56: 113–29.

McGovern, Patrick E. 2003. *Ancient Wine: The Search for the Origins of Viniculture*. Princeton.

Meissner, B. 1974. Altorientalische Teppiche. *Orientalia* 16: 166–8.

Mellink, Machteld J. 1976. Excavations in the Elmali Area, Lycia, 1975. *AJA* 80: 377–84.

Müller, Karl 1937. *Das Assyrischen Ritual*. Leipzig.

Musche, Brigitte 1999. Assurbanipal Banqueting With His Queen? *N.A.B.U.*, 12–14.

Nagel, Wolfram 1979. Where were the "Hanging Gardens" located in Babylon? *Sumer* 35: 242–41.

Necipoglu, Gülrü 1997. The Suburban Landscape of Sixteenth-Century Istanbul as a Mirror of Classical Ottoman Garden Culture. In Attilio Petruccioli, ed., *Gardens in the Time of the Great Muslim Empires*, 32–71. Leiden.

Netzer, Ehud 1977. The Winter Palaces of the Judean Kings at Jericho at the End of the Second Temple Period. *BASOR* 228: 1–13.

Netzer, Ehud 1981. *Greater Herodium*. Jerusalem.

Nichols, R. S. 1924. *Spanish and Portuguese Gardens*. Boston.

Nielsen, Inge 1994. *Hellenistic Palaces: Tradition and Renewal*. Aarhus.

Novak, Mirko 2002. The Artificial Paradise: Programme and Ideology of Royal Gardens. In S. Parpola and R. M. Whiting, eds., *Sex and Gender in the Ancient Near East*, 443–60. Helsinki.

Nylander, Carl 1979. Achaemenid Imperial Art. In Mogens Trolle Larsen, ed., *Power and Propaganda: A Symposium on Ancient Empires*, 345–59. Copenhagen.

Oates, Joan and David Oates 2001. *Nimrud: An Assyrian Imperial City Revealed*. London.

Oppenheim, A. Leo 1949. The Golden Garments of the Gods. *JNES* 8: 172–93.

Oppenheim, A. Leo 1965. On Royal Gardens in Mesopotamia. *JNES* 24: 328–33.

Orgel, Stephen 1975. *The Illusion of Power: Political Theater in the English Renaissance*. Berkeley.

Orr, Stephen 2001. Flower Patterns. *House & Garden* 170:7: 25–8.

Osborne, Robin 1992. Classical Greek Gardens: Between Farm and Paradise. In John Dixon Hunt, ed., *Garden History: Issues, Approaches, Methods*, 373–91. Washington, D.C.

Paterson, Archibald 1912. *Assyrian Sculptures: Palace of Sennacherib*. The Hague.

Pieper, Jan 1988. Hanging Gardens in the Princely Capitals of Ragasthan and in Renaissance Italy: Sacred Space, Earthly Paradise, Secular Ritual. *Marg* 39: 70–90.

Pongratz-Leisten, Beate 1997. The Interplay of Military Strategy and Cultic Practice in Assyrian Politics. In S. Parpola and R. M. Whiting, eds., *Assyria 1995*, 245–52. Helsinki.

Postgate, Nicholas 1975. Excavations in Iraq 1973–74. *Iraq* 37: 57–67.

Purdum, Todd S. 2003. After 12 Years, Sweet Victory: The Bushes' Pursuit of Hussein. *The New York Times* 16 December: A1.

Reade, Julian 1972. The Neo-Assyrian Court and the Army: Evidence from the Sculptures. *Iraq* 34: 87–112.

Reade, Julian 1979. Ideology and Propaganda in Assyrian Art. In Mogens Trolle Larsen, ed., *Power and Propaganda: A Symposium on Ancient Empires*, 329–43. Copenhagen.

Reade, Julian 1980a. Space, Scale, and Significance in Assyrian Art. *BaghMitt* 11: 71–74.

Reade, Julian 1980b. Elam and Elamites in Assyrian Sculpture. *BaghMitt* 11: 97–106.

Reade, Julian 1998a. Assyrian Illustrations of Nineveh. *Iranica Antiqua* 33: 81–94.

Reade, Julian 1998b. Greco-Parthian Nineveh. *Iraq* 60: 65–83.

Reade, Julian 2000. Alexander the Great and the Hanging Gardens of Babylon. *Iraq* 62: 195–217.

Reade, Julian 2001a. Ninive (Nineveh). *RLA*: 388–433.

Reade, Julian 2001b. More About Adiabene. *Iraq* 63: 187–99.

Reiner, Erica 1991. First-Millennium Babylonian Literature. *CAH* 2 III:2: 293–321.

Riefstahl, Elizabeth 1944. *Patterned Textiles in Pharaonic Egypt*. Brooklyn.

Roaf, Michael 2000. Survivals and Revivals in the Art of Ancient Mesopotamia. In Paolo Matthiae *et al.*, eds., *Proceedings of the First International Congress on the Archaeology of the Ancient Near East*, 1447–59. Rome.

Romer, John and Elizabeth Romer 1995. *The Seven Wonders of the World: A History of the Modern Imagination*. New York.

Ross, Stephanie 1998. *What Gardens Mean*. Chicago.

Rubinson, Karen S. 1990. The Textiles from Pazyryk: A Study in the Transfer and Transformation of Artistic Motifs. *Expedition* 32: 49–61.

Rudenko, S. I. 1970. *Frozen Tombs of Siberia*. Berkeley.

Ruggles, D. Fairchild 1992. The Gardens of the Alhambra and the Concept of the Garden in Islamic Spain. In Jerilynn D. Dodds, ed., *Al-Andalus: The Art of Islamic Spain*, 163–71. New York.

Ruggles, D. Fairchild 1994. Vision and Power at the Qala Bani Hammad in Islamic North Africa. *Journal of Garden History* 14: 28–41.

Ruggles, D. Fairchild 2000. Madinat al-Zahrā' and the Umayyad Palace. In Maria Rosa Menocal *et al.*, eds., *The Literature of Al-Andalus*, 25–29. Cambridge.

Russell, John M. 1991. *Sennacherib's Palace Without Rival at Nineveh*. Chicago.

Salonen, Armas 1963. *Die Möbel des alten Mesopotamien*. Helsinki.

Schmidt-Colinet, Constanza 1997. Assurbanipal Banqueting With His Queen? *Mesopotamia* 32: 289–308.

Stevenson, D. W. W. 1992. A Proposal for the Irrigation of the Hanging Gardens of Babylon. *Iraq* 54: 35–55.

Stronach, David 1978. *Pasargadae: A Report on the Excavations Conducted by the British Institute of Persian Studies from 1961 to 1963*. Oxford.

Stronach, David 1993. Patterns of Prestige in the Pazyryk Carpet: Notes on the Representational Role of Textiles in the First Millennium B.C. *Oriental Carpet and Textile Studies* 4: 19–34.

Stronach, David 1994a. Parterres and Stone Watercourses at Pasargadae: Notes on the Achaemenid Contribution to Garden Design. *Journal of Garden History* 14: 3–12.

Stronach, David 1994b. Village to Metropolis: Nineveh and the Beginnings of Urbanism in Northern Mesopotamia. In S. Mazzoni, ed., *Nuove fondazioni nel Vicino Oriente antico: Realtà e ideologia*, 85–114. Pisa.

Stronach, David 1995. The Imagery of the Wine Bowl: Wine in Assyria in the Early First Millennium B.C. In Patrick E. McGovern *et al.*, eds., *The Origins and Ancient History of Wine*, 175–95. Luxembourg.

Stronach, David 1997. Notes on the Fall of Nineveh. In S. Parpola and R. M. Whiting, eds., *Assyria 1995*, 307–24. Helsinki.

Stronach, David 2002. Icons of Dominion: Review Scenes at Til Barsip and Persepolis. *Iranica Antiqua* 37: 373–402.

Tabbaa, Yasser 1992. The Medieval Islamic Garden: Typology and Hydraulics. In John Dixon Hunt, ed., *Garden History: Issues, Approaches, Methods*, 303–29. Washington, D.C.

Thacker, Christopher 1979. *The History of Gardens*. Berkeley.

Tilia, Ann Britt 1978. *Studies and Restorations at Persepolis and Other Sites of Fars II*. Rome.

Time-Life Books 1987. *A Soaring Spirit: TimeFrame 600–400 B.C.* Alexandria, VA.

Van De Mieroop, Marc 2003. Reading Babylon. *AJA* 107: 257–75.

Weisberg, David 1998. The “Antiquarian” Interests of the Neo-Babylonian Kings. In Joan G. Westenholz, ed., *Capital Cities*, 177–86. Jerusalem.

Welch, Anthony 1997. Gardens of the Islamic Period. In Eric M. Meyers, ed., *The Oxford Encyclopedia of Archaeology in the Near East*, 387–9. New York.

Wescoat, James L. and Joachim Wolschke-Balmahn, eds., 1996. *Mughal Gardens: Sources, Places, Representations, and Prospects*. Washington, D.C.

Wilber, D. N. 1979. *Persian Gardens and Garden Pavilions*. Washington, D.C.

Wilkinson, Alix 1998. *The Garden in Ancient Egypt*. London.

Winter, Irene J. 1982. Art as Evidence for Interaction: Relations Between the Assyrian Empire and North Syria. In Hans-Jörg Nissen and Johannes Renger, eds., *Mesopotamien und seine Nachbarn*, 355–82. Berlin.

Winter, Irene J. 2000. Babylonian Archaeologists of the(ir) Mesopotamian Past. In Paolo Matthiae *et al.*, eds., *Proceedings of the First International Congress on the Archaeology of the Ancient Near East*, 1785–98. Rome.

Wiseman, D. J. 1983. Mesopotamian Gardens. *AnatStud* 33: 137–44.

Wiseman, D. J. 1985. *Nebuchadrezzar and Babylon*. Oxford.