



Canolfan Sophia  
The Sophia Centre

## CULTURE AND COSMOS

*A Journal of the History of Astrology and Cultural Astronomy*

Vol. 8 no 1 and 2

Spring/Summer and Autumn/Winter 2004

Papers from the fourth conference on the Inspiration of  
Astronomical Phenomena (INSAP IV), Magdalen College, Oxford,  
3-9 August 2003.

Published by Culture and Cosmos  
and the Sophia Centre Press,  
in partnership with the University of Wales Trinity Saint David,  
in association with the Sophia Centre for the Study of Cosmology  
in Culture, University of Wales Trinity Saint David,  
Institute of Education and Humanities  
Lampeter, Ceredigion, Wales, SA48 7ED, UK  
[www.cultureandcosmos.org](http://www.cultureandcosmos.org)

Cite this paper as: Chapman-Rietschi, Anne, 'Cosmic Gardens', *Culture and Cosmos* 8, nos. 1 and 2, Spring/Summer and Autumn/Winter 2004, pp. 57–66.

British Library Cataloguing in Publication Data  
A catalogue card for this book is available from the British Library

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ISSN 1368-6534

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## Cosmic Gardens

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### Anne Chapman-Rietschi

**Abstract.** The article presents different gardens featuring cosmic principles or motifs. Among the examples: the first garden mentioned by the Sumerians; the biblical Garden of Eden; the astral-related gardens of the Ancient Egyptians; Plato's garden in Athens; and Tycho Brahe's Uraniborg on Hven. The motifs usually focus on planetary spheres and star-shaped designs. Allegorically, these, as well as other thematic astral elements of gardens, enabled the elite to ponder astral and religious mysteries.

A Sumerian clay tablet dating to the reign of Urukagina, around 4350 years ago, refers to a rather unusual garden that existed before the creation of celestial bodies, vegetation, and the human species.<sup>1</sup> The garden, as the Sumerians pointed out, came about in an embryonic universe consisting of heaven-earth and a limited number of chthonic deities. This garden, together with fields of dust, was in *Uru-ul-la*, the City of the Past. Water for the garden came from a hole in the earth. As J.J.A. van Dijk remarked, the water compares with the pre-Garden of Eden mist that watered untilled ground.

Other Sumerian notions of gardens point to the emergence of plants, marshes, and gardens, together with the rivers Tigris and Euphrates.<sup>2</sup> In Mesopotamian astral geography and science, the Euphrates and Tigris correspond to Pisces,<sup>3</sup> parts of which, in astrology, associate with Aries,

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<sup>1</sup> J.J.A. van Dijk, 'Le motif cosmique dans la pensée sumérienne', *Acta Orientalia* 28, 1964-65, pp. 39-44.

<sup>2</sup> W. Horowitz, *Mesopotamian Cosmic Geography* (Eisenbrauns: Winona Lake, 1998), p. 131.

<sup>3</sup> E. Weidner, 'Astrologische Geographie im Alten Orient', *Archiv für Orientforschung* 20, 1963, p. 118.

and the square of Pegasus.<sup>4</sup> The Euphrates and Tigris, in Genesis 2:10 and 2:14, are two of the four river heads that supply water to the Garden of Eden. The Pisces-Aries-Pegasus region evokes Mesopotamian <sup>mul</sup> IKU, which signifies a celestial field or water ditch. Phonetically, IKU is the equivalent of GAN, which brings to mind *Gan Eden*, the Hebrew Garden of Eden. Astrally and etymologically, such evidence prompted the late Arthur Ungnad to put up the scenario of the Garden of God as IKU, enclosed by the Tigris and Euphrates, or Pisces.<sup>5</sup>

In Egypt, on the zodiacs of Dendara, two fish (or Pisces) enclose the square of Pegasus, shown as a rectangular water basin.<sup>6</sup> As a cosmic symbol, rectangular outlines not only pertain to star chambers (*pr-twt*) in Egyptian temples, but also to water basins expressive of Nun, the mythological primeval ocean from which sun and life emerged.<sup>7</sup> The same water basin design, moreover, is the basis of fish and duck ponds at the centre point of the Egyptian garden.<sup>8</sup> Around these ponds thrived cultic plants, trees, flowers, and bushes associated with dawn, the Morning Star, and the sun.

A Persian fifteenth century miniature painting of the Herat school shows two Pisces-like fish in the Fountain of Life, al Kautahr, the water basin in the paradise garden where four rivers meet.<sup>9</sup> In the Islamic tradition, gardens consist of four equal-sized parts corresponding to the four directions of paradise.<sup>10</sup> The four equal parts form to make a cross. A well or fountain, placed in the centre of the garden, sometimes has the shape of the eight pointed star. As a symbol, the eight points usually denote the morning and evening planet Venus, which in astrology has its exaltation in the watery region Pisces, the Fishes.

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<sup>4</sup> E. Reiner, 'Astral Magic in Babylonia', *Transactions of the American Philosophical Society* 85, Part 4, 1995, p. 115, ft. 522.

<sup>5</sup> A. Ungnad, 'Die Paradiesbäume', *Zeitschrift der Morgenländischen Gesellschaft* 79, 1925, p. 115.

<sup>6</sup> F. Gössmann, *Planetarium Babylonicum oder die Sumerisch-Babylonischen Stern-Namen* (Roma: Scripta Pontificii Instituti Biblici, 1950), p. 76.

<sup>7</sup> *The Oxford Encyclopedia of Archaeology in the Near East*, Vol. 2, edited by Eric M. Meyers (New York and Oxford: Oxford University Press, 1997), p. 384.

<sup>8</sup> J.-C. Hugonot, 'Aegyptische Gärten', in M. Carroll-Spillecke, *Der Garten von der Antike bis zum Mittelalter: Kulturgeschichte der alten Welt*, Vol. 57 (Mainz: Verlag Philipp von Zabern, 1992), pp. 9, 21.

<sup>9</sup> L. Binyon, J.V.S. Wilkinson and B. Gray, *Persian Miniature Painting* (New York: Dover Publications, 1971), p. 95.

<sup>10</sup> *The Oxford Encyclopedia of Archaeology in the Near East*, Vol. 2, edited by Eric M. Meyers (New York and Oxford: Oxford University Press, 1997), p. 387.

Water plays a vital role in all Islamic gardens, for example in the Nishat Bagh, a Mogul garden in Kashmir, which Muhammad-Salih Kambo described as follows:

... that paradisaical garden is on the shores of Lake Dal, on uneven ground rising, like the layers of heaven, in nine levels higher than the nine celestial spheres and altogether higher and a thousand times better than paradise itself... On every level a waterchute and vast pool have been made for the canal, which flows through the exact middle of the garden...<sup>11</sup>

*'Amal-i Salih*

The nine spheres could be: Moon, Mercury, Venus, Sun, Mars, Jupiter, Saturn, the fixed stars, and the outermost sphere or Throne – the highest heaven.

Lake Dal also watered the garden owned by Prince Dara Shukoh. Designed and planted for the Prince's teacher, an astrologer, the garden contained seven terraces, alluding to the spheres of the Sun, Moon, and five planets.<sup>12</sup> In the Islamic sciences, these different types of astronomical and astrological objects relate to seven climates and ecology.

Cosmically-schemed gardens occurred too in ancient China. The funerary garden of the first Manchu emperor, situated northeast of Shenyang, for instance, housed a temple that has the name of a district in the northern sky. Other cosmological themes in this garden include a solar disk-like funerary mound on top of a lunar crescent layout.<sup>13</sup> The crescent is interesting because, according to the *Jin Shu*,<sup>14</sup> to the left and

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<sup>11</sup> W.M. Thackston, 'Mughal Gardens in Persian Poetry. Appendix: Muhammad-Salih Kambo', 'Amal-i Salih, or Shâhjahânâma', ed. G. Yazdani, Calcutta 1912-39, II, in *Mughal Gardens*, edited by J.L. Wescoat Jr. and J. Wolschke-Bulmahn, Dumbarton Oaks Colloquium on the History of Landscape Architecture XVI (Washington, DC: Dumbarton Oaks Research Library and Collection, 1996), pp. 250, 255.

<sup>12</sup> E.B. Moynihan, *Paradise as a Garden in Persia and Mughal India* (London: Scholar Press, 1980), p. 127.

<sup>13</sup> M. Beuchert, *Gärten Chinas* (Frankfurt a.M: Insel Verlag, 1998), p. 134.

<sup>14</sup> H.P. Yoke, *The Astronomical Chapters of The Chin Shu* (Paris and The Hague: Mouton & Co., 1966), p. 134.

right of the Moon there appeared a comet called Fuling – the name also of this seventeenth-century funerary garden.

Another cosmological image in Chinese gardens was, in earlier times, Sumeru, the Buddhistic mountain of the north. On its summit, according to one tradition, a celestial river falls before dividing into four streams flowing to the four cardinal points.<sup>15</sup>

In Japan, Sumeru goes under the name of Shumi. Images of Shumi stood in the seventh-century temple and palace gardens at Asuka and Tsukushi.<sup>16</sup> An upright stone in the middle of a pond symbolizes the sacred mountain, around which are seven or eight other stones expressive of a cosmology pertaining to mountains and seas. A celestial mountain occurs too in the late Karesansui dry landscape gardens designed by Zen Buddhist monks.

Cosmic gardens are prevalent not only in the far and near east, but also in the west, for example, Europe's first circular botanical garden planted at Padua in 1546. The circular shape is reminiscent of the circular garden of Aphrodite-Venus on Cythera – a garden layout mentioned in Francesco Colonna's *The Dream of Poliphilius*.<sup>17</sup> Astrally, Aphrodite-Venus goes together with the Moon and the planets Mercury and Jupiter, as well as with zodiacal Taurus, Virgo, Libra, and Pisces.

Padua's circular garden, according to Marco Guazzo,<sup>18</sup> correlates to all directions of the wind. The garden, situated between the Churches of Santa Giustina and Sant'Antonio, has four outer and twelve inner partial gardens. The inner gardens allude to the twelve months or to the signs of the zodiac; the outer gardens correspond to the four intercardinal points. In one eye-shot, all is symmetry, an interplay of circles, squares, triangles, and star-shaped designs.

Geometrically designed gardens interact with stellar and planetary light. Sir Thomas Browne,<sup>19</sup> who developed this theory, had the following celestial objects in mind: two stars in Ursa Major; stars upon the head of Taurus; Orion's Belt; the Triangle; a star in Centaurus; the

<sup>15</sup> M. & J. Stutley, *A Dictionary of Hinduism* (London and Henley: Routledge and Kegan Paul, 1977), p. 191.

<sup>16</sup> *Nihongi*, translated by W.G. Aston (London: George Allen & Unwin, 1956), pp. 144, 251.

<sup>17</sup> F. Colonna, 'Hypnerotomachia Poliphili', *Medioevo e Umanesimo* 38, 1980.

<sup>18</sup> M. Guazzo, *Historie di tutti i fatti degni di memoria* (Venice, 1546), fol. 373 recto.

<sup>19</sup> T. Browne, *The Garden of Cyrus* (London: Faber & Faber, 1964), pp. 192–3, 211.

Moon; the Sun in Cancer; as well as the planets Saturn, Jupiter, and Mercury. Sir Thomas' theory seems to pertain to astro-botanical lore ascribed to Hermes Trismegistus.

Astro-botany and Hermeticism converge at Villa Careggi, northwest of Florence, where Cosimo Pater Patriae studied Plato and discussed philosophy with Marsilio Ficino in the garden of the villa. Ficino's interests included Hermeticism, Orphism and Pythagoreanism. These interests, relating to cosmogonic and religious mysteries, connect to the fact that Ficino linked the garden to Apollo and Aphrodite. Further pointers to this are laurel, myrtle, and rose among the trees and plants in the garden. Laurel is sacred to Apollo, the guide of the Muses. Myrtle, as Ficino remarked, relates to the evening star, and rose to the morning star.<sup>20</sup> Myrtle and rose moreover go together with Erato, one of the nine Muses pertaining to the hypsoma of planet Venus-Aphrodite in Pisces.<sup>21</sup> Astrally, Erato is the companion of Arkas, who personified the Herdsman, a constellation near Ursa Major and Draco. Arkas' mother is Kallisto, the astral goddess of Ursa Major.<sup>22</sup> Draco, according to Boll, is the dragon of the Garden of the Hesperides, the region of origins.<sup>23</sup>

Character-wise, Kallisto is Artemis Kalliste, the beautiful looking one.<sup>24</sup> Kalliste is also the name of a district in the northwest of Athens, the area of Plato's Academy.<sup>25</sup> Plato, who founded the Academy in 386 BCE, held his lectures in the garden, which he dedicated to the Muses, the embodiments of cosmic harmony. Each Muse, according to Neo-Pythagorean astronomy, corresponds to a celestial sphere. The plants and trees in the garden included the Elm, Olive, and Plane.<sup>26</sup> The Plane often marks a spring and the Lernaean snake. The olive is sacred to Athena –

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<sup>20</sup> M. Ficino, *Three Books on Life*, translated by C.V. Kaske and J.R. Clark, *Medieval and Renaissance Texts and Studies* (Binghamton, NY: 1989), p. 205.

<sup>21</sup> P. Morel, *Le Parnasse astrologique*, La Villa Médicis, Vol. 3 (Rome : Academie de France à Rome, 1991), pp. 129–30, 139.

<sup>22</sup> A. Le Boeuffe, *Astronomie, Astrologie, Lexique Latin* (Paris : Picard, 1987), p. 79.

<sup>23</sup> F. Boll, *Sphaera* (Leipzig: Teubner, 1903), p. 103.

<sup>24</sup> W. Drexler, 'Kallisto', in *Ausführliches Lexikon der Griechischen und Römischen Mythologie*, Vol. 2.1, herausgegeben von W.H. Roscher (Leipzig : Teubner, 1890-1897), col. 931.

<sup>25</sup> W. Judeich, *Topographie von Athen*, Handbuch der Altertumswissenschaft, Part 3.2, Vol. 2 (München: C.H. Beck'sche Verlagsbuchhandlung, 1931), p. 412.

<sup>26</sup> F. Olck, 'Gartenbau', in *Paulys Real-Encyclopädie der Classischen Altertumswissenschaft*, Neue Bearbeitung, Vol. 7.1 (Stuttgart, 1910), col. 783.

the titular goddess of Aries. The elm, in astral mythology, pertains to a star that rises and sets together with the Herdsman or Arkas. Clearly, the language of this garden helped to elevate the mind to higher spheres.

Other inspirational components in gardens include Parnassos, the sacred mountain of the Muses. Though this is not always the case, for at Bosco Parrasio in Rome,<sup>27</sup> the entire garden corresponds to Parnassos. As part of the Arcadian Academy, known to have been nourished by the ideas and beliefs of Christina, Queen of Sweden,<sup>28</sup> the garden is three-tiered and has forest-like features. The tiers appear to be an echo of the three-partitioned cosmos or of star paths that go back to ancient Mesopotamian times.

The bottom tier at Bosco Parrasio, which had a seven-stepped ramp, bears the hallmarks of Pan: laurel, pine, and the seven-tubed syrinx. Astrally, Pan is the goat part of Capricorn that rises and sets with Auriga,<sup>29</sup> in which Pan manifests, too. The syrinx of Pan alludes to the seven celestial spheres, which, as Macrobius points out, are the seven-strings of the lyre.<sup>30</sup> Grabbing attention here is the fact that the lyre of Orpheus became Lyra, the constellation that rises with Capricorn.

On the next and middle tier there is a statue of the lyric poet Alcaeus<sup>31</sup> inside the cave or grotto, seemingly modeled after the Korykian Cave, the place of Pan, the Muses, and nymphs on Parnassos. Nymphs, as Pherecydes pointed out,<sup>32</sup> are the Hyades – a group of stars not far from Auriga, which rises and sets with Capricorn. Nymphs also play a role in hydromancy, revelation by water, vehicle of the oracle of Apollo.

The upper tier of the garden, the centre point of the Arcadian Academy, focused on recitation of poetry, which took place in the Greek-Roman styled amphitheatre. Twined together with this was the intention to set up statues of Apollo with a laurel wreath in his left hand, and

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<sup>27</sup> D. Predieri, *Bosco Parrasio: un Giardino per l'Arcadia* (Modena: Mucchi Editore, 1990), pp. 53, 73, 79.

<sup>28</sup> S. Akerman, *Queen Christina of Sweden and her Circle*, Brill's Studies in Intellectual History, Vol. 21 (Leiden: E.J. Brill, 1991), p. 260.

<sup>29</sup> F. Boll, C. Bezold, 'Antike Beobachtungen farbiger Sterne', *Abhandlungen der Königlich Bayerischen Akademie der Wissenschaften, philos. philol. und hist. Klasse* 30, 1916, p. 86.

<sup>30</sup> Macrobius, *Les Saturnales*, Vol 1, XIX, 15, traduction de Henri Bornecque, (Paris : Librairie Garnier Frères, 1937), p. 207.

<sup>31</sup> G. B. Colonna, 'Il Bosco Parrasio', *Capitolium* 13, 1938, p. 559.

<sup>32</sup> Hygin, *L'Astronomie*, Livre II, 21, texte établi et traduit par A. Le Boeuffle, (Paris : Société d'Édition "Les Belles Lettres", 1983), p. 61.

Pegasus on top of a fountain.<sup>33</sup> In astral science, Apollo's constellation is Lyra, the culmination of which occurs in Aquarius, which has its rising and setting at the same time as Pegasus. The square of Pegasus seems to be Pegasus' fountain, the mythological spring of the carrier of souls to celestial spheres.

Heading now to the seventeenth century designed cosmic garden at Twickenham in Britain. The garden, on land previously owned by Francis Bacon, was square with circles that seem to symbolize the pre-Copernician universe.<sup>34</sup> In the centre was a circle connoting the element or planet Earth, around which trees formed concentric circles as spheres. Three of birch represented Moon, Mercury, and Venus; two of Linden analogous to Sun and Mars; with the outer circle of fruit trees serving as Jupiter and the circle of Saturn beyond. Birch, according to Culpeper,<sup>35</sup> is a tree of Venus, a morning and evening planet seen not far from the Sun. Linden, as Hopfner notes, is a solstitial tree.<sup>36</sup>

There are other instances of seven-sphered garden designs; at Château-Neuf de Saint Germain-en-Laye near Paris, for example. Started in 1599 under Henry IV, the chateau's garden had seven terraces that led down to the Seine.<sup>37</sup> A castle with royal apartments as well as Chapels of the King and Queen stood on the uppermost terrace. The seven terraces compare with Mesopotamian seven-stepped temple towers called ziggurats. The topmost level of this type of ziggurat had a chamber for sacred marriage ceremonies.<sup>38</sup> In later times, at Uruk, Nippur, and Babylon – places famed for gardens – ziggurats served as astronomical observatories.

The pairing of astronomical observatories with cosmologically laid out gardens evokes Uraniborg on the island of Hven, Denmark. Uraniborg, 'the Castle of the Heavens', belonged to Tycho Brahe, whose picture of the universe is based on a mixture of Ptolemy and Copernicus. The garden, planted on the highest spot of the island, was exactly north-south,

<sup>33</sup> See D. Predieri, *Bosco Parrasio*, pp. 53, 73, 79.

<sup>34</sup> R. Strong, *The Renaissance Garden in England* (London: Thames & Hudson, 1979), pp. 120–22.

<sup>35</sup> N. Culpeper, *Culpeper's Complete Herbal* (London: R. Evans, 1814), p. 34.

<sup>36</sup> T. Hopfner, *Griechisch-Aegyptischer Offenbarungszauber* (Leipzig: H. Haessel-Verlag, 1921), p. 117.

<sup>37</sup> L. de la Tourrasse, 'Le Château-Neuf de Saint-Germain-en-Laye, ses terrasses et ses grottes', *Gazette des Beaux-Arts* 66, 1924, pp. 68–78.

<sup>38</sup> J. Black and A. Green, *Gods, Demons and Symbols of Ancient Mesopotamia* (London: British Museum Press, 1992), p. 187.



so that the four corners of the garden pointed to the four cardinal directions.<sup>39</sup> The layout, which reveals a tetrad, expresses harmony, as well as Urania, the Muse of Astronomy in the fixed star sphere.<sup>40</sup>

At this point, the level of the fixed stars and in the seventeenth century, I close my paper.

#### **Acknowledgement**

I especially thank P. Chapman-Rietschi for having helped me to shape the text of my paper, and for having offered astral science insights. I also extend thanks to Carla Maccheroni, of the Accademia dell'Arcadia in Rome, and to the Universities of Basel and Freiburg im Breisgau for their valuable assistance.

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<sup>39</sup> V. E. Thoren, *The Lord of Uraniborg* (Cambridge: Cambridge University Press, 1990), pp. 108–12.

<sup>40</sup> T. Stanley, *The History of Philosophy*, 2<sup>nd</sup> edn (London: T. Bassett, D. Neuman, and T. Cookerill, 1687), p. 527.



