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## ABSTRACT

### The Origins of Terraced Temples in Egypt

Felix Arnold

Some scholars have suggested that the design of Hellenistic terraced sanctuaries was based on Egyptian prototypes. On the basis of several new observations on Egyptian architecture, the paper proposes to re-frame the question in a new context. Recent studies on changes in the ancient landscape indicates, for example, that the valley temples of the Old Kingdom did not stand next to harbor basins, but on terraces within garden enclosures. They therefore could be regarded as precursors to the terraced temples of the Middle and New Kingdoms at Deir el-Bahari. This tradition appears to have been revived in the Late Period temples at Sakkara, including the temple of Imhotep/Asklepios. This building may be the »missing link« between Egyptian and Hellenistic architecture: both the temple of Imhotep at Sakkara and the sanctuary of Asklepios at Kos were embellished by Ptolemy II. The paper suggests new perspectives on Egyptian-Hellenistic cultural contacts.

## KEYWORDS

Hellenistic architecture, Egyptian temple architecture, cultural contacts, Praeneste, Imhotep/Asklepios, Kos

# The Origins of Terraced Temples in Egypt

1 One of the most iconic ensembles of Hellenistic architecture is the Sanctuary of Fortuna Primigenia at Palestrina, ancient Praeneste in Latium (Italy)<sup>1</sup>. It was built on the steep slope of a hill overlooking the city to the south, at a site where a famous oracle was located. The sanctuary comprised a total of eight terraces, with a combined difference in height of 90 m (Fig. 1)<sup>2</sup>. At the bottom, separating the sanctuary from the city and its forum, three terraces rose. At each end, two staircases led to a fourth terrace, with columned halls at the top of each staircase. From here, two long ramps placed head-to-head led to the next level, the fifth terrace. The resulting triangle in the façade, nearly 150 m wide and 18.5 m high, is one of the most monumental features of the ensemble. The ramps were flanked by 70-m-long colonnaded halls, so that the view of the city and the landscape beyond only opened up at the top. On this terrace, a well cut into the rock was found, possibly the site of the famous oracle. It was covered by a monopteros, which stood next to a statue of Fortuna.

2 Another wide staircase led up further, now along the central axis. It first passed a rather narrow terrace with a façade that was elaborately designed as a colonnade with two exedras (the so called *terrazza degli emicicli*), before reaching a terrace with a front composed of a row of ten exedras. Above, at the top of the staircase, lay a 46 m wide and 110 m deep plaza (the *piazza della cortina*), enclosed on three sides by columned halls, leaving the fourth side open. At the back of the square, a staircase gave access to a podium that formed the base of a *cavea*. This in turn was surmounted by a semicircular columned hall, essentially an eighth terrace. Behind the portico was a relatively small circular building that was the focal point of the entire complex. Some researchers have reconstructed it with a domed roof, others as a two-story tower<sup>3</sup>. The

1 This paper was presented as a guest lecture at the German Archaeological Institute in Cairo on March 14, 2023. I thank Dietrich Raue for the invitation, Alexander Hoer and Thomas G. Schattner for their comments.

2 Fasolo – Gullini 1953; Mingazzini 1954; Kähler 1958; Lauter 1979; Zevi 1979; Merz 2001, 18–21; Calìo 2003; Gatti 2004; Demma 2011; D'Alessio 2016; Gatti 2017.

3 Cf. Rakob 1990.

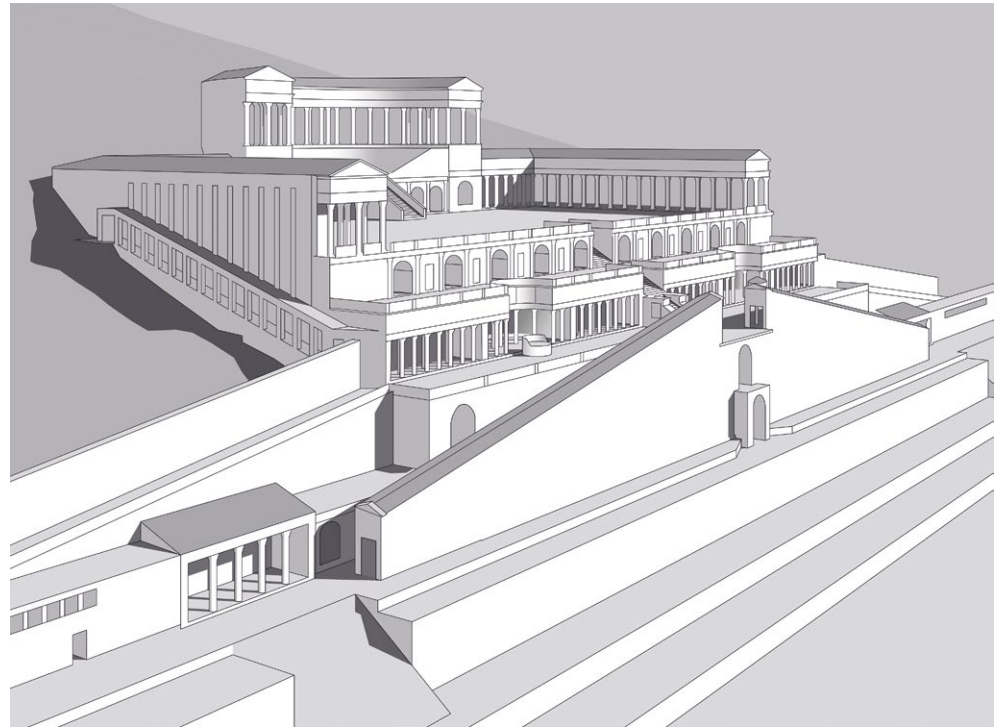


Fig. 1: Latium, Italy. The sanctuary of Fortuna Primigenia (ca. 120–110 B.C.E.). Drawing based on the model in the Museo Nazionale Archeologico Prenestino

1

ascent to the sanctuary offered an impressive experience of different architectural settings, similar to the theatrical sceneries of the illusionistic wall paintings in [Pompeii](#)<sup>4</sup>.

<sup>3</sup> The sanctuary was built around 120–110 B.C.E. by the senate of the Praeneste<sup>5</sup>. Research has shown that the building was the most elaborate example of a series of terraced sanctuaries in the Latium region dating to the mid-2<sup>nd</sup> and early 1<sup>st</sup> century B.C.E.<sup>6</sup>, all of which were strongly influenced by developments in Hellenistic architecture<sup>7</sup>. Many of these sanctuaries consisted of a terrace surrounded on three sides by a portico, with a podium temple in the center and a *cavea* in front, which was apparently used to stage theatrical performances. The sanctuary of Fortuna Primigenia at Praeneste goes well beyond such standard designs and includes several unique features, such as the absence of a podium temple and the placement of the *cavea* at the rear, with a semicircular portico on top and an additional circular building. Some of these features can be traced to Hellenistic antecedents. However, Luigi Crema, Heinz Kähler and others have noted that the overall composition of the sanctuary of Fortuna at Praeneste, especially the dominant role of the axis of symmetry, has no precedent in Hellenistic architecture<sup>8</sup>. Some have therefore tried to identify external influences, including from Egypt and Persia. Most recently, Jörg Martin Merz and Wolfgang Filser elaborated on the idea that the terraced temples at Deir el-Bahari in Egypt may have

4 Kähler 1958, 197–207.

5 Degrassi 1969/1970. See the discussion in Meyboom 1995, 9–11.

6 Sanctuaries in Calgari, Campochiaro, Cori, Fregellae, Gabii, Monterinaldo, Nemi, Pietrabbondante, Pietravairano, Sulmona, Teanum, Terracina and Tivoli have been mentioned as examples. Coarelli 1987; Gros 1996, 136–140; Merz 2001, 21–24; Ceccarelli 2011; Coarelli 2017. In some cases, the identification as terraced structures needs further investigation, and a more precise typological definition. The sanctuary at Borgo may have a predecessor of the 3<sup>rd</sup> century B.C. Demma 2011; Gatti 2004.

7 On the differentiation of levels and terraces as a design principle in Hellenistic architecture see Lauter 1986, 298 f.

8 Crema 1973, 652; Kähler 1958, 218.

served as a source of inspiration<sup>9</sup>. This suggestion seems problematic given the great distance, not only in region and cultural tradition, but also in time: the temples at Deir el-Bahari were built between 2050 and 1425 B.C.E., more than 1,275 years before those at Praeneste. Recent discoveries in Egypt may help bridge this gap, however, and the topic is worth reconsidering. To do so, we must go back even further in time, to the Old Kingdom (2700–2200 B.C.E.).

## The Valley Temples at Abusir and Sakkara

<sup>4</sup> Our image of Old Kingdom pyramid complexes has been largely shaped by the work of the architect and Egyptologist Ludwig Borchardt at the royal necropolis of Abusir<sup>10</sup>. In the publication of his excavation results Borchardt described the typical pyramid complex as consisting of a valley temple (*Torbau im Tale*), a causeway (*Aufgang*), a pyramid temple consisting of a ›public‹ and an ›intimate‹ part (›*Öffentlicher*‹ and ›*Intimer*‹ *Tempel*), and a pyramid. He envisioned the valley temple as a gate building standing at the edge of water. Ramps he found leading up to the valley temple were interpreted by him as landing stages for boats approaching the temple<sup>11</sup>. This interpretation was shaped by his personal experience with the inundation of the Nile when he first came to Egypt in 1895, before the first dam was built at Aswan, beginning in 1899. Each summer the Nile flooded most of the agricultural land of the Nile Valley, up to the remains of the valley temples that Borchardt would later excavate at the pyramids of Abusir. This image of a valley temple serving as a landing stage has become deeply ingrained in our understanding of the layout of pyramid complexes and has influenced most of the subsequent publications on the subject<sup>12</sup>.

<sup>5</sup> Recently, however, doubts have been raised about the relationship of the valley temples to water<sup>13</sup>. Studies of how the landscape of the Nile Valley has changed over time provide new data on the environmental setting of the pyramid complexes. At Giza, Mark Lehner has shown that the level of the Nile was much lower in the Old Kingdom than it is today<sup>14</sup>. According to his studies in the area east of the royal necropolis, the base of the riverbed was 3 to 5 m above sea level, the bottom of the artificial water basins was 4 to 7 m, the lowest level of the Nile was about 7 m, and the peak flood level reached a maximum of 13.5 or 14 m above sea level<sup>15</sup>. All settlement remains lie above this high water mark, river settlements at about 14.8 m, low desert settlements at 15 to 16 m. The valley temple of Khufu (2620–2580 B.C.E.) was located at 14.5 m, the valley temple of Khafra (2570–2530 B.C.E.) at 17 m, and the Valley Temple of Menkaura (2530–2510 B.C.E.) at about 16.3 m. Mark Lehner has explored several water basins associated with these buildings. At the lower end of the causeway of Queen Khentkaues, he found the edge of a basin at 16.4 m and the bottom at 12 m<sup>16</sup>. This basin may have actually been filled with Nile water for at least part of the year, confirming Borchardt's hypothesis.

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<sup>9</sup> Merz 2001, 25; Filser 2013. This suggestion had been voiced already by Fancelli 1974, 25; Picard 1978, 75; Ganzert 1996, 255.

<sup>10</sup> Borchardt 1907; Borchardt 1910.

<sup>11</sup> Borchardt 1905, 9; Borchardt 1907, 10. For comparison he refers to supposed quay constructions in front of the temples of the New Kingdom, which have since been shown to be platforms for cult activities, not landing stages, Jaritz 2005, 341 f.

<sup>12</sup> Cf. Jeffreys – Tavares 1994; Klemm et al. 1998.

<sup>13</sup> Casey 1999, 25; Jeffreys 2001; Jeffreys 2008; Arnold in print. Borchardt himself had already noted some doubts in his description of the valley temple of the sun temple at Abu Gorab, which stood inside an enclosed town, not a harbor basin. Borchardt 1905, 9. In this case he suggested a canal leading to the valley temple.

<sup>14</sup> Lehner 2014; Lehner 2020.

<sup>15</sup> Cf. Seidlmayer 2001, 47 f.

<sup>16</sup> Lehner 2011.

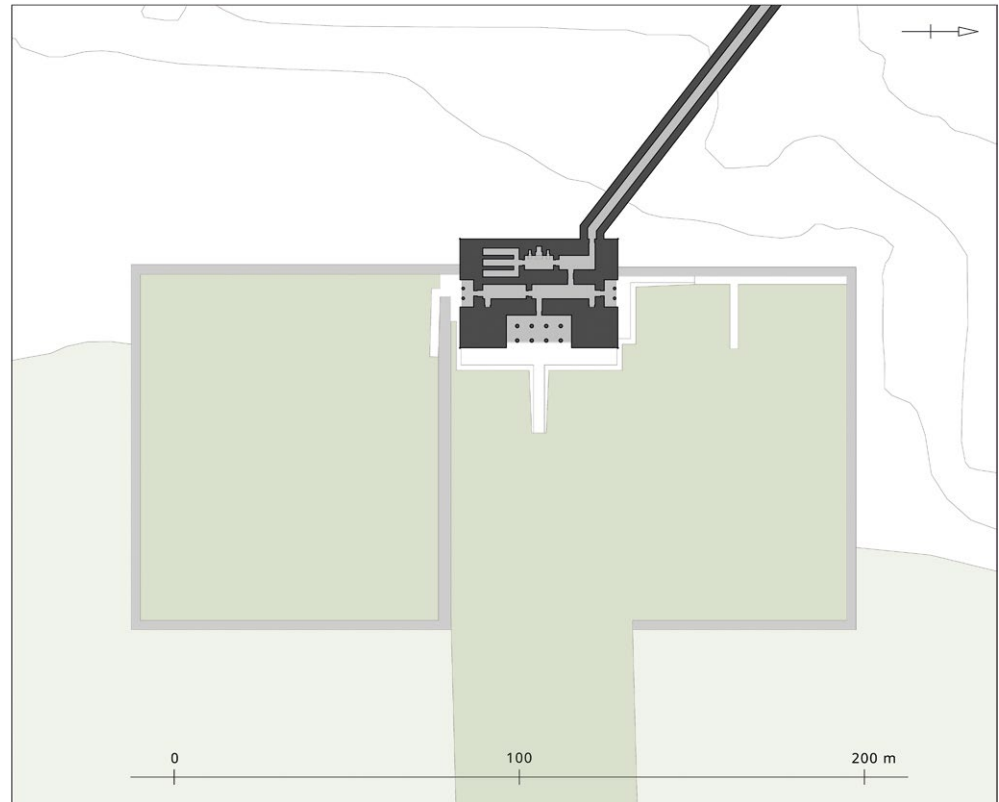


Fig. 2: Sakkara, Egypt. The valley temple of king Unas (2380–2350 B.C.E.). Ground plan with enclosure

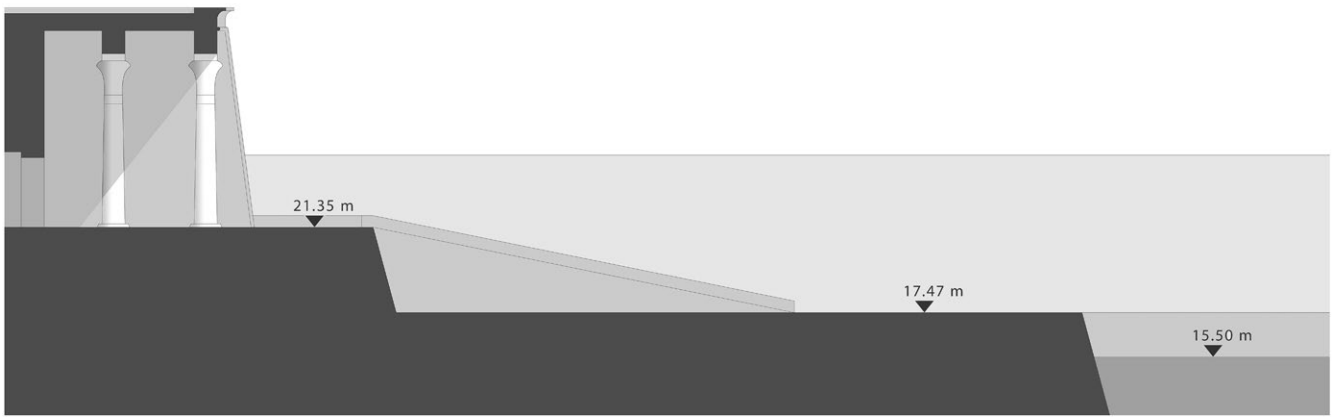
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6 The situation is different for the pyramid complexes of the 5<sup>th</sup> and 6<sup>th</sup> Dynasties located further south. One example is the valley temple of King Unas (2380–2350 B.C.E.) at Sakkara, which has been studied by Ahmed Moussa and Audran Labrousse<sup>17</sup>. The valley temple was built on a platform, the floor of which is 21.35 m above sea level (Fig. 2. 3. 4). The temple is located in an enclosure measuring 90 m × 115.26 m, surrounded by a 2.6 m thick and 6.3 m high wall built of limestone blocks. Following the hypothesis of Borchardt, this enclosure has been interpreted as a harbor basin. Three 1.6–3.1 m wide ramps lead from the valley temple down to the floor of the enclosure. These ramps have been seen as landing stages, although ramps of this kind are not a regular feature of harbor installations and would not have functioned well for boats such as that of King Khufu, which is 43.5 m long and 5.9 m wide. The floor of the enclosed area is 17.47 m above sea level and thus at least 1.5 m above the maximum flood level. It could never have filled naturally with Nile water. A water basin would have had to be cut into the floor of the enclosure, at least 5.5 m further, down to a level of 12 m, as at Giza.

7 Recent discoveries at Dahshur suggest that the enclosure may instead have functioned as a garden area. Next to the valley temple of the Bent Pyramid of King Snofru (2670–2620 B.C.E.), located 30 m above sea level at Dahshur, a large garden enclosure was found, with several rows of trees planted along the edges, including palms, sycamores, and cypresses imported from the Levant<sup>18</sup>. Thus, the temple of King Unas would not have stood on the edge of a water basin but would have risen 4 m above the level of a garden, on an artificial terrace. The ramps would not have served as landing stages but led from the garden level up to the terrace on which the temple stood. Palm-shaped columns in the façade reflected real palms planted in the garden below (Fig. 4).

17 Labrousse – Moussa 1996.

18 Arnold 2021.



3



4

8 At Abusir, Borchartd had excavated both the valley temple of King Sahure (2490–2475 B.C.E.) and that of King Nyuserre (2455–2420 B.C.E.)<sup>19</sup>. Ongoing work by Jaromír Krejčí on the latter will certainly provide more information about the surrounding area<sup>20</sup>. The available data indicates that the situation was similar to that of the Valley Temple of King Unas. Both temples stood in areas enclosed by stone walls, with ramps leading down from the valley temple. The exact height of the valley temples at Abusir has not been published, but according to topographical data the temples stood about 20 to 22 m above sea level. Again, the use of the enclosures as port basins seems unlikely.

9 The valley temple of Pepi II (2245–2180 B.C.E.) at Sakkara-South, the last great king of the Old Kingdom, was excavated by Gustave Jéquier and Jean-Philipp Lauer in 1926–1939 (Fig. 5)<sup>21</sup>. The main temple building, consisting of several pillared halls and magazines, was located in the center of a huge, 118 m wide terrace. Ramps lead from both ends to the 6.8 m high terrace. Side wings of the building complex contained additional covered staircases. The valley temple is located in the desert, far above the agricultural area, about 28 m above sea level, 6 m higher than that of King Unas. The water of the Nile would never have reached the building. Whether there was a garden in front of the temple, as now seems likely, could easily be verified in the future by a geophysical survey.

Fig. 3: Sakkara, Egypt. The valley temple of king Unas (2380–2350 B.C.E.). Reconstructed section, with suggested basin reaching down to the water table

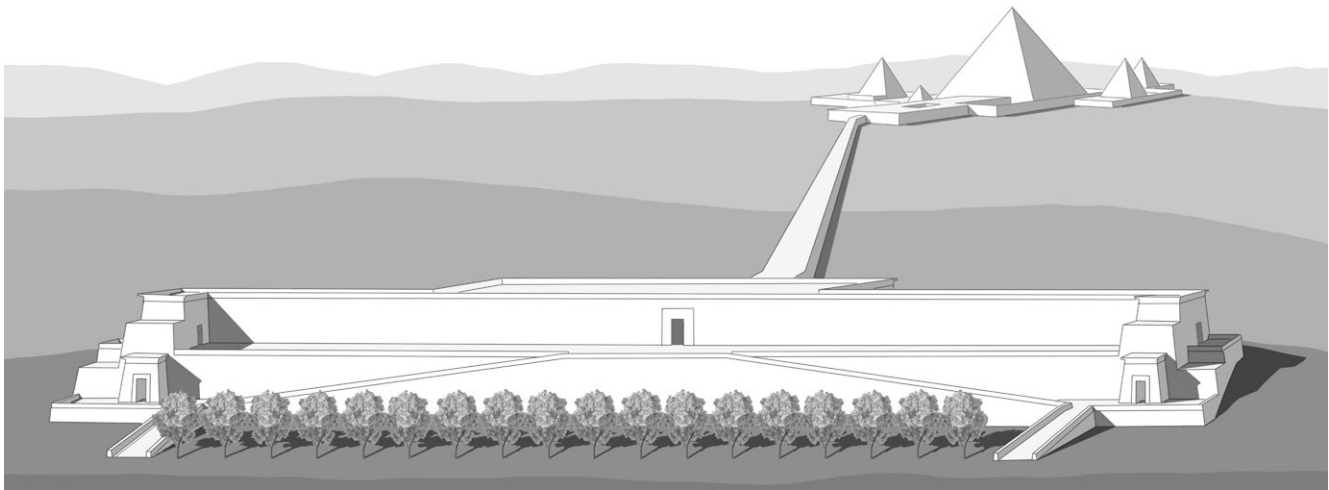
Fig. 4: Sakkara, Egypt. The valley temple of king Unas (2380–2350 B.C.E.). Reconstructed façade with trees planted in front

19 Borchartd 1910, 7–11 and 31–39; Borchartd 1907, 10–12 and 34–42.

20 See Krejčí 2021 for a preliminary report.

21 Jéquier 1940, 1–8 fig. 5 pls. 10–11.





5

Fig. 5: Sakkara, Egypt. The valley temple of Pepi II (2245–2180 B.C.E.). Reconstruction

## The Terraced Temples at Deir el-Bahari

10 The revised picture of the valley temples of the Old Kingdom, not as harbor buildings but as temples standing on elevated platforms within gardens, reveals their resemblance to the temple that Mentuhotep II (2061–2100 B.C.E.) built some 120 years after the death of Pepi II at Deir el-Bahari, on the west bank of Thebes<sup>22</sup>. The temple stands on a terrace 5 m high and 60 m wide, located at the far end of a desert valley (Fig. 6). The temple encompasses two courtyards at the rear, with a chapel of the god Amun and access to the underground tomb of the king, as well as a massive square building surrounded by an ambulatory at the front. A long ramp leads down along the central axis to an open forecourt of a dimension not known from earlier periods. A grove of 58 tamarisks was planted on either side of the ramp<sup>23</sup>. In addition, two rows of 13 sycamore trees formed an aisle to the east, with an Osirid royal statue placed in front of each tree.

11 The arrangement of a temple on a high platform with a ramp leading up to the temple terrace along the central axis resembles the design of the valley temples of the Old Kingdom, and the temple of Mentuhotep II may have been inspired by them in some way. However, Mentuhotep II clearly did not copy this prototype directly: his temple does not stand at the beginning but at the end of a causeway, and in fact an actual valley temple is likely to have stood at the lower end of his causeway. Maybe even more importantly, however, the design of the temple of Mentuhotep II is part of a wider trend in architecture, found also in private tombs, provincial temples and even houses of this period. The façade of the two temple terraces of Mentuhotep was furnished with colonnades of square and octagonal pillars. Such colonnades were a common feature at the time in private tombs, including those of his direct ancestors<sup>24</sup>, but is also found in contemporary houses and in the temple of Satet at Elephantine<sup>25</sup>. The wooden model of a house from the tomb of Meketra exemplifies the combination of portico and garden<sup>26</sup>. Placing two such porticos one above the other in a two-story building appears to have been a common feature in domestic architecture of this period, as models made of pottery show<sup>27</sup>. And even ramps were used elsewhere. Most impressive are the ramps

22 Arnold 1974; Arnold 1979; Arnold 2022, 42–46.

23 Arnold 1979, 21–24; Haase 2011, 188–191 figs. 242–247.

24 Arnold 1975, 165–169.

25 Kaiser 1993; von Pilgrim 1996; Arnold 2019, 5 f.

26 Winlock 1955, 17–19 pls. 9–12. 56–57.

27 Petrie 1907; Arnold 1975, 170.

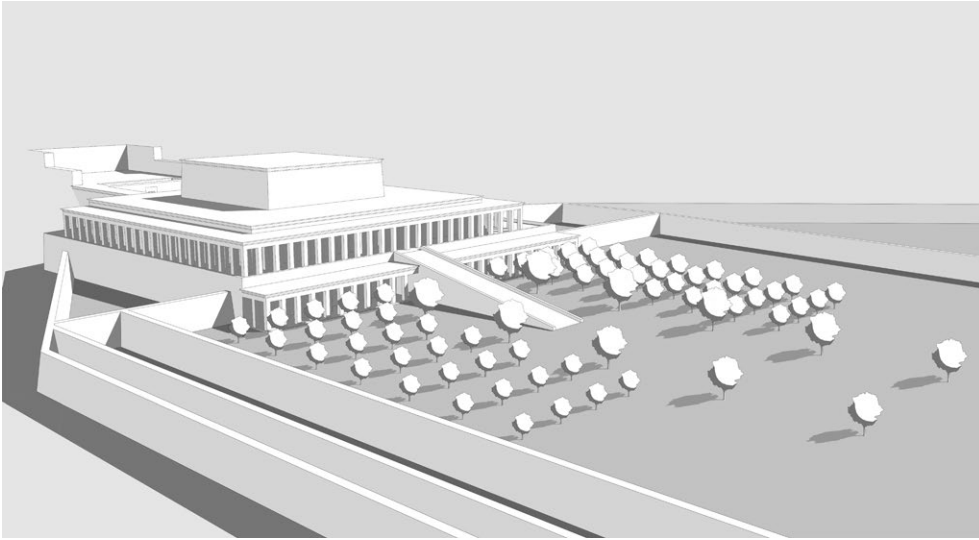


Fig. 6: The temple of Mentuhotep II at Deir el-Bahari, Egypt (2061–2010 B.C.E.). Reconstruction

6

in the tombs of Ibu, Wahka I, and Wahka II at Qaw el-Kabir<sup>28</sup>. The tombs comprise a gate building, a causeway, a pylon and a colonnaded courtyard on a lower level, and a portico, a columned hall and a rock-cut statue chapel on an upper level. A ramp rose from the middle of the columned lower courtyard to the portico on the upper level. In many ways, the temple of Mentuhotep II is an innovative building, within the context of contemporary house, tomb and temple architecture. The valley temples of the Old Kingdom are just a precursor to this broad trend in architecture<sup>29</sup>.

12 There is one aspect, however, that does provide a more direct link between the valley temples of the Old Kingdom and the temple of Mentuhotep II at Deir el-Bahari, and that is the goddess Hathor. Our understanding of the concepts involved remains sketchy, but both the valley temples of the Old Kingdom and the temple of Mentuhotep II share a close association with Hathor. In the Old Kingdom, the connection between the valley temple and Hathor is well documented. Hathor is mentioned in an inscription at the entrance to the valley temple of Khafra<sup>30</sup>. A large number of statues of Hathor were found in the valley temple of King Menkaura, mostly in the form of a trias together with the king and the personification of a nome<sup>31</sup>. The valley temples were also associated with the *mr.t*, a separate ritual complex dedicated to Hathor<sup>32</sup>. The evidence from Dahshur mentioned above suggests that a *mr.t* was a garden with a cult building at its center, used for rituals performed during the lifetime of a king<sup>33</sup>. The *mr.t* seems to have been a place of ritual rejuvenation of the king, possibly combining a seasonal festival with a *hierogamos* ›sacred marriage‹ in which the queen took the role of Hathor<sup>34</sup>.

13 Hathor played a crucial role in the temple of Mentuhotep II, where she is depicted repeatedly, with female members of the court acting as priests of Hathor<sup>35</sup>. In the *ḥb nfr n jnt* ›Beautiful Festival of the Valley‹ the cult statue of Amun was brought each year from its sanctuary in Karnak on the east bank of the Nile to visit the goddess Hathor at Deir el-Bahari on the west bank. The festival was linked to the myth of the

28 Steckeweh 1936; Arnold 1975, 168 f.

29 Cf. Arnold 2022, 44.

30 Hölscher 1912, 17 figs. 7–8.

31 Friedman 2011a; Friedman 2011b.

32 Bárta 1983; Konrad 2006, 154–176.

33 Arnold 2021, 55 f.; Arnold in print.

34 Bárta 1983. In this context, the elevated position of the valley temple in relation to the garden might be interpreted in terms of being a primordial hill, the first land that rose from the primordial waters of Nun.

35 Arnold 1974, 83 f.

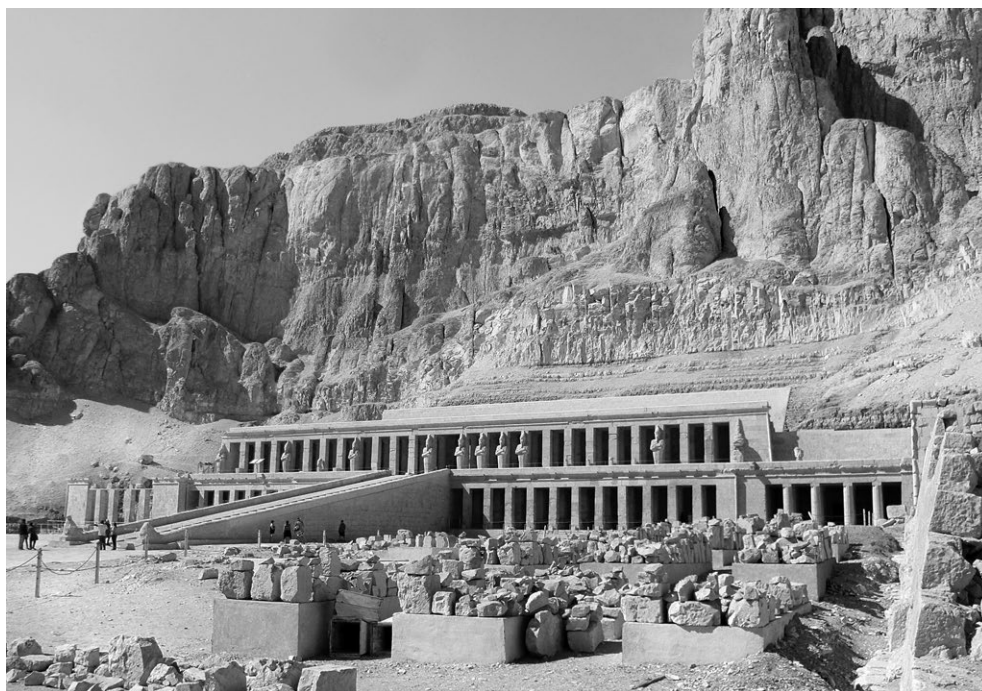


Fig. 7: Deir el-Bahari, Egypt. The temple of Hatshepsut (1479–1458 B.C.E)

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Eye of Ra, in which Hathor had been ordered by the sun-god Ra to destroy mankind, but when the god repented, he made her drink beer instead of blood, thus keeping her from executing his orders. The myth was reenacted by the populace of Thebes in the necropolis on the west bank, to celebrate the inundation of the Nile, in a night of drunkenness and song. Mentuhotep II apparently capitalized on this popular feast by placing his own temple at its destination, thus promoting his own legitimacy for reuniting Egypt under his sole rule.

<sup>14</sup> His temple at Deir el-Bahari thus became the stage of a popular feast, an aspect which helps to explain the design and size of its front courtyard. The connection to Hathor could also explain why he may have turned to the valley temples of the Old Kingdom for inspiration, these also having served in festivals related to Hathor. One difference may have been the amount of people involved. In the Old Kingdom, the elevated position of the valley temples was meant to enhance the power of the king symbolically, within an enclosure probably restricted to attending priests. In the temple of Mentuhotep II, the terraces became the stage of a very public event, with large parts of the population of Thebes attending and celebrating the event with feasting.

<sup>15</sup> The innovative architectural design of the temple of Mentuhotep II was revived in the New Kingdom by another ruler intent on capitalizing on the popularity of the Beautiful Festival of the Valley: Queen Hatshepsut (1479–1458 B.C.E.). She built a huge temple at Deir el-Bahari right next to that of Mentuhotep II (Fig. 7)<sup>36</sup>. Her temple was modeled after the earlier temple, but developed the concept of the terraced temple further. Her temple consists of three terraces instead of two, connected via long ramps placed along a central axis. Again, the remains of a garden have been found on both sides of the lowest ramp, although on a much smaller scale<sup>37</sup>. The uppermost terrace comprises a single wide courtyard with a rock sanctuary of Amun at the rear, continuing the central axis. A sanctuary of Hathor was prominently incorporated into the royal complex, possibly replacing an existing Middle Kingdom structure<sup>38</sup>. The type of

<sup>36</sup> Iwaszczuk 2017, 49–136, with further bibliography.

<sup>37</sup> Haase 2011, 192 f. figs. 249–252.

<sup>38</sup> Arnold 1974, 83.



Fig. 8: Medinet Habu, Egypt. The temple of Amenhotep, son of Hapu (1388–1351 B.C.E.). Reconstruction by Clément Robichon

8

architecture elaborated on the three terraces was possibly replicated at the lower end of the causeway, at the edge of the cultivated land: here, Howard Carter uncovered the remains of a valley temple consisting of two terraces, with at least one colonnaded portico<sup>39</sup>.

16 Thutmosis III (1479–1425 B.C.E.), co-regent and successor of Hatshepsut, erected his own mortuary temple at Deir el-Bahari, placing it between the temples of Mentuhotep II and Hatshepsut<sup>40</sup>. His temple also comprises three terraces, though on a higher level, with a very elongated ramp leading to the second terrace. Again, a chapel of Hathor was incorporated<sup>41</sup>. The tradition was not continued by subsequent kings, however. With the construction of mortuary temples outside of the valley of Deir el-Bahari, the differentiation of levels within the temples was greatly reduced. Only the use of ramps points to their origin in the tradition of terraced temples<sup>42</sup>.

17 A late example of a terraced temple is the funerary temple of Amenhotep, son of Hapu, the only such building to be constructed by a private individual. Amenhotep had served as priest, functionary, and chief architect to king Amenhotep III (1388–1351 B.C.E.) and was responsible for the construction of several iconic monuments, including the temple at Luxor and the huge mortuary temple of the king, with the so called colossi of Memnon<sup>43</sup>. He was later especially revered as the author of a book of wisdom. His temple was excavated in 1934–1935 by Alexandre Varille (Fig. 8)<sup>44</sup>. Remarkable is the design of the first courtyard, which includes a 25 m × 26 m large water basin surrounded by trees. A ramp at the back leads up to a portico that forms the façade of the temple beyond. The arrangement of garden, ramp, and terrace follows the tradition of the temples at Deir el-Bahari and ultimately the valley temples of the Old Kingdom.

39 Carter 1912; Iwaszczuk 2017, 60–64.

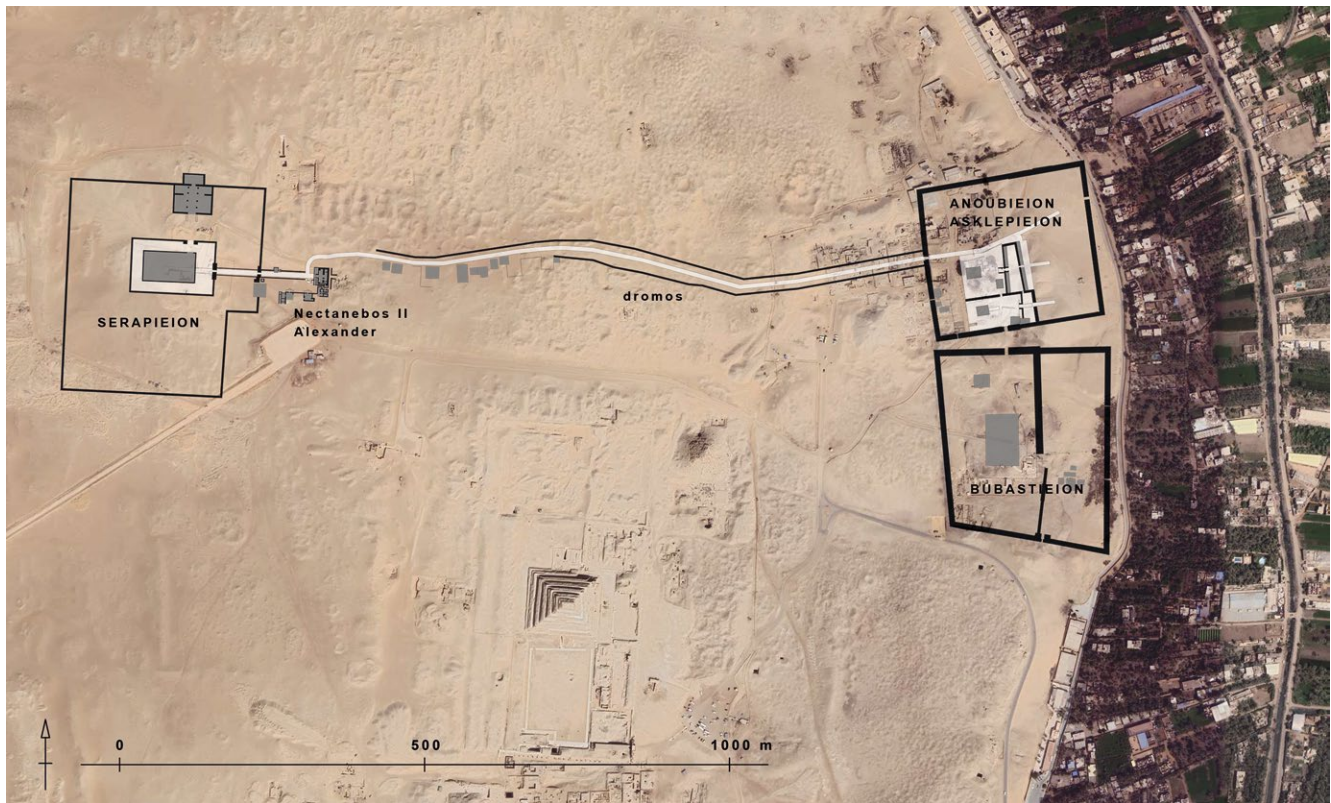
40 Lipińska 1977.

41 Beaux 1995.

42 For an overview of the mortuary temples of the New Kingdom see Schröder 2010.

43 Wildung 1977.

44 Robichon – Varille 1936.



9

Fig. 9: Map of Sakkara with the location of the Serapieion, Anoubieion, Asklepieion and Bubastieion, as well as the dromos and the tombs of Nectanebos II and Alexander the Great

18 Some 1200 years later, Amenhotep, son of Hapu, came to be worshipped in the temple of Hatshepsut at Deir el-Bahari<sup>45</sup>. A chapel was dedicated to Amenhotep and to another deified official, Imhotep. To understand why this is so, we must return to Memphis.

## The Anubieion at Sakkara

19 According to Manetho, Imhotep was the architect of the pyramid complex of King Djoser (2720–2700 B.C.E.) and responsible for the development of stone architecture in Egypt. The historicity of Imhotep is confirmed by an inscription on the base of a statue of King Djoser, which mentions Imhotep as the chief sculptor<sup>46</sup>. Legends of his magical powers arose as early as the Middle Kingdom, and in the New Kingdom he was credited with the earliest written book of wisdom, as well as the invention of hieroglyphic writing, the calendar, and the mummification process. Since the Late Period he was worshipped as the son of Ptah and the god of medicine.

20 The tomb of Imhotep is mentioned already in a harper's song of the Middle Kingdom, but its actual location may have been forgotten by then<sup>47</sup>. In the Late Period, a time when the past was increasingly glorified and archaisms abounded in art and architecture, a temple was built on its supposed site at Sakkara, the ancient necropolis of Memphis. Contemporary texts indicate that the temple stood just north of the »Temple of the Peak« (*ḥwt-ntr Thny n ʿnh-t3wy*), a temple dedicated to Bastet, a feline goddess of protection and fertility. This sanctuary, later known as the Bubastieion, and the associated cat cemetery are well known archaeologically, and the location of the temple of Imhotep

45 Lajtar 2005.

46 Wildung 1977.

47 Lichtheim 1945, 191–195.



10

can be inferred from it (Fig. 9. 10)<sup>48</sup>. Both temples stood on the edge of the desert near the pyramid of King Teti (2318–2300 B.C.E.). Further north was the temple of Anubis, as well as a processional way leading deep into the desert to the catacombs where the mummified Apis bulls had been buried since the late New Kingdom and which later became known as the Serapieion<sup>49</sup>.

21 The Anoubieion, the temenos encompassing the temples of Imhotep and Anubis and known locally as as-Siġn Yūsuf »the Prison of Joseph«, was first excavated by Auguste Mariette in 1850 as part of his survey of the Serapieion<sup>50</sup>. Further excavations were carried out by Alexandre Barsanti in 1900 and by James Quibell in 1905–1907<sup>51</sup>. Today, much of the site is covered by huge piles of debris from surrounding excavations, and our understanding of the temple structures remains sketchy. However, careful stratigraphic excavations conducted by David Jeffries and Henry Smith in 1977–1981 have clarified some aspects of the layout and development of the temple complex<sup>52</sup>. They were able to locate both the road leading to the Serapieion and the location of the Temple of Anubis (referred to in the publication as the »Central Temple«). Just south of this building, the remains of another sanctuary were found (called the »South Temple«). This is the most likely candidate to have been the temple once dedicated to Imhotep<sup>53</sup>.

Fig. 10: Sakkara, Egypt. The Anoubieion (6<sup>th</sup> to 2<sup>nd</sup> century B.C.E.). a: section; b: general plan

48 Thompson 2012, 19–22.

49 For the topography of Sakkara in the Late Period see Thompson 2012, 17–28; Radomska 2012; Renberg 2017, 394–403.

50 Mariette 1882; Mariette 1889, 2 pl. 2.

51 Quibell 1907; Quibell 1908.

52 Jeffries – Smith 1988.

53 Thompson 2012, 19–22. Another possible location of the temple of Imhotep would be in the northern part of



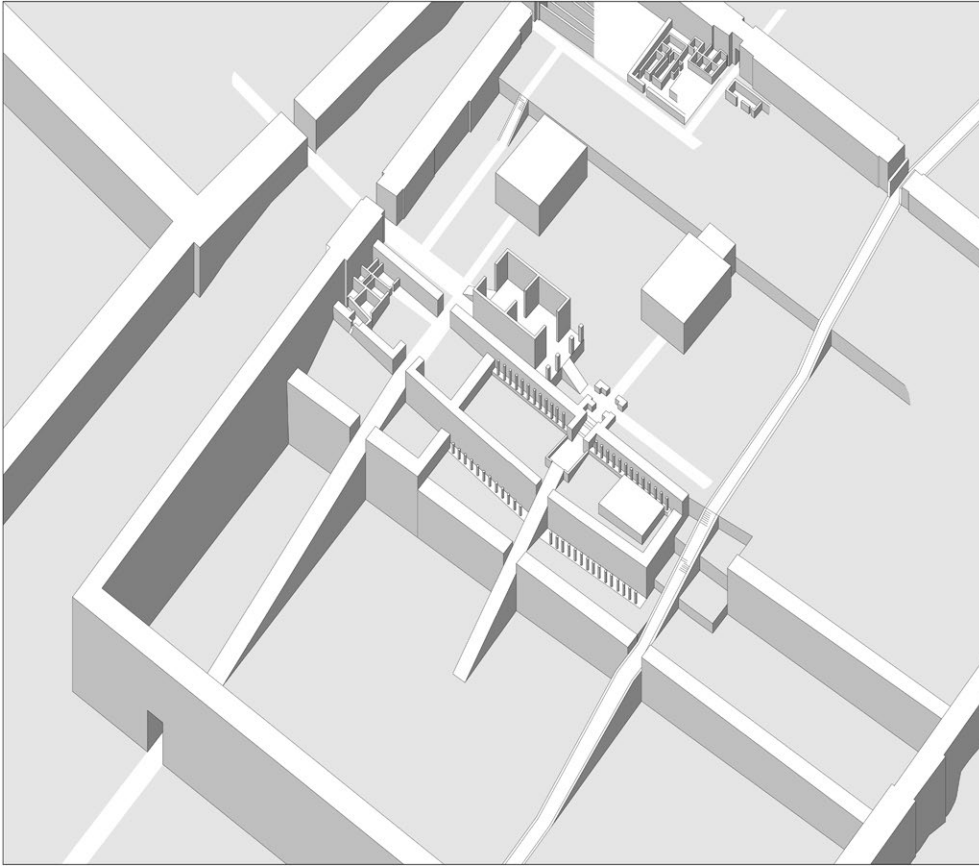


Fig. 12: Sakkara, Egypt. The Anoubieion (6<sup>th</sup> to 2<sup>nd</sup> century B.C.E.), reconstruction

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24 The significance of building temples as terraced structures had probably shifted again in the Late Period. Festivals, while still celebrated, were not as significant and not as public as they had been in the New Kingdom, and the staging of such events was not the primary concern in temple design any more. A far greater concern now was the purity of the sanctuaries and their protection from external, potentially ›evil‹ factors such as dirt, water, and people not considered sufficiently ›pure‹<sup>58</sup>. One method of protection was the construction of high perimeter walls. In the case of the Anoubieion, a huge enclosure wall was built by Nectanebos I<sup>59</sup>. Terraces would have been another means of separating and thus protecting different degrees of purity, thus ensuring the sanctity of the innermost chapel.

25 In 332 B.C.E. Alexander the Great sacrificed to the living Apis bull in Memphis, demonstrating his respect for Egyptian culture and religion. He may also have visited the temples at Sakkara. When Ptolemy I in 321 B.C.E. took charge of Alexander's body, he brought it to Memphis for burial. The most probable location of this first tomb of Alexander – before it was moved to Alexandria in 283 B.C.E. – is next to that of the last native king of Egypt, Nectanebo II<sup>60</sup>. The mortuary chapel of this king was uncovered by Mariette opposite the entrance to the Serapieion, where the Apis bulls were buried<sup>61</sup>. Next to the temple of Nectanebos II, a hemicycle of statues representing Greek philosophers and poets was added<sup>62</sup>. Nectanebos I had connected the area to the Anoubieion by way

58 Cf. Arnold 2022, 79–83.

59 Arnold 1999, 111.

60 Arnold 1999, 109 f. 130 plan III.

61 On Serapis and his relation to Apis-Osiris see Stambaugh 1972; Renberg 2017, 396–408, with further bibliography.

62 Preserved are the statues of Plato, Heraclitus, Thales, Protagoras, Homer, Hesiod and Pindar. McKenzie 2007, 119 f.



of a dromos lined with sphinxes. The whole complex now resembled the composition of a pyramid complex of the Old Kingdom, with the catacomb of bulls, the royal necropolis and the mortuary chapel taking the place of the pyramid and the pyramid temple, the dromos functioning as causeway, and the Anoubieion as valley temple. The terrace temples of Imhotep and Anubis became essentially the valley temple of Nectanebos II and Alexander the Great<sup>63</sup>.

## The Asklepieion of Kos

26 Ptolemy II Philadelphos (284–246 B.C.E.), son, coregent and eventual successor of Ptolemy I, was born on the island of Kos in 309 B.C.E. The island was home to a sanctuary of Apollo, located on the slope of a hill south of the city. A renowned school of medicine flourished here, though its association with the famous physician Hippocrates remains unclear. The sanctuary was excavated by Rudolf Herzog in 1902–1904 and documented by Paul Salzman in 1922<sup>64</sup>. According to the results of their work and subsequent research, an altar had been dedicated here to Asklepios, the Greek god of healing, already by the middle of the 4<sup>th</sup> century B.C.E. It stood together with several other buildings on an artificial terrace, supported by massive terrace walls (Fig. 13).

27 As a native son, Ptolemy II became a special patron of this sanctuary. He may have erected the first temple at the sanctuary, opposite the existing altar (Temple B)<sup>65</sup>. On a level 11.7 m above, Ptolemy II added a terrace 80 m long and 60 m wide, surrounded on three sides by halls with wooden supports and screens. The terrace was apparently planted with a grove of trees. On a level below the sanctuary he built another terrace, 93 m long and 47 m wide, again surrounded on three sides by halls. The sanctuary now consisted of three terraces, one built above the other. The orientation of the individual terraces diverges, apparently to make the center visible to visitors approaching from the city of Kos. Eumenes II of Pergamon (197–159 B.C.E.) would later embellish the sanctuary, connecting the terraces by monumental staircases, rebuilding the columned halls on the third terrace in marble and constructing a Doric temple in its center (Temple A). This new temple would mark the focal point of the central axis of the sanctuary (Fig. 13. 14).

28 Meanwhile in Egypt, Imhotep (spelled *Imouthes* in Greek) had by this time been identified with Asklepios, and it was once again Ptolemy II who became the patron of his temple at Sakkara, now known as the Asklepieion. According to the archaeological investigation of Jeffreys and Smith, he extended the existing upper terrace of the temple (Fig. 11)<sup>66</sup>. The simultaneous investment in the Asklepieion of Kos and that of Sakkara, both now terraced sanctuaries, is evidence of a special regard for the god of healing on the part of Ptolemy II.

29 Whether the terraced temples at Sakkara influenced the design of the sanctuary at Kos is not recorded by contemporary authors. Even if the architects at Kos were indeed inspired by Egyptian prototypes, this would not exclude other sources of influence. Terraced architecture was widespread in the Aegean at the time, usually by force of the existing topography. Pergamon and the sanctuary of Athena Lindia on Rhodos are only the most emblematic examples, from the 3<sup>rd</sup> century B.C.E. onward<sup>67</sup>.

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63 A special relationship between the two kings was later postulated by the *Alexander Romance*, written in 338 C.E., which identified Nectanebos II as the biological father of Alexander.

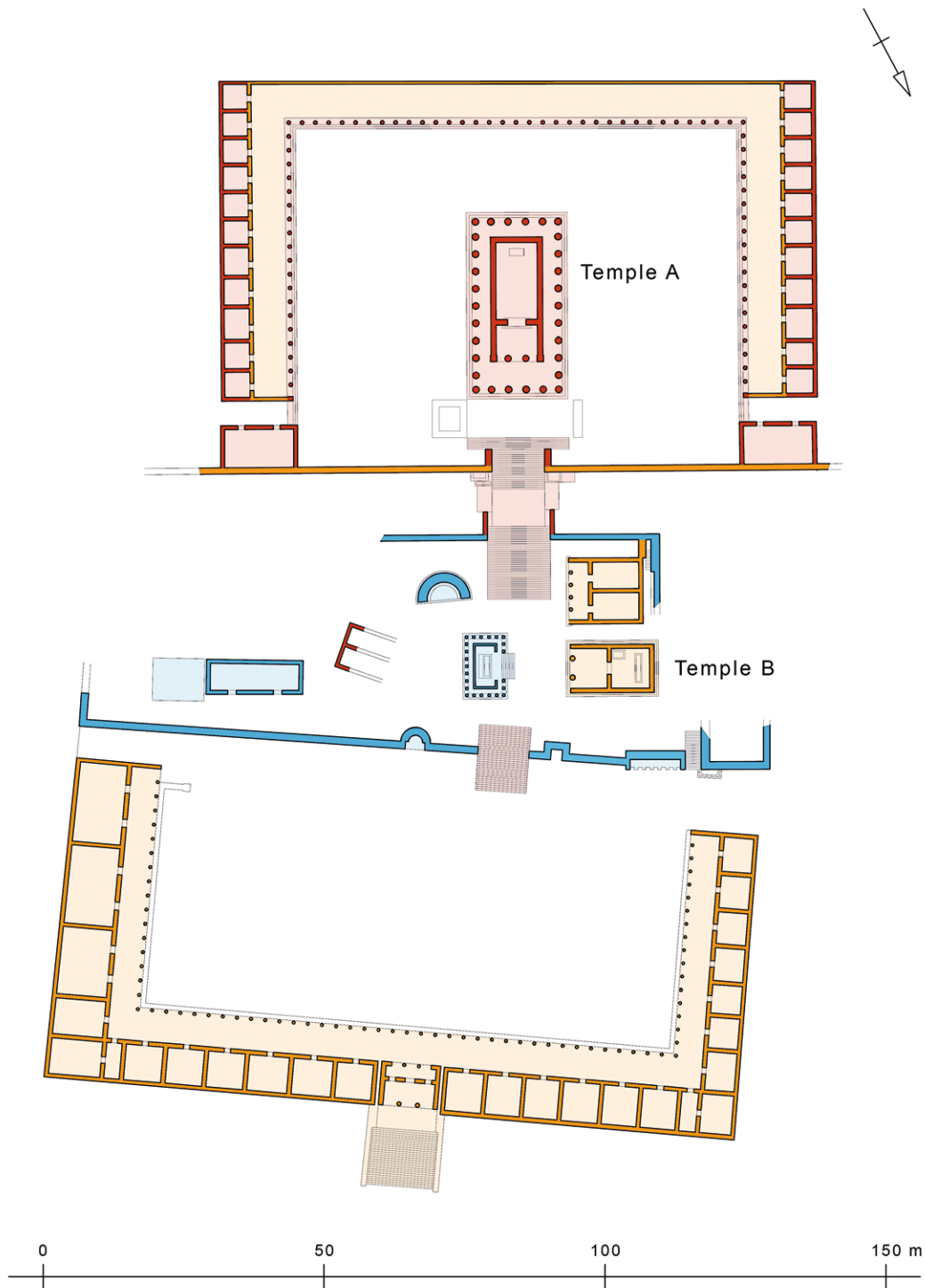
64 On the sanctuary and its development see Schazmann 1932; Interdonato 2013; Livadiotti 2013; Rocco 2017. The sanctuary has recently been the subject of a DFG-research project of the University of Cologne, directed by H. von Hesberg and D. Boschung, Ehrhardt 2014.

65 Hoepfner 1984, 358–361.

66 Phase IV, with inscriptions of Ptolemy II and Ptolemy V. Jeffreys – Smith 1988, 50. 53.

67 Dyggve 1960. On the relationship between Kos and Pergamon see Laufer 2021, 145–149.

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13

Terraces had also been a common feature of Achaemenid architecture<sup>68</sup>. A particularly interesting example is a terraced sanctuary along the Awali river near Sidon (Lebanon), dedicated by Eshmunazar II (539–525 B.C.E.) to Eshmun, another god of healing identified by the Greeks with Asklepios<sup>69</sup>. The design of the Asklepieion at Kos must certainly be viewed within this wider context of cultural interaction.

Fig. 13: Kos, Asklepieion. Plan with building phases. Blue: 4<sup>th</sup> and early 3<sup>rd</sup> century B.C.E.; yellow: 3<sup>rd</sup> century B.C.E.; red: 2<sup>nd</sup> century B.C.E.

68 Kleiss 1998.

69 Oggiano – Xella 2009, with bibliography. Interesting is the strong Egyptian influence on this temple. Stucky 2005.

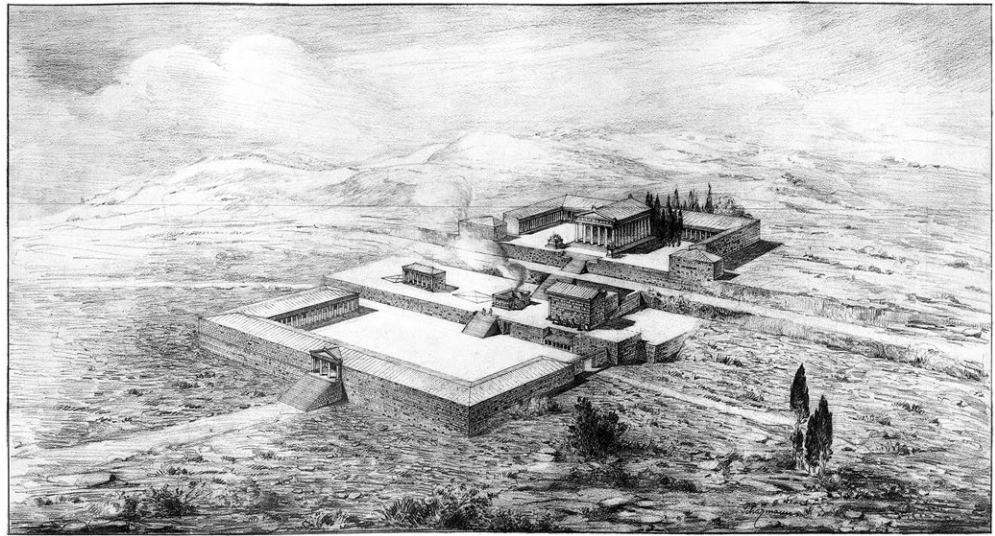


Fig. 14: Kos, Asklepieion (3<sup>rd</sup> to 2<sup>nd</sup> century B.C.E.). Reconstruction

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30 There is a more profound relationship between the sanctuaries at Sakkara and Kos, however, which warrants closer examination. The cult of Asklepios holds a special place in the history of Greek religion<sup>70</sup>. Visitors to the sanctuaries of Asklepios at Epidaurus, Kos and elsewhere were believed to be able to have direct, personal contact with the god in their dreams, allowing them to converse with the god himself and to negotiate for their health. At the sanctuaries of Asklepios, including those at Kos and Sakkara, dormitories were built where pilgrims could spend the night and hope to meet the god in their dreams<sup>71</sup>. This set the cult of Asklepios apart from traditional Greek cults, in which worship was a communal affair and access to the god was restricted.

31 This most profound change, which began with the liberation of the individual in the 3<sup>rd</sup> century B.C.E., is reflected in an equally fundamental change in architecture. As Gottfried Gruben noted, »the architecture of the 3<sup>rd</sup> century no longer rests in itself, but is destined to affect the viewer, the individual«<sup>72</sup>. The visit to a sanctuary became an individual affair, where the spiritual and visual impact of the architecture took center stage. Terraced structures, where visitors could ascend from one terrace to another, taking in new sights and experiencing a novel combination of landscape and architecture, were the ideal stage for this new regard for the perspective of the individual beholder.

32 In the temples of Sakkara, Greek visitors seeking spiritual and visual experiences encountered such an architecture, fully developed and of great complexity. They would have been particularly impressed by the temple of Imhotep, the Egyptian god of medicine, in whom they recognized Asklepios. The Greeks would have appreciated aspects of this architecture that were not intended by the builders, who probably instead saw the protection of purity and sanctity as their priority. But the confrontation with a foreign and ultimately unfathomable culture may have inspired the Greek visitors, including the architects at Kos, to a new architecture.

33 Sanctuaries dedicated to Asklepios became wide spread throughout the Mediterranean in the Hellenistic period. One of them was the aforementioned shrine within the ancient temple of Hatshepsut at Deir el-Bahari, built by Ptolemy VIII Euergetes II

70 Graf 1997; Renberg 2017, 115–123, with further literature.

71 Renberg 2017. For the Imhotep temple at Sakkara see Renberg 2017, 423–434. In this context may also be seen the so called chambers of Bes found by Quibell in the Anubieion. Volokhine 2019, 245–248; Renberg 2017, 544 f.

72 Translated from German by the author. Gruben 1966, 380.

around 120/110 B.C.E.<sup>73</sup>. According to the Egyptian inscriptions, it was dedicated to Amenhotep son of Hapu and Imhotep, according to the Greek inscriptions to Ἀμενόθης, Asklepios and Hygieia, the daughter or wife of Asklepios<sup>74</sup>. Graffiti attest to frequent visits, by individuals praying for their health or seeking an answer through an oracle. The practice of incubation is also well attested at the site. The sanctuary was installed in the upper courtyard of the temple of Hatshepsut, directly in front of the rock chapel of Amun along the main axis of the temple. Given the Egyptian style of the chapel, scholars have tended to interpret this chapel in Egyptian terms, as a late manifestation of the regard for the deified functionaries Imhotep and Amenhotep. Jörg Martin Merz and Wolfgang Filser have seen this sanctuary as a possible link between the architecture of Hatshepsut and the architecture of Kos and Praeneste<sup>75</sup>. It is worth noting, however, that the graffiti in the chapel were all written by Greek and Roman visitors, not by native Egyptians. The cult of Amenhotep son of Hapu had continued in his own temple at Madinat Habu until at least 225 B.C.E. There is no attestation of him at Deir el-Bahari until the reign of Ptolemy II<sup>76</sup>. Rather than being the result of a local cult practice, the chapel was most likely created by foreigners, who recognized at Deir el-Bahari something familiar: a terraced sanctuary. At this point, the temple of Hatshepsut was not a prototype, but a monument into which the Greeks – more precisely the Ptolemies – could project their ideas of what architecture is meant to achieve.

34 The question at the outset of this paper was whether a direct link could be established between the sanctuary at Praeneste, built at the end of the 2<sup>nd</sup> century B.C.E., and the terraced temples in Deir el-Bahari, built between 2050 and 1425 B.C.E. As noted already by Merz and Filser, a certain similarity does exist in the overall design idea of the buildings, with their superimposed terraces and axial access by means of stairs and ramps. Also beyond doubt is the fact that the temples at Deir el-Bahari and the sanctuary at Praeneste were erected according to the norms and standards of their own culture and time. But was the design idea developed by the architects at Praeneste inspired, in some way, by the temple architecture at Deir el-Bahari? The evidence presented in this paper would suggest that this question needs to be rephrased. The sanctuary at Praeneste must be viewed in the context of developments in Hellenistic architecture, trends that may be recognized already in the sanctuary of Asklepios at Kos, as built in the time of Ptolemy II and Eumenes II. If an influence from Egypt did occur, it must have been at this, much earlier time. And if the architects at Kos were in fact influenced by Egyptian monuments, the temples at Sakkara are a much more likely candidate to having served as prototypes than those at Deir el-Bahari, against the wider backdrop of cultural interaction between Greeks and Egyptians. Terraced temples apparently existed at Sakkara since the time of Amasis (570–526 B.C.E.) and were in fact being embellished at the same time as the sanctuary at Kos. The peculiarities of the cult of Asklepios, and the special relationship between the Hellenistic world and Egypt, do indicate a setting in which such an influence seems at least possible, though this is not expressly confirmed by contemporary authors.

35 A very different question is whether the architects of the sanctuary at Praeneste themselves recognized a possible debt to Egyptian prototypes. Even if it is true that builders at Kos were inspired in some way by what they saw in Egypt, there is no record that subsequent architects were in any way aware of such an influence. In this regard one additional piece of evidence needs to be considered, and that is the famous Nile mosaic, which was found in a nymphaeum attached to one of the public buildings

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73 Lajtar 2005; Renberg 2017, 448–483.

74 Lajtar 2005, 46–49.

75 Merz 2001, 25; Filser 2013, 70.

76 Lajtar 2005, 23–31. 393–399.

of the forum of Praeneste, at the foot of the terraced sanctuary<sup>77</sup>. The mosaic contains a detailed depiction of the Nile, its landscape, wildlife and monuments, including a realistic representation of the temples of Canopus, Elephantine and Philae, among others. The date and possible sources of the depiction are still debated. In his monograph on the mosaic, Paul Meyboom favored a date around 120–110 B.C.E., which would make the mosaic contemporary with the sanctuary of Fortuna<sup>78</sup>. Some have suggested that the images are based on earlier drawings and paintings, possibly prepared in the time of Ptolemy III (246–221 B.C.E.), at a time the cult of Isis gained importance<sup>79</sup>. Whatever the exact date, meaning and sources of the mosaic, it does illustrate the special relationship between the society of Praeneste and the ancient culture of Egypt. Whether the design of the sanctuary of Fortuna was in some respects a conscious effort to recreate an Egyptian temple landscape must remain speculation.

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77 See Steinmeyer-Schareika 1978; Coarelli 1990; Gatti 2017; Meyboom 1995; Schrijvers 2007, among others. The building may have been dedicated to Isis. Krumme 1990.

78 Meyboom 1995, 16–19.

79 Meyboom 1995, 102–107. For the connection of the elites of Praeneste to Delos and the Ptolemaic empire see Coarelli 1987.

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## ILLUSTRATION CREDITS

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Fig. 1: Felix Arnold, based on J. M. Merz, *Das Heiligtum der Fortuna in Palestrina und die Architektur der Neuzeit*, Veröffentlichungen der Bibliotheca Hertziana (Munich 2001), fig. 6

Fig. 2: Felix Arnold, based on A. Labrousse – A. M. Moussa, *Le temple d'accueil du complexe funéraire du roi Ounas*, BdE 111 (Cairo 1996), figs. 8–9

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Fig. 9: Felix Arnold on a satellite image of Google Earth, based on D. G. Jeffreys – H. S. Smith, *The Anubieion at Saqqara I. The Settlement and the Temple Precinct*, Excavation Memoir 54 (London 1988); S. Williams, *Living amongst the Dead. Life at the Ancient Memphite Necropolis of Saqqara during the Late Period/Early Ptolemaic Era*, *Heritage* 2022, 5, 1462–1478, <https://doi.org/10.3390/heritage5030077>

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