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## From Tumulus to Pyramid: The Development of the Kushite Royal Tomb

Peter Lacovara

Much<sup>1</sup> of what is known about the archaeology of the ancient Sudan is thanks to the pioneering work of George Andrew Reisner and Dows Dunham.<sup>2</sup> Many of Reisner's interpretations of the evidence were, however, affected by an Egyptocentric viewpoint, which was reflected in numerous studies of ancient Nubian civilization at the time and is only now being rectified.<sup>3</sup> This is evident in Reisner's analysis of the development of the royal Kushite pyramids at the site of El-Kurru, where he posited a middle-step in the evolution of the structures, so that they went from mound to *mastaba* to pyramid in the same way as he had outlined for the developmental progress of Egyptian funerary monuments.<sup>4</sup>

El-Kurru was the earliest of the royal cemeteries associated with the Nubian capital at Napata and it contained the tombs of the kings of the Twenty-fifth Dynasty rulers of Egypt and Nubia and their ancestors (fig. 1). The site was excavated by George A. Reisner, director of the Harvard University Museum of Fine Arts Expedition, in 1918 and 1919. Situated on a low plateau on the west bank of the Nile and cut through by two *wadis*, one on the northern side of the cemetery and one that cuts through the southern part, from west to east, the site was a mile west of the Nile and ten miles downstream from Gebel Barkal. Several rows of tombs stretch across the Kurru cemetery (fig. 2), their demolished superstructures being somewhat difficult to interpret (fig. 3). Despite having been badly destroyed and plundered for building stone in antiquity,<sup>5</sup> they still yielded a rich array of material, overlooked by robbers in the debris of many of the burial chambers.

Reisner, and following him Dunham, saw the evolution of these tombs at Kurru as mirroring the development of the Egyptian pyramids, from a tumulus to a *mastaba* and then into a true pyramid.<sup>6</sup>

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1 This idea was introduced in a discussion I had with Lisa Heidorn and Timothy Kendall while we were both working at the Museum of Fine Arts, Boston in the 1990's. However, in a publication by Kendall (1999), he failed to present the totality of evidence I had considered. It is presented here in full, including the reasoning behind the suggestion, which was not presented in its entirety by Kendall along with corrections to his publication. The author would also like to thank Lisa Heidorn, Susan K. Doll, Janice Yellin, Geoffrey Emberling and David Ian Lightbody for their suggestions, and particularly to Andrew Boyce for his fine drawings and Franck Monnier for his masterful reconstruction of the pyramid field.

2 Cf. Adams (1977), pp. 75-76; Over the past few years, archaeological work has recommenced at El Kurru under the direction of Dr. Geoff Emberling (Kelsey Museum of Archaeology, Michigan) and Dr. Rachael J. Dann (Associate Professor, Egyptian & Sudanese Archaeology, University of Copenhagen), in collaboration with the National Council for Antiquities and Museums and partially funded by the Qatar Sudan Archaeological Project.

3 Van Pelt (2013).

4 Reisner (1936).

5 Possibly for the later construction of Pyramid Ku.1 and/or a Christian Period town wall. Cf. Emberling (2013); Skuldbøl (2013), p. 52.

6 Dunham (1953).

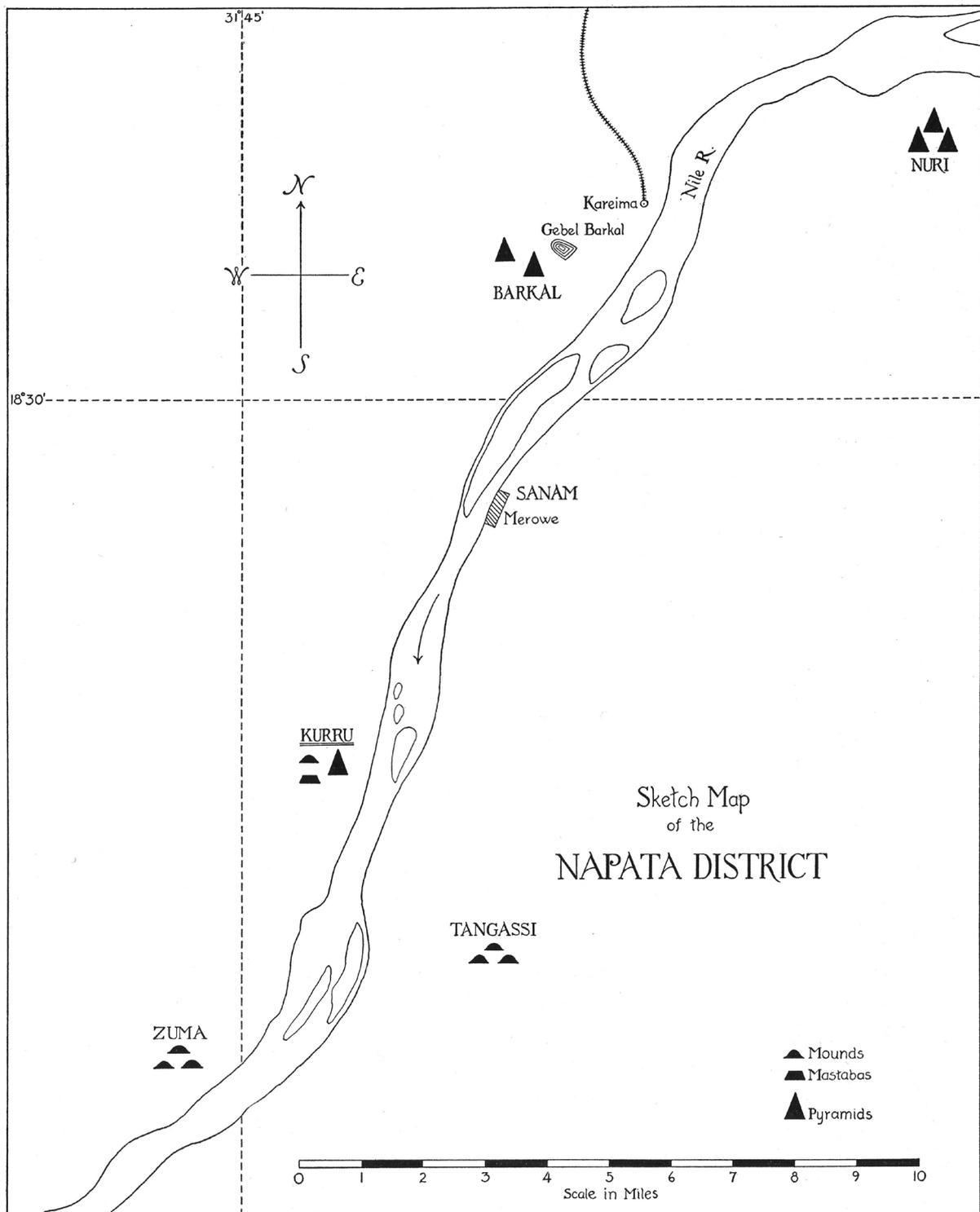


Fig. 1. Map of Napata District after Dunham (1950), Map I.





**Fig. 3.** Photograph of El-Kurru Cemetery after excavation.  
(photograph courtesy of the Museum of Fine Arts Boston)

Reisner, however, had difficulty squeezing the evidence into this conceptual framework and this is evident both in his notes and his publications.<sup>7</sup> Reisner's confusion about the superstructures is understandable, given that only a few courses of rough masonry blocks were still in situ when he came to the site. In fact, we would argue that these monuments seem to have evolved directly from a traditional Nubian tumulus grave with pit and side chamber, into a stone-built pyramid with underground burial chamber, omitting a transitional *mastaba* phase.

Reisner had posited eight phases of development from the earliest tumuli at El-Kurru (Ku. Tum. 1) to the appearance of the first pyramid in the reign of Piye (Ku. Pyr. 17).<sup>8</sup> He ranked them on the basis of the development of architectural features and assigned them to what he speculated were six generations of rulers before Piye. There has been some debate as to this chronology,<sup>9</sup> and Reisner's scheme probably did not correspond to actual generations.<sup>10</sup> This development may actually have taken place at a fairly rapid rate,<sup>11</sup> as has been shown by Lisa Heidorn's careful review of the ceramic material from the site.<sup>12</sup>

Dunham's interpretation categorized Reisner's Tumuli Ku. 1, 2, 4, and 5 in the earliest group = 'Generation A', followed by Tumulus Ku 6 and Tomb Ku. 19 in 'Generation B'. Following this

7 Reisner (1919); and in Dunham (1950), pp. 121-122.

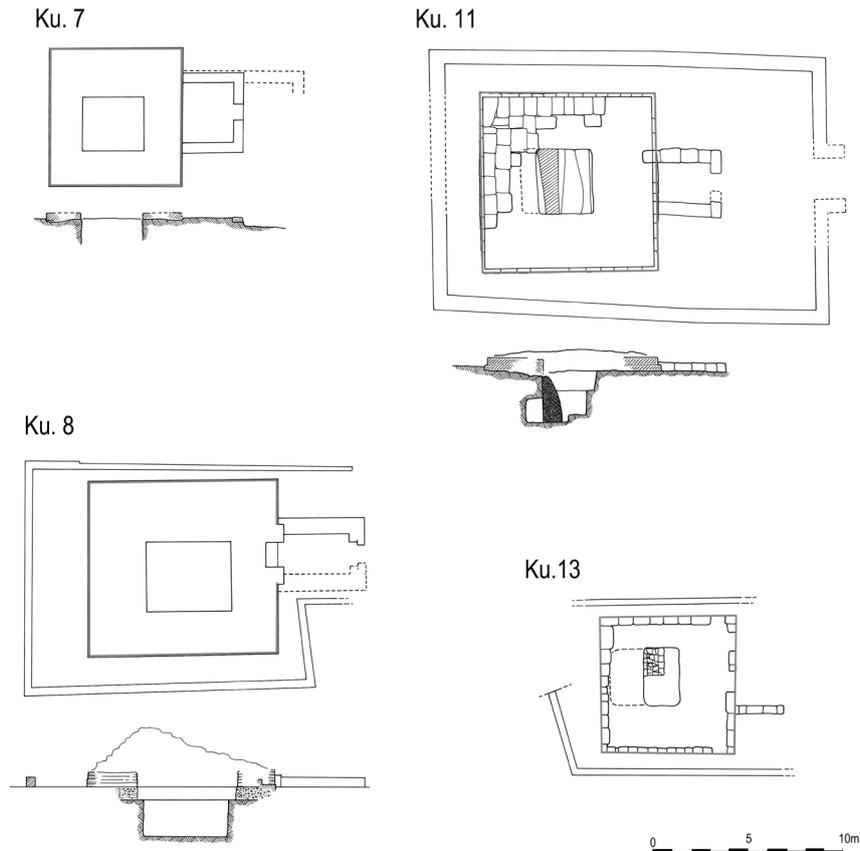
8 Dunham (1950), pp. 2-3.

9 Morkot (2000), pp. 140-144.

10 Reisner himself, was uncertain about the length of time represented here, suggesting a generation of 20 years in one place, but elsewhere 30 years. A generation that was between 25 and 28 years for females and 30 and 35 years for males could be viable (Lisa Heidorn, personal communication).

11 Earlier suggestions of a long time period for these tombs, extending back into the New Kingdom, are unfounded and not based on the entirety of the archaeological evidence. This was initially proposed by Kendall (1992); Hakem (1988), pp. 240-241; and Török (1999).

12 Heidorn (1994).



**Fig. 4.** Plans of Ku. 7, Ku. 8, Ku. 11 and Ku. 13. Although described as mastabas, the square ground plans of these structures are not dissimilar to the early Kurru Pyramids (Fig. 5). (drawing by Andrew Boyce)

were Ku. 13 and 14 in ‘Generation C’, and then Tombs Ku. 9, 10, and 11 in ‘Generation D.’ The last of the groups, the anonymous Generations, ‘E’, included tombs Ku. 21 and 23. Following these unnamed rulers is king Kashta, who is ascribed by Dunham to Ku. 8 in ‘Generation 1’, followed by Piye in Ku. 17 in ‘Generation 2’. The superstructures associated with these phases as described by Reisner go from a circular gravel mound (I) to a stone-faced gravel mound (II) and then a masonry *mastaba* encasing a rubble mound (III) followed by a masonry *mastaba* with rubble fill (IV) evolving into a masonry pyramid (V) (fig. 3), along with some other variants.<sup>13</sup>

For the earliest tombs, ascribed to ‘Generation A,’ Tumulus Ku. 1 was a circular gravel mound 7.3 m in diameter with a pit and side chamber.<sup>14</sup> Following the same plan was Tumulus Ku. 4 although slightly smaller, being roughly 6 m in diameter.<sup>15</sup> This was similar to Tumulus Ku. 5, which was 7 m in diameter.<sup>16</sup> Tumulus Ku. 2<sup>17</sup> had a perimeter of rough stone blocks surrounding a stone-roofed rectangular burial chamber, representing the beginning of the use of the masonry as seen in later burials.

<sup>13</sup> Dunham (1955), p. 274, chart 1.

<sup>14</sup> Dunham (1950), p. 12.

<sup>15</sup> Dunham (1950), p. 17.

<sup>16</sup> Dunham (1950), p. 19.

<sup>17</sup> Dunham (1950), p. 15.

The second stage in the development of these tombs was ‘Generation B,’ a phase that exhibits an increase in size and complexity, with Tumulus Ku. 6 having a diameter of 8.5 m, with a central mound encased in masonry, and with a mud brick chapel appended to the east side. The whole structure is surrounded by a horseshoe-shaped masonry enclosure wall.<sup>18</sup> Tumulus Ku. 19 is almost an exact replica of Ku. 6, although no trace of a chapel was found within the enclosure wall.<sup>19</sup> None of the chapels of these tombs have survived above the foundation courses, but a fragment of relief recovered by Reisner may have belonged to the chapel decoration,<sup>20</sup> and many of the tombs appear to have a niche in the back wall, perhaps for an Osiride statue as found in the pyramid of Senkamenisken at Nuri.<sup>21</sup>

In the ‘Generation C’ Tomb Ku. 14,<sup>22</sup> the circular mound was incorporated into a squared masonry structure 7.10 m square. Tomb Ku. 13 was an entirely square version of Ku. 14, at 7.0 m square.<sup>23</sup> For the next ‘Generation D’, tombs Ku. 10 and 11<sup>24</sup> closely adhered to the design of Ku.13, while Ku. 9 appears to have been similar in design and size, being just less than 7 m square.<sup>25</sup>

Tombs Ku. 21 and 23, ascribed to ‘Generation E,’ were so ruinous that it is difficult to place them within the sequence.<sup>26</sup> With the first dynastic generation, tomb Ku. 8, suggested by Dunham to be the tomb of Kashta,<sup>27</sup> there is a more massively built superstructure, approximately 10 m square, and not dissimilar to Ku. pyramid 17 of Piye;<sup>28</sup> although Ku. 17 incorporated the development of a stairway descending into the burial chamber, which became a feature of all the later royal Nubian pyramids.

Looking at the superstructures of the burial monuments that Reisner and Dunham described as *mastabas*, built between ‘Generation C’ and the reign of Piye, we can see that they are all more or less square and not dissimilar to Piye’s pyramid in ground plan (fig. 4). Indeed, there is some confusion in the attribution of these structures, as for example for Ku. 7, described by Dunham as having ‘Traces of one c.[orner] of sandstone masonry *mastaba* (?)’;<sup>29</sup> and in Ku. 8 published as a ‘Sandstone masonry *mastaba* (?)’.<sup>30</sup> In plan and dimensions, it is also apparent that these tombs recall the earlier tombs Ku. 11 and 13 (fig 5).

It is, therefore, reasonable to conclude that with the first squaring-off of the traditional tumulus burial structure there was an architectural jump straight to a pyramidal superstructure without an intervening *mastaba* stage. Then the subsequent tombs that were speculated to be *mastabas*; Ku. 7, Ku. 8, Ku. 9, Ku. 10, Ku. 11, Ku. 13, Ku. 14, and Ku. 23, would all actually be early pyramids. This switch to the pyramid form of funerary monument would fit well with what can be seen as the adoption of the idiom of empire by the new dynasty.<sup>31</sup>

18 Dunham (1950), p. 21.

19 Dunham (1950), p. 7.

20 Kendall (1999), pp. 32-33, fig. 15.

21 Dunham (1955), p. 41, fig. XI B.

22 Dunham (1950), p. 54.

23 Dunham (1950), p. 51.

24 Dunham (1950), pp. 48-49.

25 Dunham (1950), p. 47.

26 Dunham (1950), pp. 76-77.

27 Although there is no documentary evidence for this assertion, Dunham (1950), p. 46.

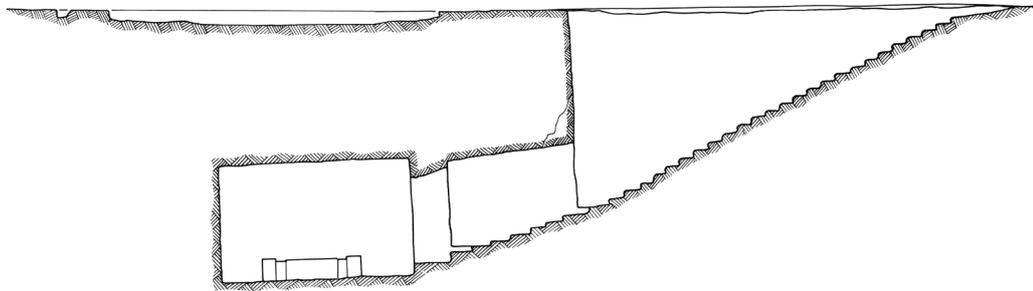
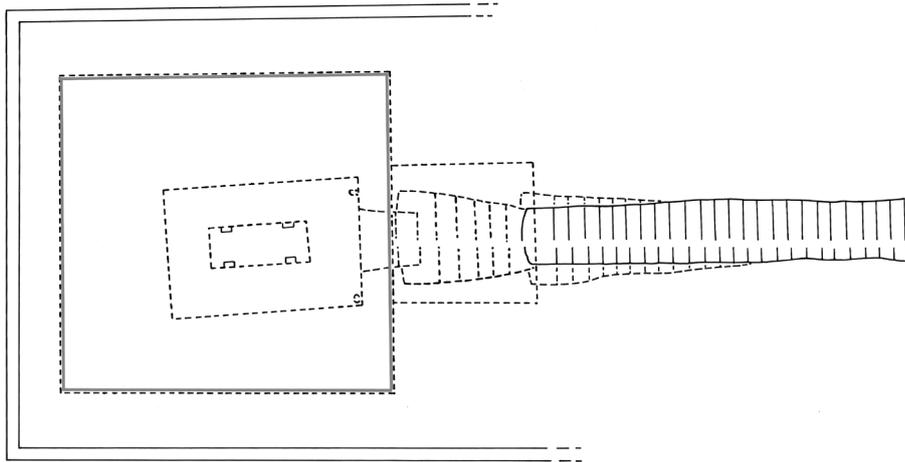
28 This is the first king’s tomb where we have inscriptional evidence of the owner both from stairway and burial chamber (Dunham (1950), p. 64).

29 Dunham (1950), p. 44.

30 By the author during a site visit on November 5, 2014. With many thanks to Mohamed Osama for facilitating this trip.

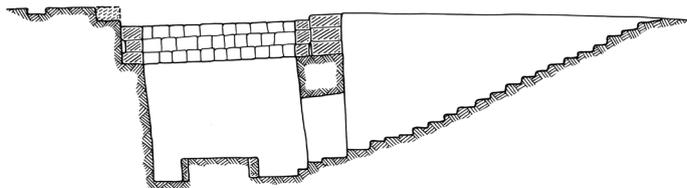
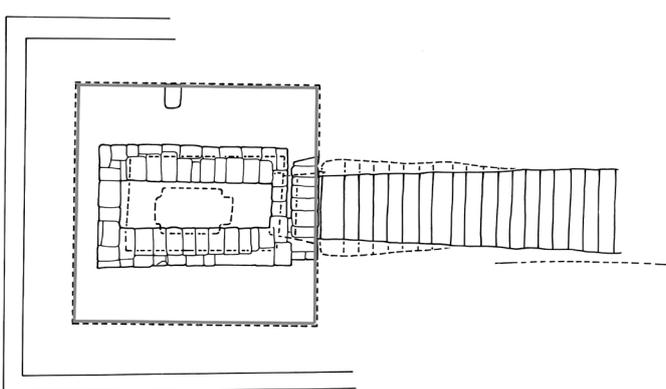
31 Cf. Ambridge (2007), although the author does not see the direct jump to the pyramid form without the intervening *mastaba* stage, which would surely strengthen her argument. Note also that the New Kingdom Egyptian pyramids in Nubia, such as those at Aniba (Steindorff, (1935-1937), Pls. 36-45) closely correspond in size and plan to the early Kurru pyramids.

Ku.15

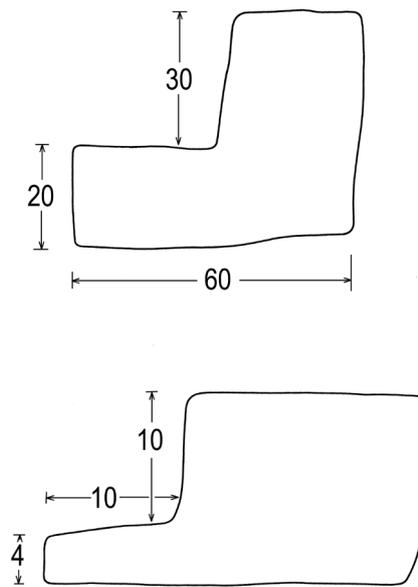


0 5 10m

Ku.17

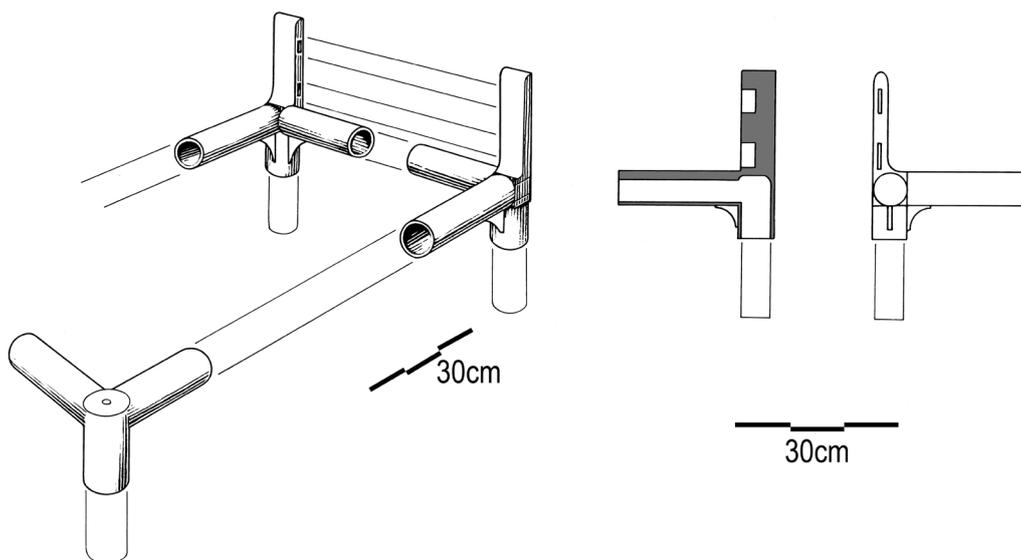


**Fig. 5.** Plans of the pyramids Ku. 17 (Piye), and Ku. 15 (Shabako).  
(drawing by Andrew Boyce)



All measurements in centimetres

**Fig. 6.** Cuts in foundation course blocks for Ku. 10 and Ku. 13.  
(drawing by Andrew Boyce)



**Fig. 7.** Bronze bed fittings from the tomb of Amenirdis I at Medinet Habu.  
(drawing by Andrew Boyce after Hölischer (1954), fig. 27, p. 24)

Although ruined, some of the structures are still well enough preserved so that the sides slopes can be observed and measured. Ku 7, Ku, 8, and Ku. 11,<sup>32</sup> have inclines of approximately 55°-60°, similar to those of the later pyramids at Nuri.<sup>33</sup> The Kurru pyramids would also have been similar in appearance to the later Nuri monuments rather than to the Meroitic pyramids.<sup>34</sup> They would not have been built on a high platform like the Meroitic Period pyramids, but instead on a rather low base, as can be seen from the remaining base courses in Ku. 10 and Ku. 13, where the foundation or plinth course blocks have been cut back to form a very shallow platform (fig. 6).<sup>35</sup>

It has been suggested that the summits of the pyramids at Kurru were topped with sculptures of *ba* birds, but this seems highly unlikely. This idea was suggested on the basis of one bronze bird leg found on the surface between Ku. 9 and Ku. 23.<sup>36</sup> The leg, however, is hollow cast and without a tang for attachment as is seen in similar sculptural components.<sup>37</sup> Moreover, the leg is similar in size and shape to bronze fittings for a funerary bed found in the burial chamber below the chapel of Amenirdis at Medinet Habu (fig. 7).<sup>38</sup> The shape of the leg (fig. 8) suggests that it is the rear part of a funerary bed with a footboard. Such beds, placed under the coffins of the Napatan burials, evoked the earlier Nubian tradition of bed burial. These supports vary considerably in style, in material used, and in shape, from bronze legs in the form of geese found in Ku. 72,<sup>39</sup> to wooden legs shaped like sphinxes,<sup>40</sup> to the abstract geometric shapes from Ku. 13,<sup>41</sup> and to a support formed like a female figure.<sup>42</sup> The ‘pyramidion’ with a socket suggested to have been a sculpture adorning the summit<sup>43</sup> is more likely to be a truncated pyramidal furniture support of a type well known in ancient Egypt<sup>44</sup> and the bronze bed legs and wooden examples noted above are close comparanda. While sockets do appear in capstones associated with the Meroitic pyramids, it is uncertain what they were for.<sup>45</sup> In addition, the cylindrical apex decoration of these pyramids has been suggested to evoke their unique construction methods.<sup>46</sup> As Friedrich Hinkel discovered, these pyramids were built with the aid of a lever attached to a pole running through the center of the structure, and the ‘pyramidenstumpf’ may have mimicked or been associated with that. There is no evidence that the Napatan pyramids were constructed in such a manner and their sizes and shapes seem to preclude the use of such a device.

While the Meroitic Period pyramids built much later at Karanog were decorated with *ba* statues, these were not placed at the top of the pyramids, but in front of them, and they had human feet.<sup>47</sup> There is no indication that these were associated with any earlier tradition, and the reconstruction of the Kurru cemetery with a flock of *ba* birds perched upon pointy pyramids<sup>48</sup> cannot be taken seriously.

32 Personal observation, November 5, 2014.

33 Cf. Dunham (1955), pp. 7, 20, 41, 56, 78, 161, 154, 168, 194, and 211.

34 Hinkle (2000).

35 Personal observation.

36 Kendall (1999), pp. 3-117, esp. 33.

37 Cf. Roeder (1956), pp. 403-405.

38 Hölscher (1954), p. 24.

39 Wildung (1997), pp. 184-185.

40 RMO Leiden F 2000/6.1 and British Museum, BM EA 24656.

41 Kendall (1999), p. 111.

42 Louvre E 7652.

43 Kendall (1999), pp. 33, 113.

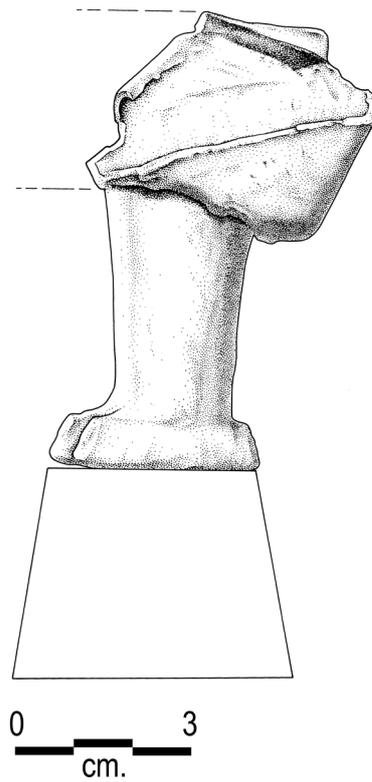
44 Cf. Eaton-Krauss and el-Saddik (2011), pp. 181-197, esp. 191-193.

45 Hinkel (1984); There has been a recent discovery of what may be a vegetal-and-ball shaped capstone from a pyramid at Sedeinga: <http://sfdas.com/fouilles-et-prospections/autres-fouilles-francaises/article/sedeinga?lang=en>, not at all unlike the finial found on the hut depicted on the Karanog bowl, as noted in Hinkel (1982), p. 136.

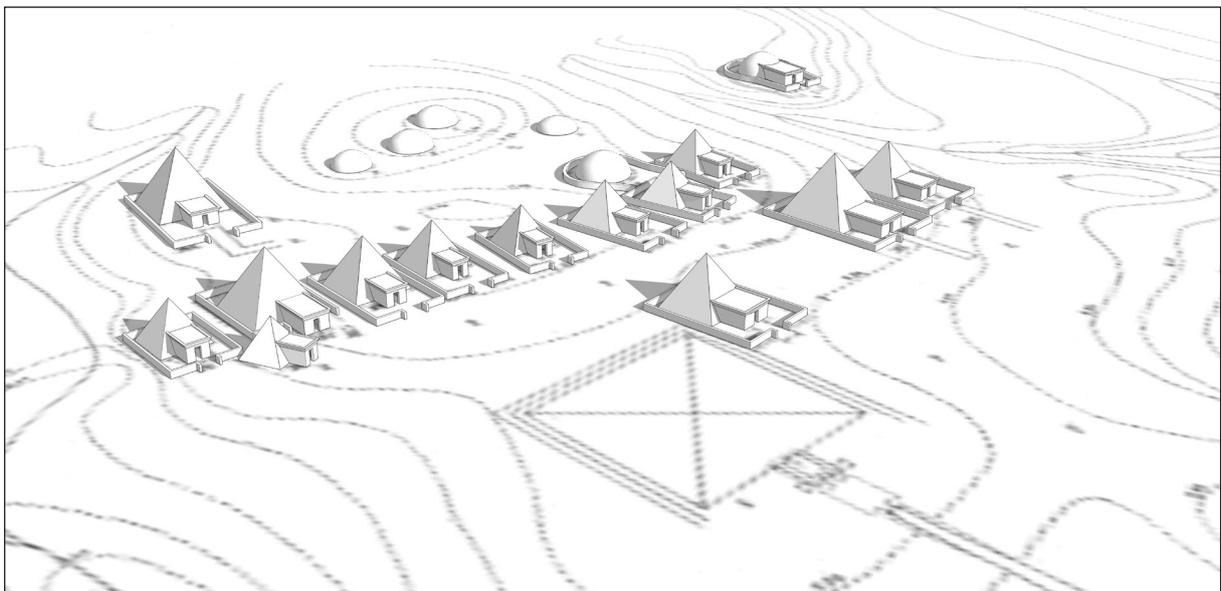
46 Hinkel (1982), pp. 127-148.

47 Leonard Woolley and Randall-Maclver (1910), pp. 46-48.

48 Kendall (1999), pp. 101-102.



**Fig. 8.** Bronze bird leg from el Kurru, Museum of Fine Arts, Boston  
BMFA 21.11911 (22.5 x 7.5 x 15.5 cms.).  
(drawing by Andrew Boyce)



**Fig. 9.** Reconstruction of El-Kurru Royal Cemetery in the 25<sup>th</sup> dynasty  
(the later pyramid Ku. 1 is shown in ground plan only).  
(illustration by Franck Monnier)

## Conclusion

A revised reconstruction of the cemetery at El-Kurru is mandated by the details and arguments presented in this discussion. The evolution of the royal Kushite tomb proceeded directly from a traditional Nubian tumulus grave to a pyramidal form, without an intervening *mastaba* stage as was postulated by Reisner. Observations of the remains of the early pyramids at El-Kurru show that they are of a gentler slope than the later, Meroitic pyramids, and were not capped with figures of *ba* birds. A new rendering of the El-Kurru cemetery has been skillfully prepared by Franck Monnier. It is based on this discussion and the associated evidence (figs. 9-10).

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**Fig. 10.** Reconstruction of El-Kurru Royal Cemetery.  
(illustration by Franck Monnier)