

## A remarkable achievement

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## A remarkable achievement

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RICCIARDI, M., *con contributi di* M. G. AMADASI GUZZO, G. DI VITA-EVRARD, S. FORTI, L. MUSSO, A. PELLEGRINO, and D. PIACENTINI. 2018. *L'anfiteatro di Leptis Magna*. Monografie di Archeologia Libica 43. Rome: "L'Erma" di Bretschneider. Pp. xviii + 368, Arabic summary, pp. 21 by M. TURJMAN, 441 figs., 5 tavole *hors texte*. ISBN 978-8-89-130984-6.

The amphitheater at Leptis Magna, Libya, is a monument of fundamental importance in the development of this architectural genre. Not only is it one of the earliest provincial examples of its type,<sup>1</sup> but it is also extremely well preserved<sup>2</sup> and provides a unique example of a circus-amphitheater complex.

Considering the political and military turmoil in Libya since 2011, this monograph is a remarkable achievement. It represents the highest levels of academic scholarship and publication. Within the constraints of their sphere of activity,<sup>3</sup> the teams have produced a detailed, clear description of the physical architectural remains of the amphitheater as

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<sup>1</sup> Neronian date of initial construction, first half of 56 CE: Di Vita-Evrard 1965.

<sup>2</sup> Buried beneath sand blown in from the desert, spared extensive spoliation by the lack of a major medieval settlement nearby, and only despoiled by the Italian military to build fortifications near it.

<sup>3</sup> The teams were authorised to remove loose debris and sand, to clean, survey, photograph, and measure the monument, but were not permitted to undertake deep stratigraphic excavations,

well as its conjunction with the adjacent hippodrome on the beach to the north. Together they comprise the unique circus-amphitheater architectural complex.

The monograph begins with a preface (in both Italian [xi–xiv] and English [xv–xviii]), “Leptis e il suo anfiteatro” and “Lepcis and its Amphitheatre,” by M. A. Rizzo di Vita. This records that the monument was first discovered in 1865 by the German scholar G. Rohlfs. Excavations took place under the direction of the Italian archaeologist E. Vergara Caffarelli from 1959 to 1961. When he fell ill, Antonino di Vita, already the chosen Antiquities Advisor in Tripolitania, took over direction of excavations. From 1962, Di Vita continued to clear the monument, which was almost completely buried in over 60,000 m<sup>3</sup> of sand. In 1965, Omar Mahgiub, di Vita’s close friend and collaborator, took on the excavations. For many years Mahgiub oversaw not only the clearance, but also the restoration of the amphitheater. Excavations in the 1980s led to the discovery of the small temple atop the *summa cauea*. In anticipation of a final publication, the architect E. Fiandra undertook a partial evaluation of the monument. The clearance and much of the restoration work of the amphitheater and its annexes having been completed,<sup>4</sup> Fiandra and Di Vita decided to entrust the final monograph publication of this work to the architect, M. Ricciardi (R.). This monograph would encompass a complete survey and documentation of the monument and the elucidation of its many construction phases, as well as the production of graphic reconstructions of the structure. In addition, an evaluation of how to proceed with the much-needed preservation work for this monument was included.

The initial section of the monograph (9–10) consists of a detailed account of the various notices of travelers who visited Lepcis Magna, from the 11th-c. CE Arab geographer, Al-Bakri to the 19th-c. German explorer G. Rohlfs. A review of the earliest investigations of Halbherr in the early 20th c. and the Italian archaeological mission follows (10–14). In January 1912, the commercial spoliation of this site was prohibited by General L. Caneva and two distinct Soprintendenze were also created. Lepcis Magna came under the directorship of Salvatore Aurigemma in February 1912. He continued in this post until Pietro Romanelli was appointed Soprintendente in July 1920. Work on clearing the influx of shifting sands into the open bowl of the amphitheater continued from 1910 to 1939. This section is illustrated by a series of excellent black-and-white contemporary archival photographs.

After the lull in archaeological activity during World War II, and the work of Caffarelli, Di Vita, and Mahgiub that followed, in 1965, G. Di Vita-Evrard published the dedicatory inscription of this amphitheater, which had been uncovered in 1961 in front of the arches of the western main entry into the arena.<sup>5</sup> This inscription specified that the amphitheater had been built with public funds (*ex pecunia publica*) and was dedicated in the governorship of Marcus Pompeius Silvanus Staberius Flavianus, which provided a precise date of the first half of 56 CE.

Di Vita’s numerous publications during the 1960s provided excellent summaries of the results of his excavations. He identified several phases of construction and reuse,

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particularly of the subterranean structures of the arena. However, some limited sondages were allowed to clarify the exact extent of the monument’s external limits.

<sup>4</sup> The subterranean structures of the arena remain buried.

<sup>5</sup> Di Vita-Evrard 1965.

including the mid-5th-c. CE conversion of several small chambers that were used for dwellings.

In a review of research other than her own, M. Ricciardi traces the history of excavations, reconstructions, and publications until 2016 in a thorough fashion. This section ends with a series of plans (24–25) tracing the major phases of development of the amphitheater.

The second chapter (26–34) is a summary of the new excavations, surveying, planning, and analyses undertaken by M. Ricciardi and her team. In 2003, the architect E. Fiandra undertook a comprehensive survey and plan of this structure and its architectural relationship with the hippodrome along the beach to the north. This work included complete photographic documentation of these structures to specify the various construction techniques used in this complex. The results are presented in a series of five *tavole (hors texte)* of plans and sections, the best documentation available for this architectural complex. These plans and sections are an enviable achievement, clearly labelled and even including details of the engraved letters and symbols on the seating of the *cavea* on *tavolo III fuori testo*.

The objectives of the latest studies and excavations are clearly stated (28): first, to study the architectonic structure and the construction techniques employed in this monument; second, to acquire new details about the building, especially its decoration; third, to produce an up-to-date catalogue of the state of conservation of the monument and its old restorations. Among the most important new data is the detailed catalogue of inscriptions and inscribed signs and symbols upon the seating of the *cavea* and elsewhere in the building.

There is a section about the analysis of the monument's physical location and its relationship to the civic centers (29–30). An intensive investigation into the geometrical form of the amphitheater and its dimensions (29–34) summarizes the latest data about this structure.<sup>6</sup>

Chapter III (35–154) is a beautifully detailed description of the components of the amphitheater, accompanied by clear photos, plans, and section drawings: the arena (35–94) and the *cavea* (94–154).

The arena wall (35–39) is crowned by a series of holes for holding an oblique wooden structure supporting a net to provide greater security for the spectators.<sup>7</sup> The surface of this arena wall originally bore painted frescoes, traces of which are still visible in red, ochre, yellow and, rarely, green. At a later phase the wall was revetted with white marble slabs, held in place by means of a layer of mortar and iron crampons. Ten doorways, situated symmetrically (5 + 5) around the arena wall, gave access to the galleries and stairways that led to the *ambulacrum* (AA) that lay approximately 10 m behind the arena wall.

R. next describes the arena and its subterranean structures (*hypogaea*) (39–41). These substructures intersected in a large central space. R., citing Montali, notes the close similarity of the *hypogaea* of the amphitheater at Sabratha to those of Lepcis Magna. The remit to study the Lepcis Magna amphitheater did not include permission to excavate these

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<sup>6</sup> Overall dimensions: 109.67 x 99.00 m; dimensions of arena: 57.25 x 46.97 m; width of *cavea*: 26.25 m; surface area of arena: 2,214.28 m<sup>2</sup>; internal perimeter of arena: 168.03 m; total surface area: 8,776.25 m<sup>2</sup>.

<sup>7</sup> R. rightly rejects the alternate hypothesis that these holes were intended to hold the masts for the *velum* system on the basis of their oblique slant towards the arena.

substructures. R. provides estimates of their hypothetical depth by citing data gleaned from other arenas: the average depth of such *hypogaea* elsewhere is about 3 m, but more monumental amphitheaters had much deeper substructures (6.0–6.7 m deep).<sup>8</sup> R. clarifies speculation that there may have been *naumachiae* in this monument by pointing out that there is no evidence for either the influx of water or its drainage systems.<sup>9</sup> On the basis of the masonry lining the sides of these trenches at arena level, they were covered by wooden planks. Di Vita made a small sondage in the northeastern *exedra* of the minor-axis *hypogaeum* that revealed details of the construction of the side wall lining the trench. It consisted of good quality *opus caementicium* that revetted the rock behind it.<sup>10</sup>

The major-axis *hypogaeum* had two *exedrae* on each half of the subterranean galleries; the minor-axis *hypogaeum* had one *exedra* on each arm of the trench. The central sector, where these galleries intersected, was 8.40 m<sup>2</sup> and would have required additional internal pillars, such as occurred at the Lambaesis amphitheater, to support the longer spans of planking above these substructures. Access would have been via stairways or ramps like the ones at Sabratha, where there was a helical staircase, or at Lambaesis, where a ramp system was used. R. speculates that the narrow doorways (unexcavated) on either side of *vomitorium* I may have been used for such access.

The next section (41–87) deals with the series of doorways, beast pens (*carceres*), chambers, and galleries interconnecting with the arena.<sup>11</sup> R. interprets the major axial entrances into the arena as the *porta Libitinensis* (E) and the *porta Sanaoivaria/Triumphalis* (W).<sup>12</sup> The *porta Libitinensis* was presumably the gate through which the corpses of dead gladiators were dragged off to be stripped of their panoply and prepared for burial. *Libitina* was the Roman goddess of burials. The *porta Sanaoivaria* or *Triumphalis* was presumably the gateway through which the ceremonial procession (*pompa*) entered and exited the arena and through which triumphant gladiators left it. The main eastern gateway had two lateral doorways. This arrangement would suggest that cages of animals would have been brought into the western main gallery (TT) and then into gallery P for deposition into *carcer* P'. This arrangement disrupts the symmetry of the arena's layout and might therefore represent a later phase of construction. The corresponding feature on the north side of the eastern main entrance to the arena consists of a simple passageway from the major-axis entrance (JJ) to a gallery (F) that provided access at one end to the arena itself and, at the opposite end, to the ambulatory (AA) beneath the *cavea*.

R. agrees with Di Vita-Evrard that the dedicatory inscription of this monument was placed on the flat arch spanning the front of the *porta Triumphalis/Sanaoivaria*.<sup>13</sup> This gateway led onto the western major-axis tunnel TT that in turn debouched into the western

<sup>8</sup> Montali 2015, 47–56, figs. 45–56; Golvin 1988, 83–84 and 330–33, table 42; Hufschmid 2009, 460–88, figs. 227–69. Golvin (1988, 83–84) attributes these substructures to a 2nd-c. CE phase of construction.

<sup>9</sup> Golvin 2011, esp. 314.

<sup>10</sup> Di Vita 1966, esp. 86. Di Vita excavated to a depth of 2 m but did not reach the bottom of the *hypogaeum*. He also uncovered a terracotta lamp. See catalogue of lamps on 329–39.

<sup>11</sup> All the identifications used in this review, e.g., gallery P, are those used by R. on the plans and sections *hors texte*: Tavole I to V *fuori testo*.

<sup>12</sup> For the definition of these terms, see Hufschmid 2009, 42–45; see also Bomgardner 2015.

<sup>13</sup> Di Vita-Evrard 1965.

main gallery B-B interconnecting the circus-amphitheater complex. In a similar fashion, the eastern major-axis tunnel JJ gave access to the eastern gallery C-C that interconnected the circus-amphitheater complex.<sup>14</sup> The circumambulatory gallery AA could be reached from either of the major-axis galleries (via tunnels T-T and J-J).

R. next describes the multiple service doors (*portae posticae*) around the periphery of the arena (50–55).<sup>15</sup> These are remarkably well preserved and provide much valuable information about the mechanics of how animals were loaded and released into the arena. There were 10 such service doors. At the rear of these cells there are still preserved slits, open from the *podium* above. One possible interpretation is that these may have been used to toss bundles of burning straw down into the cell to force the animal to enter the arena. George Jennison, a keen student of both classical antiquity and animal behavior, as Superintendent of the Belle Vue Zoological Gardens, Manchester, related how an animal's natural reaction to the noise and glaring sunlight of the arena would be to cower in the darkness of its cell beneath the *podium*. Only a greater fear, that of fire, could force it to come out into the arena.<sup>16</sup>

The next section (55–66) deals with the series of nine *vomitoria* (i.e., interconnecting passageways) that led from the arena to the annular *ambulacrum* (AA).<sup>17</sup> Service door P (described above) did not connect with the annular *ambulacrum* AA. Instead it was reconfigured to give access to the major-axis entranceway TT and also the *carcer* (a secure chamber for storage and eventual release into the arena of a wild animal) P'.<sup>18</sup> Galleria A gave exclusive access to a loggia or *tribunal* on the *podium* via a doorway (A') on the western wall of the galleria.<sup>19</sup> Galleria A ended in a vertical shaft (R. calls it a "*pozzo*"), which ended in the paving of the *cella* of the small temple atop the *summa cavea*. R. describes this square-section vertical shaft, lined with *opus caementicium*, as a kind of conduit. Most of these galleries led exclusively to the annular *ambulacrum* AA.

R. then analyses the series of four *carceres* (66–75). These *carceres* are positioned on either side of the major-axis entrances (JJ and TT) and are characterized by their reduced dimensions. Often such *carceres* were directly adjacent to the major-axis entrances so that they interconnected with the main entryways themselves to enable ease of access and loading of animals.<sup>20</sup> Here at Lepcis Magna, only *carcer* P' could be accessed directly from the

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<sup>14</sup> This is certain although gallery C-C has not been completely cleared. Both ends of the gallery have been excavated, making this a safe assumption.

<sup>15</sup> For the definition of these terms, see Hufschmid 2009, *s.v.* "*porta postica*", 43–45.

<sup>16</sup> Jennison 2005, 159–60. Hahn (2004, 97) relates how torches of burning pitch and tow were thrown into cells to bring the lions out of their cages in the Royal Menagerie, Lions' Tower, Tower of London in 1605. R. interprets these slots as part of the mechanism for the raising of the hatches of the *carceres*.

<sup>17</sup> See plans on 24–25 for their positioning around the arena.

<sup>18</sup> See fig. 53a–b on 58.

<sup>19</sup> See fig. 55b on 59.

<sup>20</sup> Other examples include Lambaesis, Carmona, Luceria, Mérida, Thuburbo Maius, Saintes, Sabratha, and Lutetia Parisiorum (R. at 67–68, who cites Golvin 1988, 329–30, tableau 41). Golvin identifies two categories of *carcer*: 1) those that can only be accessed from the arena itself, thus denying the ability to resupply them with animals during a spectacle; and 2) those that can be resupplied during the spectacle, from either a minor axis tunnel, a major axis tunnel, or an annular ambulatory service gallery beneath the *podium* of an amphitheater. For the Carmona amphitheater, see now the excellent monograph by Jiménez-Hernández 2017. For the Mérida amphitheater, see now the excellent monograph by Durán Cabello 2004.

main entrance JJ.<sup>21</sup> The remaining *carceres* are separated from the main entrances by *vomitioria*.<sup>22</sup> One of their defining features is the method of providing access and egress from these chambers. Each one is fitted with a sliding grill that was operated manually by an attendant on the steps of the *podium* above. R. points out that, since *carceres* N', E', and F' have no connection to the exterior of the arena, they must have been loaded with animals only at times other than those during which the spectacles were taking place. Only *carcer* P' could be loaded with additional animals during such a spectacle.<sup>23</sup>

The annular *ambulacrum* AA (75–76) completely encircles the arena, at roughly 10 m from the arena wall and lying beneath the *cavea*. It interconnects with the arena itself via 10 vaulted galleries. This annular *ambulacrum* AA forms the chief nexus for intercommunications, both within the amphitheater and as interconnection with the circus complex to the north. This *ambulacrum* also gave access to a series of *vomitioria* that provided spectators with access to both the *podium* and the *ima cavea*.

Within the exterior wall of annular *ambulacrum* AA there are a series of eight niches (76–80), numbered 1 to 8, and there is one on the northern wall of the western major-axis entrance tunnel (number 9).<sup>24</sup> These niches contained stele of a religious nature.<sup>25</sup> Ginette Di Vita-Evrard and Luisa Musso (317–24) provide a catalogue and analysis of these stele. They identify one stele (inv. no. 631 and fig. 430 on 319) as a Victory with a dedicatory inscription to *Nemesis Augusta* by the *munerarius* M. Iunius Crescens. Stele (inv. no. 634 and fig. 434 on 322) is identified as a fragmentary figure of Apollo dedicated by [—]Junius Rogatianus Adelfiu[s].<sup>26</sup> Di Vita-Evrard and Musso identify another stele (inv. no. 636 and fig. 429 on 318) as a relief of a griffin with dedicatory inscription to *Nemesis Augusta*, again by the *munerarius* M. Iunius Crescens.<sup>27</sup>

The two major unroofed passageways (80–87), B-B (on the west) and C-C (on the east), that linked the amphitheater with the circus to the north, are described and analyzed next. R. identifies these passages as the route taken by the ceremonial procession (*pompa*) that initiated each spectacle. They were dug into the substrate of the dune and then solidified by means of an *opus africanum* revetment of both sides. The western passage B-B has a covered passage, V-V, opening to the east that connects with the annular *ambulacrum* AA as well as an excavated chamber YY at its southern extremity. The eastern

<sup>21</sup> R. warns that the dimensions of this *carcer* may not be those of its original state due to evidence of extensive restoration work done to it.

<sup>22</sup> *Vomitiorium* F separates *carcer* F' from main entrance J-J; *vomitiorium* D separates *carcer* E' from main entrance J-J; *vomitiorium* N separates *carcer* N' from main entrance T-T.

<sup>23</sup> See fig. 53a–b on 58. R. notes that a similar method of closure for these *carceres* can also be found at Mactar, citing Bourgeois 1979–80. Montali 2015, 102–5 and nn. 299–300 with a very detailed list of amphitheaters with *carceres*.

<sup>24</sup> Refer to *Tavola I fuori testo* for the location of these niches.

<sup>25</sup> Figs. 101–3 on 82 present a possible reconstruction of the religious statues within niches 8 and 4, using stele recovered during excavation (fig. 101 = Inv. no. 634 [for niche 8], fig. 102 = inv. no. 631 [also for niche 8], and fig. 103 = inv. no. 636 [for niche 4]).

<sup>26</sup> *Rogatianus* is further identified as a member of the *sodalitas* of the *Kaneiani*, whose identifying logos include a bundle of reeds and the Roman numeral II. This iconography suggests an organization like that of the numerous organizations of professional *venatores* elsewhere in North Africa discovered by A. Beschouch. For a recent overview of this North African societal phenomenon, see Vismara 2007.

<sup>27</sup> Dated on stylistic grounds to the Antonine era.

passage C-C ends to the south with two excavated chambers, ZZ (on the east) and XX (to the south). This passage has not been completely cleared, and it may be possible that a passage on its western side interconnected with a partially cleared passage (southeast of H, not labelled on the architectural plans) that led to the annular *ambulacrum* AA. Spanning passage B-B above the vaulted gallery V-V is a bridge leading to the *summa cavea*. Humphrey has proposed that the western unroofed passageway B-B, ornamented with freestanding columns, was initially the major entrance to the amphitheater from the coastal road before the circus was extended.<sup>28</sup>

R. (88–94) next deals with the series of chambers off these unroofed passageways (B-B and C-C). Chamber YY lies at the southern end of B-B and is covered by a barrel vault. There are five niches, two in each of the lateral walls and one in the center of the bottom wall of the chamber (slightly smaller but deeper than the rest). There is a large quantity of graffiti on the walls of this chamber. Di Vita proposes that it was a chapel, a *sacellum* or a place for gladiators to assemble.<sup>29</sup> The barrel-vaulted Chamber ZZ lies at the eastern extremity of major entrance TT after it crosses the unroofed C-C. It was partly dug out of the rocky dune (the interior portion) and partly constructed (that portion nearest the entry) of pseudoisodomic masonry. A series of eight modillions of limestone from Ras el-Hammam, four on each lateral wall, survive. Di Vita interpreted these modillions as supports for an upper, wooden floor and thus the chamber as a two-level space for the containment and management of caged beasts prior to their exhibition in the arena.<sup>30</sup> R., however, quite rightly points out the difficulties with this explanation and deduces that there is insufficient evidence upon which to base an interpretation of the function of this chamber.<sup>31</sup> Chamber XX lies at the southern extremity of unroofed passage C-C, dug out of the natural rock with a roughly plastered vaulted ceiling. On both sides of this chamber there are a series of deep gouges that R. speculates may have been caused by the violent removal of metallic or wooden bars. According to Di Vita, this chamber was used to hold live animals by means of a type of closure system that he called “*vano a boxes*”; that is, the use of bars to separate compartments for containing the animals.<sup>32</sup> On the white plaster-coated walls of XX, there are painted scenes of animals: on the western wall, a bird (94, fig. 115), a cervid being attacked by a feline (94, fig. 116.a), an elephant (or animal of similar large size); on the end wall, a poorly preserved image of an animal with slender feet and a long neck, perhaps a giraffe or a camel. There are also two Christian monograms on the walls.<sup>33</sup> Although there are excellent reconstruction drawings of other features of this

<sup>28</sup> Humphrey 1986, 54–55. Based on building materials for the circus, Humphrey postulates an initial post-Hadrianic (r. 117–138 CE) construction phase, followed by a phase of reconstruction and extension to the west (dated by inscription to 161–162 CE: Di Vita-Evrard 1965). The extension to the west would have made passage B-B redundant as the major entrance from the coastal highway. The use of column drums identical to those still found in the western passage B-B as bases for the herms of the later phase of the *carceres* of the circus may support this if they were indeed reused from the passage.

<sup>29</sup> Di Vita 1966, 86 n. 309.

<sup>30</sup> Di Vita 1965; Di Vita 1966, 87–88, n. 312, tav. XXIXc.

<sup>31</sup> R. (91 n. 150) points out the problems of reconstructing a wooden upper floor level based on the shape and rather irregular distribution of the modillions.

<sup>32</sup> Di Vita 1966, 87, tavv. XXIXb, XXIXc; illustrated by Hufschmid 2009, 448–51, figs. 206–10.

<sup>33</sup> Discussed by Pellegrino, 260 fig. 328. Also on the western wall of X-X Pellegrino identifies an inscribed Greek name: ΚΟΛΑ.

monument elsewhere in the text, it would have been helpful for the reader if at least a conjectural reconstruction of chambers XX and YY had been included here.

The following sections (94–154) analyze the *cavea* and its constituent parts. The *cavea* consists of three *maeniana* (vertical blocks of seating) with an additional higher six tiers of seating on the southern side, adjacent to the small temple. Four *praecinctions* (horizontal circulation paths) separate these vertical zones: K1 (a narrow service path directly behind the *pluteus*<sup>34</sup>), K2 (separating the *podium* from the *ima cavea*), K3 (separating the *ima cavea* from the *media cavea*), and K5 (separating the *media cavea* from the *summa cavea*). Rather confusingly, in my opinion, K4 is a vaulted *ambulacrum* running beneath the top of the *media cavea* (bounded on the exterior by wall M1, on the northern part of the *cavea*). I would have preferred a different system of labelling for the *praecinctions* (K1, K2, K3, K5) and this upper *ambulacrum* (K4). Each *maenianum* had 16 stairways, although there are 11 in the *media cavea*, as five in the northern half have not survived. Two vaulted *ambulacra* beneath the *cavea* provided additional circulation capacity. It was also possible for spectators to leave the amphitheater via vaulted *ambulacrum* K4 and proceed via connecting tunnels to the circus to the north. Most of the seats themselves are covered by inscribed marks, either signs or letters in Neo-Punic or Latin letters, singly or in pairs. The Latin lettering is concentrated mainly in the *podium* and on the inside of the *pluteus* that separated the *podium* from *praecinatio* K2, although some are also found on the seating in the southern half of the *ima cavea*.

The service corridor K1 is situated between the *podium* wall and its three tiers of seating. R. interprets it as being mainly for the use of arena personnel, who would lift the sliding hatches of the four *carceres* lying beneath the *podium* itself and thus introduce animals into the arena. A *pluteus* with an additional system of supports for netting projecting over the arena provided a protective barrier for this area of the *podium*.<sup>35</sup> Spectators would have taken their seats here mainly by emerging from *ambulacrum* AA via the numerous *vomitoria* leading to *praecinatio* K2.

The main *praecinctions* (K2, K3, K5) of the *cavea* are next described (97–99). K2, bounded on the exterior by a *pluteus*, separates the *ima* from the *media cavea*.<sup>36</sup> This *pluteus* has large letters inscribed on its inner face, which R. interprets sensibly as indicators of seating allocations (*loca*). K2 and K3 share a common feature. They both have a series of three flanking (bidirectional) steps leading to each stairway (*scalaria*) of the *maenianum* above. These steps completely block each *praecinatio*. This was necessary because the first tread of each of these stairways was some 1.0–1.1 m higher than the *praecinatio* itself. K2 had another, unique feature. The lowest of these flanking steps contained holes in their centers leading to a drain that carried off rainwater from the *praecinatio*.<sup>37</sup> In the northern part of the *media cavea*, only the two or three lowest tiers of seating have been reconstructed. Only the central portion of the *summa cavea* with its *sacellum*

<sup>34</sup> R. (95) says K1 is directly behind the *balteus*. However, as Hufschmid (2009, 31 and 39) points out, a *balteus* is synonymous with a *praecinatio*. I think she meant to say directly behind the *pluteus* of the *podium* wall.

<sup>35</sup> As illustrated in fig. 83b on 74.

<sup>36</sup> I prefer to use Hufschmid's term *pluteus* rather than R.'s term "*parapetto*" (=parapet). See Hufschmid 2009, s.v. "*pluteus*", 39.

<sup>37</sup> R. (98) emphasizes that this is the only extant system to channel rainwater from this monument.



(shrine) has been the object of restoration and reconstruction. K5 provided horizontal circulation atop the *summa cavea*. On the basis of the layout of the *vomitoria* from K3 to K5, R. thinks that there was a second phase of construction at the south sector of K5. The *pluteus* bordering the *media cavea* is missing, and an additional block was added to the wall defining the lower limit of the *summa cavea*. The region of K5 immediately in front of the shrine was given a special treatment, an empty space without paving bounded by the *pluteus*. The *summa cavea* had six low seating tiers topped by the colonnade of the amphitheater.

R. next treats the seating and the stairways (*scalaria*) of the *cavea* (99–102). The stairways divide the seating into wedges (*cunei*): the *podium* is divided into eight *cunei* by eight stairways; the *ima* and *media cavea* are divided into 16 *cunei* by 16 stairways. Each *cuneus* of the *ima* and *media cavea* could in theory hold between 400 to 500 spectators, with those of the *podium* holding roughly half this number.<sup>38</sup> The seating tiers are composed of limestone from the Ras el-Hammam quarry, largely grayish white or dark yellow, sometimes with reddish areas, particularly in the upper tiers of the *media cavea*. The *podium* seating is roughly 2.10 m above the level of the arena and is in three tiers. All the seating in this zone carried inscriptions reserving these seats for preeminent people.<sup>39</sup>

In the middle of the southern portion of the *podium* is one of the two tribunals. It had two rows of seating that were only half the height of the rest of the seats. R. justifiably concludes that these were designed to accommodate the special seats (*subsellia*) of the VIPs who occupied this privileged zone. This tribunal could be reached directly from the arena via gallery A and the side chamber A1, or alternately from the annular *ambulacrum* AA.

The *ima cavea* had 11 rows, of which only 10 can be assured use as seating; the *media cavea* had 10 rows, of which only nine are certain to have been used for seating.<sup>40</sup> The *summa cavea*, in the reconstructed portions, had six tiers that, as R. rightly points out, were too low to be used for seating. R. postulates there might have been wooden bleachers in this sector, or perhaps spectators stood, like on the terraces in soccer stadiums.

The next section (102–34) surveys the 24 *vomitoria* of the *cavea* in detail and includes numerous high-quality photographs, plans, and section drawings. A study of the uppermost levels of the *cavea* as well as the interconnecting passageways between the amphitheater and the circus (128–34) follows. This section once again includes an excellent array of high-quality photographs and a section drawing (*vomitorium* II). R. sensibly suggests that the cuneiform vaulting of the *vomitoria* servicing *ambulacrum* K4 employed reused materials in a later phase of construction intended to interconnect the amphitheater and circus.

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<sup>38</sup> R. (99 n. 164) citing Golvin 1988, 375. But see also Golvin 1988, tableaux 54 and 55 on 376–77.

<sup>39</sup> These inscriptions are analyzed by Pellegrino, *infra* 213–30. R. (100 n. 166) corrects misconceptions about the depth of seating between the *podium* and the other *maeniana*. She points out that all the seating has the same depth of 68–69 cm x 49–50 cm high.

<sup>40</sup> R. points out that some authors assert that there were 11 rows of seating in the *media cavea*, but she points out that the lowest tier had to be used for circulation of the spectators to their seats and the highest tier formed part of the *praecinctio*.

The viaduct over the open-air passage B-B on the western side of the amphitheater is the next subject of study (134–35). Based on architectural remains beneath this structure, R. reconstructs parapets in whitish-gray Ras el-Hammam limestone on each side of the viaduct, a necessary feature for spectator safety.<sup>41</sup> R. records numerous architectural elements that have been reused from the Temple of Rome and Augustus from the Old Forum area in the vicinity of this structure.<sup>42</sup> R., following the earlier analysis of this viaduct by Di Vita, reconstructs a phase of ornamentation to the northern sides of the substructures of the bridge, making it probable that this was the major entry point to the amphitheater from the coastal highway. With the extension of the circus (161–162 CE), this access point would have been severely blocked from the north and thus would have ceased to be a major point of entry for the amphitheater. Indeed, R. proposes that the entrance to passage V-V and the bridge itself were blocked off by architectural rubble in its latest phase.

A review of the exterior wall M1 (135–37, 206–8) follows. This feature forms the exterior façade of the amphitheater, composed of yellowish limestone rusticated *opus quadratum*.<sup>43</sup> Today this wall is only visible on the northern side of the amphitheater; the southern side is buried beneath a thick layer of soil and building debris. To establish the total dimensions of the amphitheater, two excavation trenches were investigated on the southern periphery of the structure: trench Beta, on the southwestern side of M1, and trench Delta, on the southern side of M1. Three courses of rusticated *opus quadratum* were revealed as the remains of wall M1 in Trench Beta. Trench Delta revealed a single layer of *opus quadratum*. The remains of a modern drain and the tracks of the “*decauville*” (tracks for the removal of spoil on rail cars) were also revealed. R. reasonably postulates that these were associated with the military fortifications of the Italian forces in the early part of the 20th c., located immediately to the south of the amphitheater.<sup>44</sup>

The northern portion of wall M1 has three courses of *opus quadratum* over a projecting foundation.<sup>45</sup> The remains of four flanking external stairways, like those at the Pompeii amphitheater, gird the exterior of wall M1.<sup>46</sup> R. reconstructs at least five external stairways on this side of the structure. In addition to these major access routes to the top of the *cavea*, there were also two smaller sets of three stairs leading to entries for access to K5.<sup>47</sup>

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<sup>41</sup> Mahler (2006, 229 n. 728) dates a molding on the supporting piers of this structure to the second half of the 1st c. CE.

<sup>42</sup> The temple dates to the Tiberian era (r. 14–37 CE): Livadiotti and Rocco 2005, 167–98, esp. 206–7. The limestone columns of this temple were available for reuse from the third quarter of the 2nd c. CE: Romanelli 1925, 132. Kenrick (2009, 112) records that the temple construction was completed between 14 and 19 CE and its freestanding limestone columns were replaced by marble ones in the 2nd c. CE.

<sup>43</sup> R. remarks that this type of stonework was also used in the *podium* and cites similar rusticated *opus quadratum* in the façades of the theaters and amphitheaters at Verona, Pola, Mérida, Lecce, and Aosta.

<sup>44</sup> Perhaps the *decauville* was part of an earlier phase of excavations.

<sup>45</sup> The module used here appears to be the Punic cubit.

<sup>46</sup> The fact that their outer retaining structures were of *opus caementicium* should indicate that they date to the Hadrianic era (r. 117–138 CE) or later, based on the history of construction techniques at Lepcis Magna. See Humphrey 1986, 54.

<sup>47</sup> R. points out that the locations of these two small stairways lie along a line parallel to the main axis of the circus.

The uppermost elements of the amphitheater are next examined: the *summa cavea* (137–40), the colonnade (140–49), the *sacellum* (149–53), and the shaft (“*il pozzo*”) connecting the *sacellum* with the lowest levels of the southern side of the *cavea* (153–54).

The *summa cavea* consists of the zone between the outer wall of the *praecinctio* K5 and the outermost wall M1. Today this region only exists in the entirely reconstructed portion of the central southern part of the *cavea* lying directly to the west of the *sacellum*. A series of nine *vomitoria* led from the ground level outside the amphitheater to this sector of the *cavea*. The seating in this sector is less wide and high than elsewhere. R. points out that it must have been used for standing or perhaps as part of a wooden bleacher structural element. Only six rows of seating have been reconstructed. A gangway ran along the bottom of this sector, while a wide step crowned it, forming the foundation for the colonnade.

The section about the colonnade and its components (140–49) reviews the surviving evidence for this important feature. R. points out that, due to its extensive restoration, the original positioning of the colonnade itself is uncertain. Traces of the original incised setting-out line for the orientation of the column bases still exist (figs. 196, 197, 142). An extensive analysis of the columns themselves follows, including a pie chart of the types of limestone used in the various column components, profiles, photos, and computer-generated reconstructions of the entire Doric semi columns (e.g., fig. 202, 144).

The *sacellum* in the *summa cavea* (149–53) is slightly off-center of the southern side of the seating and is an important feature of this monument. It consists of a *pronaos* and *cella*. A chamber was added to the rear of the *cella*. Based on the statue of Ephesian Artemis found within the *cella*, the shrine was dedicated to this goddess. R. points out the divergence of opinions about the dating of this *sacellum*, but, through her analysis of the alignment of the *sacellum*, amphitheater, and circus, she has revealed that the alignment of the *sacellum* is perpendicular to the alignment of the circus, and they were thus designed to form a “unitary complex.” This evidence gives credence to those theories about the dating of the *sacellum* that bring it firmly into line with that of the construction of the circus (161–162 CE). The minor excavations in this area undertaken by Mahgiub, Chighine, and Madaro<sup>48</sup> revealed two phases of construction for the *sacellum*: Phase I, with a normal layout of the *summa cavea* beneath the future *sacellum* including a *vomitrium*, later demolished for Phase II, when the *sacellum* was built. Within the *cella* was also uncovered a concrete-lined shaft (“*pozzo*”) descending from the *cella* to the back of gallery A and a small room where the small statuette of Ephesian Artemis was found. This shaft and room have been interpreted as an integral part of the cult, with the room forming a shrine for the personnel of the arena and the later shaft above being for the disposal of sacrificial material from the *sacellum*. An altar dedicated to Nemesis was found at the entrance to gallery A.

Chapter IV (155–76), “Conclusive Evaluations and Considerations,” consists of sections on a) the materials used (155–56), b) construction techniques and characteristics (156–57), c) the statics of the building (157), d) dimensions and metrology (158–62), e) the “so-called” dissymmetry (162–63), f) the capacity of the *cavea* and its inclination (163–64), g) circulation and routes (164–65), h) the water supply and water runoff (165–66), i) systems for the closure of accesses (166), l) architectural decoration and decorative apparatus (166–68), m) the

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<sup>48</sup> Mahgiub et al. 1976–1977.

inscriptions on the seating of the *cavea* (168), and n) distribution, recurrence, and function of the incised markings (169–76).

The building materials consisted mainly of two types of limestone, one travertine-like, the other yellowish, as well as Cipollino and Proconnesian marble (on the revetment of the *podium* wall and a series of Corinthian capitals). C. Chiesa, who has studied the types of building stone in Tripolitania, designates the first type of limestone “Chiesa Type II” and the second, “Chiesa Type I.”<sup>49</sup> Both types were used in the amphitheater and the circus, and it is reasonable to assume that Type II was material reused from the Temple of Rome and Augustus in the Old Forum.

The chief building techniques employed were pseudoisodomic *opus quadratum* without mortar (in the *podium* wall and wall M1), *opus africanum* (in the open-air entrances B-B and C-C) and *opus caementicium* (throughout, but in vaulting always with squared blocks or alongside *opus africanum* in entrances B-B and C-C).

The layout and metrology of the amphitheater are examined in detail. The layout corresponds to two semicircles that overlap (v. fig. 215, 161), whose centers lie along the major axis of the arena; the radii of these circles produce the 40 *scalaria* (stairways) in the *cavea*. The Punic cubit (here corresponding to 51.0–51.5 cm) was used throughout the construction of the amphitheater. The arena (57.25 x 46.97 m) is laid out on a 56 x 46 module of 2 Punic cubits (1.02 m). The overall dimensions of the amphitheater are 109.67 x 99.39 m or 108 x 98 modules.

An extremely detailed estimation of the seating capacity (163–64) of approximately 17,000 spectators follows.<sup>50</sup> R. produces an inclination for the *cavea* from the level of the arena of 39°.<sup>51</sup> R. points out that spectator circulation was aided by a series of symbols, letters, and numbers either engraved or painted upon architraves and entries to the *vomitoria*, and along the inside of the *praecinctions*. Symbols on the seating indicated individually assigned *loca* (places), largely in Latin with fewer Greek and Neo-Punic inscriptions (168–76).<sup>52</sup> An analysis of the various methods of decorating the *podium* wall (166–68), including several layers of painted plaster with a final revetment in Proconnesian and Cipollino marble, follows.

Chapter V (177–82) deals with the phases of construction of this monument. R. dates the initial phase of construction to the mid-1st c. CE, but notes that its dedicatory inscription (56 CE) may mark only the final stage of regularization of the monument, which may have seen *munera* before this date. The second phase of construction (second half of the 2nd

<sup>49</sup> Chiesa 1949.

<sup>50</sup> This estimate corresponds quite well to my own estimation of the seating capacity of 16,000 (roughly 6% error).

<sup>51</sup> R. estimates the inclination of the *summa cavea* (as reconstructed) at 26° and that of the *tribunal* as 22°. R. notes that the relatively low inclination of the *summa cavea* would require either wooden bleachers or standing spectators for a reasonable view of the spectacle below. She concludes that this zone would have been primarily used for spectator circulation. This seems a questionable conclusion.

<sup>52</sup> The marks indicating individual *loca adsignata* (assigned seats) were made upon the horizontal portion of the *gradus*; all other signs, letters and numbers were placed upon the vertical portion of the *gradus*. These latter were identified as principally quarry and masons' marks. Sometimes letters or symbols were carved upon both the seat and its backing slab.

c. CE: post Hadrianic era) marked a major alteration into an integrated amphitheatral-circus complex that incorporated extensive reuse of the material from the Temple of Rome and Augustus located in the Foro Vecchio.<sup>53</sup> This phase probably entailed the installation of the arena's subterranean structures, the installation of the colonnade atop the monument, the building of the *sacellum*, and extensive modifications to the upper areas of the northern *cavea*. The *podium* wall was also modified, with the addition of blocks of limestone to its top with holes for a protective netting system. The third phase of construction (first decades of the 3rd c. CE) saw the addition of at least five external double-ramped stairways to the exterior façade of the north side of the *cavea*, the modification or restoration of the *sacellum*, the positioning of the colonnade atop the outer wall of K5, and the revetment of the *podium* wall with slabs of white and Cipollino marble. The fourth phase of construction (first half of the 4th c. CE) witnessed the addition of inscriptions to the seating of the eastern *podium*, testifying to the continued use of the monument for spectacles. The final phase (*terminus post quem* of 365 CE<sup>54</sup>) involved alterations that limited access to the monument as well as the addition of structures that could be identified as defensive towers. Other indications, for example, the insertion of secondary floor levels in chambers, would suggest that the amphitheater was used for squatter occupation in a defensible fortified habitat (mid-5th c. CE).

Chapter VI (183–92) lists a series of proposals for the reconstruction and conservation of the monument. These include the protective system of netting overhanging the *podium* wall to a height of no more than 1.00 m, several proposals for the positioning and composition of the colonnade atop the structure, an attempt to reconstruct the colonnade from its fragmentary surviving parts, several proposals for the reconstruction of the *sacellum*, and a series of notes concerning the future conservation of this monument. The series of alternative 3D reconstructions of the colonnade and the *sacellum* are extremely impressive (figs. 230–33 and 235–37). The series of 3D reconstructions of the various sectors of the *cavea* (figs. 238–40) are most helpful in elucidating patterns of spectator circulation.

A detailed study and catalogue of architectural members is covered in Chapter VII (193–210). These are divided into two classes: 1) those that are part of the structure of the amphitheater (193–201) and 2) those that are not (201–6). Among the architectural members of the amphitheater are blocks belonging to the main eastern entrance to the arena, the so-called *porta Libitinensis*, elements belonging to the main western entrance to the arena, the so-called *porta Triumphalis*, entablature elements probably belonging to the elevation of the chapel in the *summa cavea*, including blocks of the architrave, elements of the cornice, elements of the architrave, blocks of the cornice, elements of the portal, blocks with various types of grooves, rebates, and tenons, and a small shrine. Among the elements not pertaining to the amphitheater are Ionic and Corinthian capitals and fragments of column shafts. A short appendix (206–10) briefly summarizes the results of the limited *scavi* undertaken by Ricciardi's team. The photographs and line drawings of profiles of these architectural

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<sup>53</sup> The dismantling of this temple is reckoned to have taken place between 150 and 175 CE based on the reuse of four of its columns in the interconnecting passage between the amphitheater and the circus, which was dedicated in 162 CE. Liviadotti and Rocco 2005, 165–308, esp. 252 and n. 215.

<sup>54</sup> Antonino Di Vita thinks that the earthquake of 365 CE would have damaged the amphitheater so severely that it ceased to function as a venue for spectacles. See now Fentress and Wilson 2021 for a recent review of all known North African earthquakes. They assess the quake that struck Lepcis Magna as occurring shortly after 364–367 CE (134).

members are of a good quality. Of particular interest is the theoretical reconstruction system for the support of the masts for the *velum* (awnings) by D. Sforzini (198–99 and fig. 255).

The rest of the monograph consists of a collection of individual contributions from allied fields of study.<sup>55</sup> Angelo Pellegrino has provided a penetrating analysis (213–57) of the Greek and Latin inscriptions found in this monument, as well as a study of the graffiti and painted figures on the walls (259–62). M. G. Amadasi Guzzo has contributed a study of the Neo-Punic writing at Lepcis and the incised signs on the architectural members of the amphitheater (263–73) based upon the preliminary work of her grandfather, G. Levi Della Vida. D. Piacentini has contributed a thorough analysis of the letters and symbols on the architectural members of the amphitheater (275–316). These include an array of Neo-Punic and cursive Punic letters and symbols such as the double-headed axe, the caduceus, and the sign of Tanit. G. Di Vita-Evrard and L. Musso provide a study of the votive reliefs of the amphitheater (317–24). A. Pellegrino also provides a survey of the sculptural elements found in the amphitheater (325–28). Finally, S. Forti contributes an analysis of the terracotta oil lamps (329–39) recovered during the excavations.

Pellegrino's epigraphic survey of the inscriptions found in the context of the amphitheater are especially valuable. Until the publication of the volume(s) of the *Epigrafia anfiteatrale dell'Occidente romano* dealing with North Africa, this contribution will serve as a resource for researchers in this field. The studies of the Neo-Punic, Libyan, and Punic elements of the epigraphy of this monument add further context to the vibrant continuity of Lepcis Magna's Punic and Berber/Libyan heritage. The analysis of the votive reliefs provides yet more evidence for the cult of Nemesis, Mars, and Artemis within the context of the amphitheater.

Overall, this monograph supplies a much-needed study of this uniquely important monument and does so admirably.

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<sup>55</sup> Antonio Ibba has published a most useful review and update of the epigraphical aspects of these sections in Ricciardi et al. 2018.

## A remarkable achievement

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