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THE ROMAN AMPHITHEATRE OF CARTAGENA

José Pérez Ballester – M. Carmen Berrocal Caparrós – Francisco Fernández Matallana

The amphitheatre in the historical memory of Cartagena.¹

The amphitheatre has been present as a building in Cartagena during most of its history, being known since ancient times. After its abandonment those monumental structures remained visible during centuries, arousing many written and graphic references until 1852, when the Roman construction was completely concealed under the Plaza de Toros, the modern *arena* for bull fights. The first written reference to the Roman amphitheatre dates from the 13th century, when the Andalusian poet Al Qartayanni mentioned the presence of the so called “House of the Lions” near Cartagena’s harbour. References to the amphitheatre become more frequent during the 16th century, becoming especially significant when they include the term “antiguones” in order to designate the areas with archaeological remains of the amphitheatre and its surroundings.

During the reign of Philip II Cartagena began to play a noticeable role in Mediterranean politics and was equipped with a defensive wall under the supervision of Juan Bautista Antonelli and under the orders of Valencia’s viceroy or governor Vespasiano de Gonzaga. In order to accomplish the construction project, big quantities of earth had to be removed from the amphitheatre’s proximity. This allowed important discoveries as those described by Fray Gerónimo Hurtado in “Descripción de la Ciudad de Cartagena” (1582). Another source for these discoveries is Francisco de Cascales in “Discurso de la ciudad de Cartagena” (1598). Both authors note the presence of the huge Roman building adjacent to other ancient ruins and even a dock.²

In 1648 the plague befell Cartagena. To bury the victims of the epidemic a mass grave was dug near the amphitheatre in which approximately 6000 corpses were buried. In addition to these minuscule fragments of information numerous plans and drawings of the amphitheatre are known, composed by visitors to Cartagena, administrative technicians in royal service and military architects. These works document carefully many structures which were afterwards converted into the cemetery of the Hospi-

tal Real. The complexity of the plan and elevation preserved until the 18th century can be seen in drawings executed by Ascencio de Morales (1751) which depict most of the complex and the *cavea* and two anonymous illustrations from the Velázquez collection (second half of the 18th century).³

An anonymous drawing is noteworthy for its extreme precision. It has been preserved in the National Archaeological Museum of Madrid and it is named as “Representación del Amphiteatro y Cárcel, que la antigüedad había en Cartagena, según manifiestan sus ruinas, bosquejadas en este año 1751” (Fig. 1). In this drawing the structures of the amphitheatre are precisely outlined. They are also mentioned in a document written by Nicolás de Montanaro (1738), in which the author describes the excavations that took place under the supervision of Friar Francisco López del Castillo, who tried to build a chapel devoted to martyrs of Cartagena, which did not prosper at all.⁴

On the other hand, the important role of Cartagena in the defensive strategies of the Bourbon dynasty beginning in the middle of the 18th century boosted the construction of massive fortifications and structures in the area where the Roman amphitheatre is situated. These massive construction-works drastically changed the urban appearance of the sector in question, as for example did the Hospital Real (1749–1762) or the Cuartel de Infantería (1783–1796). Other important transformations in the same area were the use of the amphitheatre as a cemetery for the Hospital Real de Marina (1766–1786) or the construction of the small “anfiteatro de Autopsias” (1768), right next to the aforementioned Hospital. (Fig. 2)

Not before the 19th century two most determinant modifications of the amphitheatre and its surroundings took place: the construction of the Plaza de Toros (1854) and the opening of Gisbert Street (1878–1893). The first completely covered the ancient amphitheatre, whereas the second divided the eastern slope of the Cerro de la Concepción, splitting the historical landscape until today.

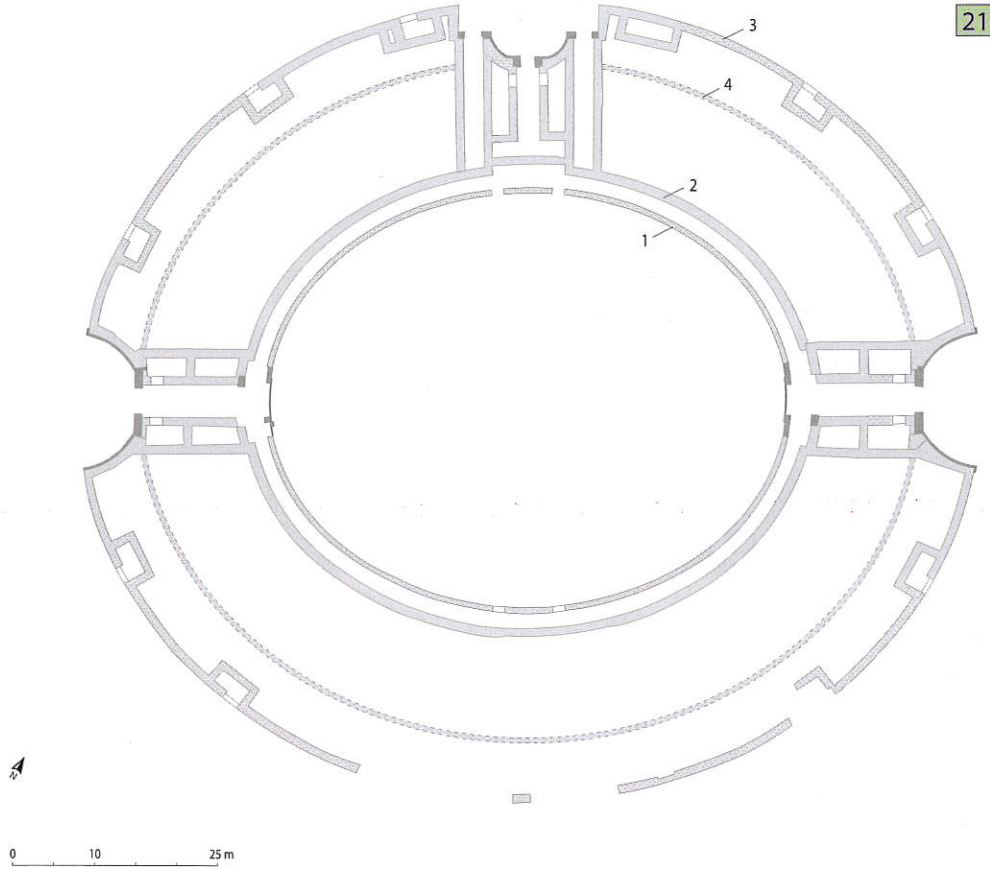
1 This work is part of the project HAR2012-32488 that includes funding of the FEDER.

2 Rubio Paredes 1983, 882; Beltrán 1948, 211; Ramallo 1989, 9.

3 Rubio Paredes 1977, figs. 5–6

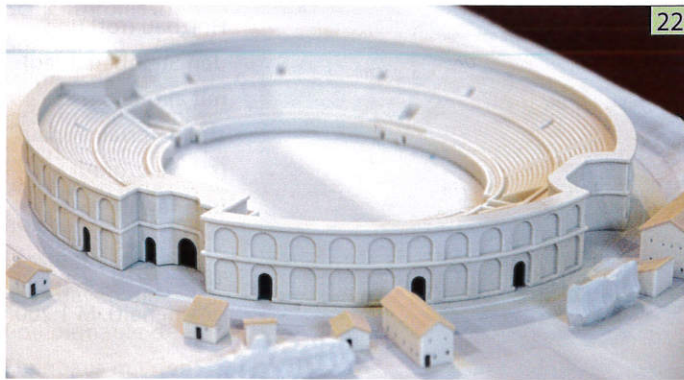
4 Rubio Paredes 1977; Pérez Ballester et al. 1994, 95–96; Rubio Paredes 2009, 44–45. 68–69.

Abb. 21
 Amphitheater Vindonissa/Windisch. Rekonstruierter Grundrissplan des Steinbaus.
 1 = Podiumsmauer/
 Arenaumfassung,
 2 = sog. Couloirmauer,
 3 = Umfassungsmauer,
 4 = sog. Scheitelmauer
 (rekonstruiert).
 M 1:800.



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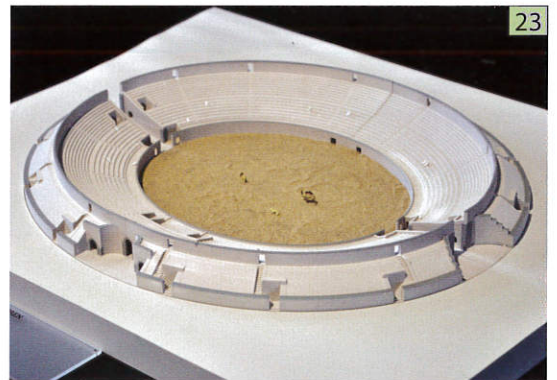
Abb. 22
 Amphitheater Vindonissa/Windisch. Alter Rekonstruktionsvorschlag Steinbau (zurückgehend auf Fellmann 1952). 3D-Plot, Bestandteil des Gesamtmodells des Legionslagers von Vindonissa (M 1:500), ausgestellt im Vindonissa-Museum in Brugg, Kanton Aargau.



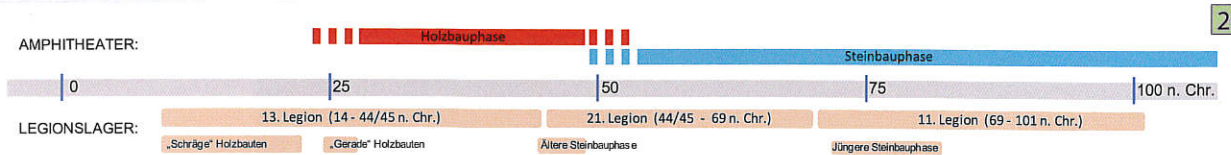
22

Abb. 23
 Amphitheater Vindonissa/Windisch. Neuer Rekonstruktionsvorschlag Steinbau (2009). 3D-Plot (M 1:200), ausgestellt im Vindonissa-Museum in Brugg, Kanton Aargau.

Abb. 24
 Amphitheater Vindonissa/Windisch. Schematische Darstellung der chronologischen Abfolge von Holz- und Steinbau unter Einbezug der wichtigsten baulichen Entwicklungen und der Besetzungen des Legionslagers.



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The amphitheatre. Archaeological interventions in the 20th century, the recuperation project of the Roman amphitheatre and the superimposed complex of the Plaza de Toros.

After the complete burial of the amphitheatre during the 19th century, there has been great interest in its recovery. This stimulated several archaeological interventions in the 20th century.⁵ From these interventions, those carried out during the 1960's by Pedro Antonio San Martín Moro in the exterior of the amphitheatre, between the Plaza de Toros and the Hospital de Marina, are most noteworthy. Other interesting interventions were carried out by the Universidad Autónoma de Madrid (1968–75) at the same place. Newer research was supervised by two of the authors of the present article, in collaboration with P. A. San Martín: such as excavations in several parts of the amphitheatre's structures; both inside and outside of the Plaza de Toros, as well as in the Plaza del Hospital.

In all these interventions, the ancient monument was always documented underneath the modern Plaza de Toros, increasing the difficulties both for excavation and for comprehension of the excavated structures. Nevertheless, the Plaza de Toros was closed to the public due to security reasons in 1986 when it was declared as being 'in technical ruin'. Since then its deterioration only accelerated due to the cheap materials it had been constructed from in the 19th century.

During the late 1990s the Plaza de Toros was acquired by the Cartagena city council. This fact is going to inaugurate a new phase in the recovery of the Roman amphitheatre at the beginning of which must stand a debate about any possible way of restoring the monument which at the same time respects the Plaza de Toros. Additionally, it will be necessary to integrate into the concept a monumental precinct dating from the 18th century which is currently used by the Universidad Politécnica de Cartagena. Since then several more archaeological interventions have been carried out in order to check the actual state of the amphitheatre. These will be outlined further below.

In 2009 some of the sections of the Plaza de Toros were selectively demolished as part of a project that aimed at the recovery of the roman building and the preservation of the double ring of the Plaza de Toros, as well as the possibility of creating a museum an-

nexed to it (Fig. 3). Within this context two archaeological interventions were carried out, offering spectacular results (December 2009–January 2010 and January–February 2011). Lacking funds, the project is currently suspended. Until now work has resulted in the publication of more than twenty papers and in conferences and workshops on the amphitheatre and the excavations.

The amphitheatre in the urban plan of Roman Cartago Nova.

The Roman amphitheatre of Cartagena was built on the eastern slope of the Cerro de la Concepción, the hill nearest to the harbor and at the same time the largest of the five hills which constitute the peninsula of Cartago Nova. On the SW-slope of the same hill the Roman theatre is situated close to the forum and other key public structures of the ancient town. The paleotopography of the area of the amphitheatre shows a steep incline; right next to the Cerro de la Concepción a ford/crossing was situated between this hill and Despeñaperros, a hillock that was traversed by several gullies that directly emptied into a cliff-like coastline.

During pre-Roman times the SE sector of this landscape opened to the bay. Here remains of an early settlement were located which dates into the last decades of the 3rd and the 2nd centuries B.C. Some structures found on the natural terraces of the place verify the existence of this early settlement, which, in this area, would relate to a neighborhood specifically dedicated to metallurgical activities. This settlement would have had an orthogonal layout and used the natural terraces for the distribution of the buildings of the neighborhood. The settlement was abandoned during the early 1st century B.C. Traces of later use consist of consecutive layers of land fill (*t.p.q.* of 80/70, 40/30 B.C and 60/70 A.D). The objective of these activities was obviously to create a wide level area on which the amphitheatre (and perhaps other buildings as well) could be constructed.

On the site of Cartago Nova the hilly and constricted topography necessitated to emplace the large amphitheatre on the periphery of the town, and most likely beyond the defensive wall of the city but still very close to it (Fig. 4). In this way it was situated at a considerable distance from the centre of the town. Nevertheless, communication with the forum was provided by the *decumanus maximus* to which the amphitheatre was connected through two secondary *cardines*. These roads have been documen-

5 Jiménez de Cisneros 1903; González Simancas, 1928

ted in recent excavations conducted along the Barrio Universitario. Recent finds seem to indicate that there existed an earlier building which could have belonged to the original urban plan of Carthago Nova.

The Roman amphitheatre of Cartagena. Typology, features, periods, chronology and building materials. (Fig. 5)

Typology

The amphitheatre was built into the slope of the Cerro de la Concepción. The major axis is oriented from SW to NE. Radial walls and vaults are built from *opus caementitium*, covered in most places with *opus vitatum*. The walls were covered by a layer of plaster. The main architectural components – such as pilasters, arches, lintels, mouldings and thresholds – are mainly made of yellowish sandstone and grey limestone of local origin. The archaeological record also shows some adobe structures, belonging to a predecessor amphitheatre.

The hillside of Cerro de la Concepción was dug away for constructing the *ima* and the *media cavea* on both sides of the main axis. Perimeter walls and radial walls supported vaults. These structures were founded on fillings of compacted soil as is also the case in the amphitheatres at Saintes or Tarraco. The SE sector of the building is situated in the lowest sector of the slope. Here the façade rests on a massive ring-wall. Buttresses served to strengthen this wall. They reach between 4 and 7 meters underneath the surface outside the amphitheatre. The *summa cavea* will have been elevated over vaults that were supported by the outer ring of the amphitheatre, the perimetral gallery and the façade, which may have been structured with arcades.

Structures

The Cavea. (Fig. 6)

The *cavea* of the amphitheatre was first documented during the excavations of 2010.⁶ Preserved are the first *maenianum* (*ima cavea*) and a *vomitorium* which opens into the first *praecinctio*. A sector of the *cavea* 8 m long was discovered to the north of the SW access. It shows four clearly defined *gradus* that were built from *opus caementitium*. The covering slabs were missing. A provisional reconstruction of the steps leads to an average width of 75–87 cm and a height of 44–50 cm. The front *gradus* provided a wide space of 1.60 m until the edge of the *podium*.

This area was wide enough (1.10 – 1.30 m) for the emplacement of the *bisellia* for the magistrates or other authorities of the city attending the games. Compared to other examples, the platform seems narrower than in most other cases, where the range is between 1.30 m and 2.20 m⁷.

The first row of seats was built in a different technique: the closest sector to the SW entrance was built over vaults or using compacted earth fills between radial walls (further north). This detail is important, as bleachers built over vaults are documented not earlier than the time of the Julio-Claudian dynasty.⁸ The fill yielded pottery of Republican, Augustan and generally Early Imperial date. Accordingly, it seems appropriate to postulate a date of the construction of the *gradus* during the Neronian-Claudian era, which in turn provides also a date for the construction of the *ima cavea*. The structures were superimposed to a sector of a wall constructed from adobe bricks identical to the one identified in the NW sector, which can be dated into pre-Agustean times (40–30 B.C. aprox.)⁹.

Vomitorium 1 lies north of the SW-entrance and has a length of 6.75 m and a width of 1.46 m. Most probably it was vaulted (Fig. 7). It starts at a rectangular box of stairs. Another rectangular opening was symmetrically located on the southern side of the SE Entrance. These features would have been made of wooden¹⁰ or iron¹¹ stairs, which would bridge the difference in elevation of three metres between the level of the first step at the entrance to the amphitheatre and the first *praecinctio*. Similar structures exist in the amphitheatre of Terni, dated around the beginning of the first century B.C.

The first *praecinctio*, poorly preserved, can be recognised by the existence of a level area to which *vomitorium* 1 leads. The width of it is 1 m, parallel to similar features documented at Carmona, Pompeii, Segóbriga and Verona.¹² The archaeological intervention from 2011 was limited to the end of the SE minor axis where a sector of the *cavea* was found. It also shows mixed construction techniques; it was built on vaults or over compacted earth fills between radial walls, in the centre and both sides of the minor axis. Above the vaults, we found a level sector of *cae-*

7 Golvin 1988, 354–355

8 Golvin 1988, 144

9 Pérez Ballester – Berrocal 1999, 195–197

10 poredia (Ivrea) and Pola: Maggi 1987, 47; Golvin 1988, 134; Tosi 2003, 521–523

11 Terni: Tosi 2003, 366–368 fig.43

12 Golvin 1988, 366–367. Table 48.

6 Pérez Ballester et al., 2011

menticium with an elevation identical to the first tier of the *ima cavea* in the SW sector. This feature can be interpreted as the tribune, *pulpitum* or *pulvinar*.

The wall of the Podium. (Fig. 8)

The *podium* wall was located in several areas of the excavation. The largest sector exposed measures 12 m in length. Until now, there is no evidence available which would suggest that it had a gallery of service. Many doors, secondary gates and accesses opened to the major and the minor axis of the amphitheatre. The *podium* wall was built in *opus quadratum* with a core of *opus caementitium*. In Hispania, the walls of *podia* at Mérida, Segóbriga, Tarraco, Italica, Bobadela, Caparra¹³ and Legio (Leon)¹⁴ were built from large stones. According to block shapes and sizes Segobriga can serve as the closest comparison to our amphitheatre. The largest remaining section of the *podium* wall (sector SW) consists of four courses of sandstone blocks, placed horizontally. The fifth course was not preserved, although we have its impressions in the *caementitium* core. Above it a cornice, a fence or a *balteus* would have been emplaced. A block of gray limestone with a moulded wide *chyma* (which has consecutively been reused over the threshold of the SW-entrance) may well have formed part of the cornice of the *podium's* wall, probably to be dated into the 1st century A.D. This ornamental top with a wide *chyma* ledge can be found in other Hispanic examples such as Mérida, Tarraco, Itálica and Bobadela.¹⁵ The total height of the wall would have been 2.87 m, similar to Segobriga's *balteus* of 3.15 m¹⁶ and the *balteus* from Tarraco of 3.25.¹⁷

The wall was covered with several layers of plaster which still remain in situ. Remnants of red paint are preserved in the lower course, while the higher courses preserve green –or at least dark – paint. The plaster provided a totally smooth and regular surface. It would have been painted with decorative systems, beginning with a simple layer of red paint (Carnutum, Alba Fucens, Lugdunum etc.) to imitations of polychrome veined marble as in Pompeii or Thysdrus (El Djem), Aquincum or Augusta Raurica.¹⁸ In some of these cases scenes were painted showing the struggles of gladiators or fights between

animals (*ludi, munera*) of which we have magnificent examples in the amphitheatre of Pompeii or in Mérida, although in this last case paintings were located in the *balteus*, on the wall of the *podium*.¹⁹ At the SE minor axis the *podium* wall stands between one and four blocks high (Fig. 9). These blocks continued beneath the level of the *arena*; not being considered as foundations because they were plastered and painted. Hence, we can conclude that the wall was already being used at a time prior to the monumental amphitheatre which is presented here. The wall must belong to the first phase of the amphitheatre or it constituted an element of an earlier amphitheatre on the site.

The Arena.

The first excavations were carried out in 1983 and showed that the natural rock had been levelled in the NW half of the amphitheatre at a depth of 3.80 – 4 m underneath the *arena* level of the modern Plaza de Toros. Above of it, several layers of sandy soil composed the original pavement of the Roman *arena*. In 1992, in the NW section the same layers were documented above a thin layer of pottery sherds which date not later than the Republican period (with a *t.a.q.* 40/30 B.C) on the levelled natural rock.²⁰

During the excavations of 2010 carried out in the SW sector a mass grave was detected. It was filled in with rocks, loose soil and human bones. It can be dated into the second half of the XVIII century, when the amphitheatre was used as a cemetery, especially between 1760 and 1785.²¹ Only a small portion of the *arena* is preserved next to the wall of the *podium*, and it is formed by a thin level of compact, light, brown earth, without any ceramic material. Right beneath this layer another one of pure earth was identified, showing at least two phases of use of the *arena*. These are similar to those identified by the excavations carried out in the Ruedo de la Plaza de Toros during 1983.

The peripheral gallery and the façade.

The presence of a peripheral gallery was detected in the SW sector in an elongated area of about 50 m extension. The gallery is defined by interruptions of the radial walls along the external wall of the amphitheatre. At the terminus of each of the radial walls a

13 Cerrillo 1994, pl. 5.

14 Durán et al. 2009, 22 f.

15 Frade – Portas 1994, 350.

16 Almagro – Almagro 1994, 144.

17 Dupré 1994, 81.

18 Hufschmid 2009, 64. 539.

19 Golvin 1988, 318–319; Alvarez – Nogales 1994, 275–276.

20 Pérez Ballester 1987, 283–285; Pérez Ballester et al. 1995, 103–104; Pérez Ballester – Berrocal 1998, 250 f.

21 Pérez Ballester – Berrocal 1998, 251.

large block of sandstone is attached to the *caementitium*. These blocks would have formed the bases for pilasters on which arches rested. The arches would connect the radial walls to the outer pilasters of the façade. The resulting gallery would have had an average width of 3.60–3.80 m and would have served as a corridor to ease communication between the entrances of the amphitheatre.

The façade of the amphitheatre has completely disappeared and only part of the outer ring wall has been preserved. It is 1.60 m wide, with foundations that would have been 7 m deep in this sector of the amphitheatre. In the SW sector, where the base rock is at surface level, up to five courses (1.8 x 3m) have been documented. Two of them still show a *caementitium* basis, but they barely stand 20 cm above the ground level and still show marks of the sandstone blocks that would form their elevations with *opus quadratum* (Fig. 10). A third basis preserves a first basement of thick grey limestone blocks, which would continue to be elevated with other sandstone blocks. These structures tell us about the façade, which would have had arcades with a width of 3.3 m of between pilasters in the AccSW of the major axis.

Arcaded peripheral galleries are common constituents of theatres since the end of Republican times, but in monumental amphitheatres they were not generally used until Flavian times. However there are four known examples dating to the Julio-Claudian epoqe: Verona, Pula, Interamma and Nahars.²²

The access to the major axis

The SW Access (AccSW) (Fig. 11) consists of a wide corridor with a regular width of 4.60 m and an estimated length of about 20 m, of which 17.5 m are preserved. The walls of *opus vittatum* have an average elevation of 3–3.5 m. On the southern side part of the original covering plaster is preserved, with two identified layers and possible traces of paint on the surface. This feature has already been described in the same sector, (specifically on walls now cut by Gisbert Street).²³

The coating of *opus caementitium* or its faces with one or more layers of plaster is a common feature of early amphitheatres of the Republican era in Campania: mortar on *caementitium* and *opus incertum* in Capua; on *opus quasireticulatum* in the first amphitheatre of Puteoli; on *opus reticulatum* in Abella, Ca-

les or Nola.²⁴ Nevertheless there are no documented cases of mortar covering *opus vittatum* walls of later amphitheatres.²⁵ Neither can this feature be detected in the great monuments with *vittatum* walls of Tarraco (amphitheatre and circus), dating into Early Imperial times. In a note about Mérida Golvin cites the fact that on the *incertum* walls of the Augustean amphitheatre of Mérida a coating of plaster existed, of which only scant traces were to be detected.²⁶

The slope of ground between the remaining outer part of the corridor and the *arena* is considerable (7,5%), resulting in a difference of elevation of more than 1.5 m. This makes us think that AccSW would not correspond to the so-called *porta triumphalis*, where the *pompa* or parade started for those taking part in the *ludi gladiatorii* (the *pompa* requiring a more comfortable access), but to the *porta libitinensis*, used for evacuating men and wounded or dead cattle to the *spoliarium*.²⁷ Anyway, Hufschmid²⁸ concludes that *porta triumphalis* is a neologism that was not used in Roman times, while the terms of *porta sanavivaria* (gate of life) and *porta libitinensis* (gate of death) were commonly used and refer to two main entrances into the *arena* of the amphitheatre. In the external part of this corridor, lateral cuts were found which could correspond to the leaves of the main gate.

Along the walls of the corridor four vaulted rooms or *carceres* can be located, situated in pairs, both opposite to another. The outer pair is located beyond the cuts for the outer door. The inner pair opened to the *arena* and AccSW. They are built between annular and radial walls. The outer northern *carcer* is 3 m wide and 2.8 m deep. The walls are built of *opus vittatum*, and the vault is constructed in the 'blocage' technique that we will describe further below. It is therefore a room between the intersection of radial and concentric walls and not a *carcer* in the strict sense of the term.

The outer southern *carcer* (Fig. 12) is 3 m wide and 2.8 m deep, closely resembling the northern *carcer*, but added to it is a second room, measuring 5.5 x 2.3 m. Entrance to it is gained across a step 1.5 m wide. The ceiling of the front room is executed 'en blocage', while the interior room has been modified in modern times, having been covered with a vault

22 Golvin 1988, 216.

23 Pérez Ballester et al. 1994, 111.

24 Welch 2007, 201–245.

25 Adam 1984, 147–151; Golvin 1988, 71–73. 140–145.

26 Mérida 1919, 19; Golvin 1988, 110.

27 Golvin 1988, 323 quoting Colagrossi.

28 Hufschmid 2009, 21–23. 42. 45.

made of sandstone blocks and a squared opening in its centre, similar to those detected in other rooms of the amphitheatre. This allowed it to be used at first as a funerary deposit in the 18th century, and afterwards as a cistern in the 19th century, which belonged to a house located above the room.

Of the remaining interior *carceres* only the northern interior *carcer* was excavated (Fig. 13). It is a room with two entrances: the first one opens to AccSW and the second to the *arena*. This 'double entrance' feature, always in the same location, can be found at a dozen amphitheatres,²⁹ including those of Carmona and Mérida in Hispania, which must be added to those of Bobadela³⁰ and London.³¹ This feature does not bear any chronological significance as it occurs from Republican time until the 2nd cent. A.D., for example at Lambaesis, Tuburbo Maius etc. It is in fact a rather usual feature of amphitheatres that were completely or partially excavated from bedrock and constructed either as solid structure system 'estruccura pleine' or 'remblais compartimentés'. Buildings of such a kind offer few space for service rooms in comparison to large amphitheatres that were built over vaults. This implies that the first category needs a greater versatility in the use of the rooms, as in many cases they do not have a corridor around their perimeter that runs behind the wall of the *podium*. These *carceres* communicate with the *arena* and at the same time facilitate the entrance and exit to the large access of the axis when the *spectacula* were in progress and therefore those accesses closed. Among the amphitheatres provided with *carceres* with double doors, all except one (Pola) were constructed with 'remblais compartimentés', offering hollow or built structures only in some elevations of the *summa cavea*. In our case, as in Carmona, our *carceres* – two at each side of the major axis – were the service rooms attached to the *arena*.³²

The walls of the northern interior *carcer* were constructed in *opus vittatum*. The room was vaulted with a dome constructed from sandstone and andesine rocks embedded into a *opus caementitium* in a radial arrangement. This is the same type of construction which can be found in the other *carceres* (exterior northern and southern ones). This type of construction of vaults 'en blocage' appears only until Julio-Claudian times in amphitheatres such as Syracuse,

Saintes, Cassino, Venosa or Périgeux.³³ This construction technique can be added to our archaeological information in order to achieve a precise chronology for the monument.³⁴ Original plaster covering the walls remains *in situ* to a height of 0.20 m above the floor. The access corridor to the gate that opens directly to the *podium* is covered by large horizontal sandstone blocks, rather than by a radial vault like over the room. The gate (Fig. 14) is narrow (1.50 m.) as it is commonly the case in many other amphitheatres. In the gate the threshold of grey limestone is preserved *in situ*. It carries carvings for the insertion of the wooden bolts for locking the door. Another large limestone block was used to reduce the width of the door at a later time.

The southern inner *carcer* is situated exactly opposite to its northern counterpart. This is indicated by a door, which has been blocked in modern times. Probably this *carcer* will have been symmetrical to the northern one, having had a similar second door that opened into the *arena*.

On the upper part of the walls of the south-western access, at a distance of 5.5 m from the wall of the *podium*, remains of several sandstone blocks have been documented (Fig. 15). These blocks formed the footing of a wide arc in *opus quadratum* which carried the vault over the south-west entrance. Towards the *arena* we would find an open corridor, as parallels from different periods show: Pompeii, Sutrium, Leptis Magna etc.,³⁵ or, in Hispania, Mérida,³⁶ Italica,³⁷ Tarraco,³⁸ and perhaps Carmona as well.³⁹ The vault marks the inclination of the bleacher above the access to the *arena*, probably supporting a small terrace, similar to Tarraco,⁴⁰ on which a building inscription and/or honorary inscriptions would have been placed.

Where the *carcer* meets the *arena*, a threshold, originally consisting of four blocks of grey limestone, appeared (Fig. 16). Only one is located *in situ*, while the other three have been removed from their original position, which defined the main entrance. The northernmost block is a reused piece of a cornice, which originally belonged to the wall of the *podium*. The cuts of the threshold show the openings of the door to the interior of the corridor.

29 Golvin 1988, 229 f., table 41.

30 Frade – Portas 1994, 351.

31 Wilmott 2009, fig. 13,5.

32 Corzo 1994b; Welch 2007, 252–254, fig. 186.

33 Golvin 1988, 144.

34 Pérez Ballester et al. 1994, 112–113.

35 Golvin 1988, pl. XXIII, 2. XXV, 1. XIII, 1.

36 Bendala – Durán 1994, fig. 1 and pl. II, 1; Calero 1994, fig. 1.

37 Corzo 1994a, 194, plan IV.

38 TED'A 1990, pl. 2.

39 Corzo 1994b.

40 Ruiz de Arbuló 2006, 35–38.

The measurements of the blocks of the threshold from North to South:

Block 1 (*in situ*): 0.80 x 0.50 m.

Block 2: 1.65 x 0.60 m.

Block 3: 1.30 x 0.60 m.

Block 4 (cornice): 0.60 x 0.50 m.

There is a small plinth made of *caementitium* with a covering of plaster behind block 1 that marks the maximum opening arc of the leaf.

Northeastern access

Because of the current disposition of the structures of la Plaza de Toros we have little more information about the northeastern access except of that it was located symmetrical to the southwestern access. So far we have managed to document the beginning of the entrance ramp. In its vicinity a survey revealed a *vittatum* structure of at least 3.5 m beneath the current floor. This indicates that in this position a set of *carceres* is preserved underneath which is similar to these at the southwestern access.

Structures along the minor axis

The SE area

Archaeological surveys carried out in 2011 in this part of the site brought to light the following archaeological features: a *caementitium* level and beneath of it three vaulted areas. In front of this, the wall of the *podium* was found (Fig. 17).

The *caementitium* shows a flat surface and appears over the vaults. Their elevation matches the elevation of the first tier of the *ima cavea* in the SW sector. It is important to note that the preserved remains are located at a distance of 2.75 m from the wall of the *podium*, which means that we are dealing with the remains of the *tribuna*, *pulpitum* or *pulvinar*; a wide space that was centered on the minor axis – as in our case – and was used to seat the persons who presided over the games. Such a feature can be recognized in the majority of known Roman amphitheatres. Here it is assumed that the structure measured approximately between 6.5 to 8 m in width and 3.5 to 5 m in depth.

The three vaulted rooms may reliably be identified with spaces described by Montanaro and López del Castillo in 1736, excavated by the latter and represented in a drawing from the archive of the Museo Arqueológico Nacional in 1751 (comp. Fig. 1). The three rooms will have been connected back to back, and are built 'en blocage', as is the case with all vaults of the amphitheatre.

The northern room has mostly collapsed and remains yet to be excavated. Its collapsed parts separate it from the wall of the *podium*, to which it had obviously been attached. The vault with a span of 2.20 m rests on two radial walls which are barely visible. One of the walls served also to support the vault of the central room.

The vault of the central room has also collapsed over a large part of the excavated area. In those parts where sections of the vault are preserved the evidence shows that the room was blocked in modern times. Testimony from the 18th cent. mentions the use of the vaults of the amphitheatre to accommodate humble homes. The vault has a span of 3 m and it presents towards the *arena* a narrow corridor that would communicate with a door placed in the wall of the *podium*. The planimetry confirms that this vaulted space equates to the one in the external enclosure of the amphitheatre, above the sewer, visible from the opposite side of Dr. Fleming Street.⁴¹ It would have served multiple aspects of use: service to the *arena's* room, support of the *pulpitum*, *tribune* or *pulvinar* and access for the big sewer which drained the amphitheatre.

The southern room, adjacent to the aforementioned one, retains its vault almost as far as it reaches the wall of the *podium*. It is identical to the previous entrance, with a width of 2.20 m. Most of the original *caementitium* has been preserved above it.

The NW room.

At the north western end of the minor axis a small room, measuring 4 x 3 m was found in 1992. It was partially carved into the rock, lined with sandstone blocks and paved with a floor made from mortar, containing sandstone fragments. This room will have been accessible through a small door in the wall of the *podium*. It has been interpreted as a possible *sacellum*, in analogy to identical situations in the amphitheatres of Tarraco and Segóbriga.⁴² The structures have deteriorated due to their reuse in the 18th century.

The subsoil.

Drillings carried out in 1983 in the amphitheatre's *arena* cancelled the possibility of the existence of a *fossa bestiarum* or any other extensive underground structures like the ones documented, for instance, in the amphitheatres of Mérida or Tarraco.

41 Pérez Ballester et al. 1994, 105–106, fig. 7.

42 Pérez Ballester et al. 1994, 109.

With regard to the drainage system, the existence of two overlapping sewers of remarkable size was already known, and they are protected by two large walls covered with *opus vittatum* (Fig. 18). They were found under a great vault, the same central vault described in the minor axis of the SE end. These were clearly channels which served to drain the amphitheatre. They will have led to the sea shore which was much closer to the building in Roman times than it is today. During the campaign of 2011 we have documented the continuation of this draining system. The whole system consists of:

A small, vertical, rectangular gap used as an entrance that gives way to an underground structure consisting of two superimposed channels. This is a common feature in drainage structures, as pointed out by Golvin⁴³ with multiple examples.

An upper sewer, with rectangular section, 1m high and 0.60 m wide. Its direction points towards the centre of the *arena*. It reaches the surface only 3.30 m from the centre of the *arena*. At this place a sink is supported by an arc built from bricks (Fig. 19).

A lower sewer with walls of *caementitium* covered by large sandstone blocks (Fig. 20). This sewer leads out of the amphitheatre, with a length of 16 m. It shows a substantial degree of sedimentation, which decreased its height to 1.50 m. Its original height towards the exterior of the amphitheatre should be estimated to have been around 2 m. The width of this sewer is uniformly 0.60 m all along its documented length. Vertical grooves in one of its flanks point to the likely existence of downpipes. Underneath the *arena* its covering is level and made of *caementitium*.

Large underground collectors underneath one of the main axis which had the function to drain the building are documented in many amphitheatres. In Tarraco this collector passes under the vault of the lower seaward axis, as is also the case in Cartagena.⁴⁴ The covers of these channels were normally made from level *caementitium* slabs, although the sector underneath the *cavea* could be vaulted with the purpose of distributing larger loads more efficiently, as is the case in Casinum which was built during the second half of the first century A.D.⁴⁵ The same can be seen in Cesarea.⁴⁶ In the case presented here whereas, which dates a little earlier, slabs which were

placed along the shape of an inverted V were carrying the load of the superimposed structures.

This discovery caused us to reassess the results of geophysical surveys conducted by the Institute of Geology of the C.S.I.C in the Ruedo of the Plaza de Toros during 1988 (Fig. 21) The isocurves marked a possible central structure of about 5 x 5 metres in the centre of the *arena*. The existence of a structure is possible, as a drawing from 1751 suggests (Fig. 1). This structure would be a central sink that would end in a box or tank of regular size, similar to those documented in the aforementioned examples of Casinum and Cesarea, but also in other places as Ivrea⁴⁷ and Syracuse,⁴⁸ dating to the first century A.D. Such basins would drain water through one of the sewers. These structures appeared in the last two days of excavation in 2011, so they were not properly documented.

General discussion and chronology

We are talking about an amphitheatre partially excavated in the rock of the hill's slope (*ima* and *media cavea*) in the W and NW sectors; built using radial walls and vaults in the areas of the major entrances along the major axis (SW and NE), as well as in the eastern end of the minor axis. The rest of the monument used compacted fills between radial and concentric walls. Its exterior dimensions are 100 x 77 m, or 110 x 77 m if one takes into consideration the possible existence of constructions added to the ends of the major axis. The *arena* measures 60 x 37.5 m. The amphitheatre's capacity is provisionally estimated to have amounted to some 11,000 spectators.

There is sufficient archaeological and architectonic evidence available to achieve a closer definition of the monument's construction. The use of simple *opus vittatum* is common in the oldest theatres and amphitheatres in Gaul, such as Fréjus, Senlis, Lutetia, Grand or in theatres of Vienne, Lyon or Autun; they all date from the time of Augustus. The use of this peculiar style of wall surface was generalized and spread during the Julio-Claudian and Flavian era over Gaul as well as over Northern Italy or Hispania: Segobriga and Tarraco.⁴⁹

According to Golvin, the construction of all the vaults of the amphitheatre with the 'en blocage' system (Fig. 13) commonly occurs in amphitheatres from Julio-Claudian times, but ceased to be applied

43 Golvin 1988, 333 f.

44 TED'A 1990, 178.

45 Golvin 1988, 144; Tosi 2003, 52 f.

46 Golvin 1988, 112.

47 Maggi 1997, 49 f.; Tosi 2003, 569 f.

48 Tosi 2003, 616–618.

49 Golvin 1988, 72.

in Flavian times. At the same time, the construction of a part of the *cavea* over vaults is only documented since Julio-Claudian times⁵⁰.

According to Golvin, the absence of *opera latericia* is an indicator that would date the monument before the end of the first century A.D. The discovery of an arch made of bricks in the underground conduits (Fig. 19), does not speak against such an early chronology, according to the studies of the Pizzo⁵¹ on Roman bricks in Mérida, where both *opus latericium* and *opus testaceum* are documented already since the foundation of the city under Augustus.

Only the existence of a peripheral gallery with arcades, documented in previous campaigns could lead us to a later time (Fig. 10). It is present in theaters since the late Republican era, but it did not come into general use in amphitheatres until Flavian times, although we have noted that there are four examples from Julio-Claudian times. These are Verona, Pula, Interamna and Nahars.⁵² Alternatively, this element could have resulted from a secondary enlargement, as is the case in other amphitheatres. All these data help to date the construction of the monument before the Flavian period, but after the time of Augustus.

The archaeological data support this date. The chronology of the material used for fills in various areas of the amphitheatre, and especially those located under the bleacher in the SW sector, supplies a *terminus post quem* near the end of the reign of Claudius (first half of the first century A.D). Phase 5 of the general stratigraphy of the area of the Amphitheater, relating to fills of the area surrounding the

monument, dates after 60–70 A.D.⁵³ Based on these arguments, the construction of the monumental amphitheatre can be dated into the latest years of Claudius or into the reign of Nero.

The possible existence of a predecessor Amphitheatre

The curved walls of adobe (2 m in width) underneath the NW Sector⁵⁴ as well as the curved wall documented in 2011 under the *cavea*; a vaulted structure – also with adobe – in the NE sector and the wall of the podium in *opus quadratum* – reused in the later monumental phase – (Figs. 6 and 22) seem to indicate the existence of a predecessor amphitheatre. Its *arena* would be 0.50 m below the *arena* of the present building, as it could be documented in the SE sector. This first Amphitheatre of Cartagena would have used the slope of the Cerro de la Concepción as part of the *cavea*. As a hypothesis, the *cavea* would partly have been elevated on a structure made of wood, while its other side rested on the the rock. Even if it seems likely, there exists no independent proof to the theory that the lower sewer belonged to this early amphitheatre.

Finds from the fill behind the adobe wall, behind the vaulted adobe-structure and from under the lowest level of the *arena* (excavated in 1983) and the material from the layers of phase 4 in the area of the amphitheatre can be related to the construction of the monument. They have all the same *terminus post quem* of 40/30 B.C.⁵⁵ These data help to date the construction of this possible first amphitheatre into the early reign of Augustus or possibly even a little bit earlier.

50 Golvin 1988, 144.

51 Pizzo 2010a; 2010b.

52 Golvin 1988, 216.

53 Pérez Ballester 1991; Pérez Ballester 2000; Pérez Ballester et al. 1994, 100 f.; Pérez Ballester – Berrocal 1999.

54 Pérez Ballester et al. 1994, 103. 113; Pérez Ballester – Berrocal 1999.

55 Pérez Ballester et al. 1994, 104. 108. 113.

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Fig. 1
Drawing of the amphitheatre, 1751 (Library of the Museo Arqueológico Nacional).

11. Representación del Amphitheatro, y Carcel, que ha antigüedad se ca en Cartagena, segun manifestaron sus ruinas, bosquejadas en el año del 1751.

1

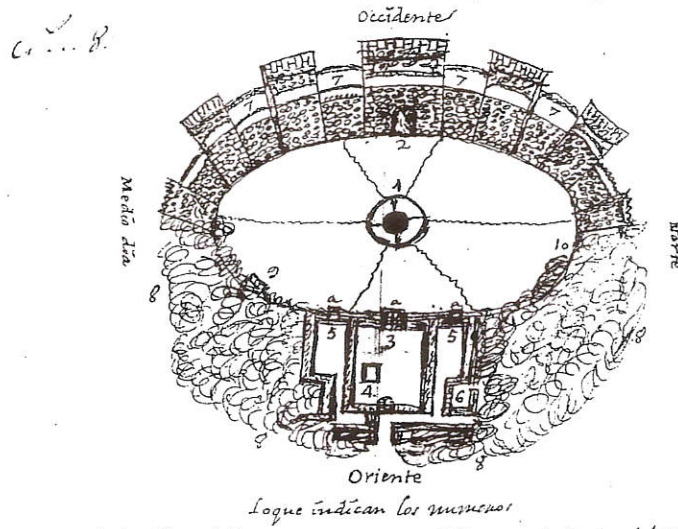


Fig. 2
Aerial view of the area. 1: Amphitheatre – Plaza de Toros. 2: Real Hospital. 3: Infantry barracks. 4: Autopsy Amphitheatre. 5: Gisbert Street.

- Lo que indican los números
- | | |
|--|---|
| 1. Sumidero de las aguas | 6. Ruinas y fundamentos de las varias reclusas, que se ca en la Carcel |
| 2. Casaca enfrente de la puerta de la Carcel. | 7. Miradores para las banderas |
| 3. La pieza principal de la Carcel. | 8. Ruinas de las celdas de las prisiones de la Carcel |
| 4. Expositio, q se ca a la cloaca o Alcantara. | 9. Puerta q se ca al interior del Carcel para ir a las celdas |
| 5. Otras dos piezas interiores de la Carcel. | 10. Debajo de tierra se han descubierto varias sepulturas, y otros q se ca en la Carcel |



2



Fig. 3
Plaza de Toros 2009.
Emptied Insides.

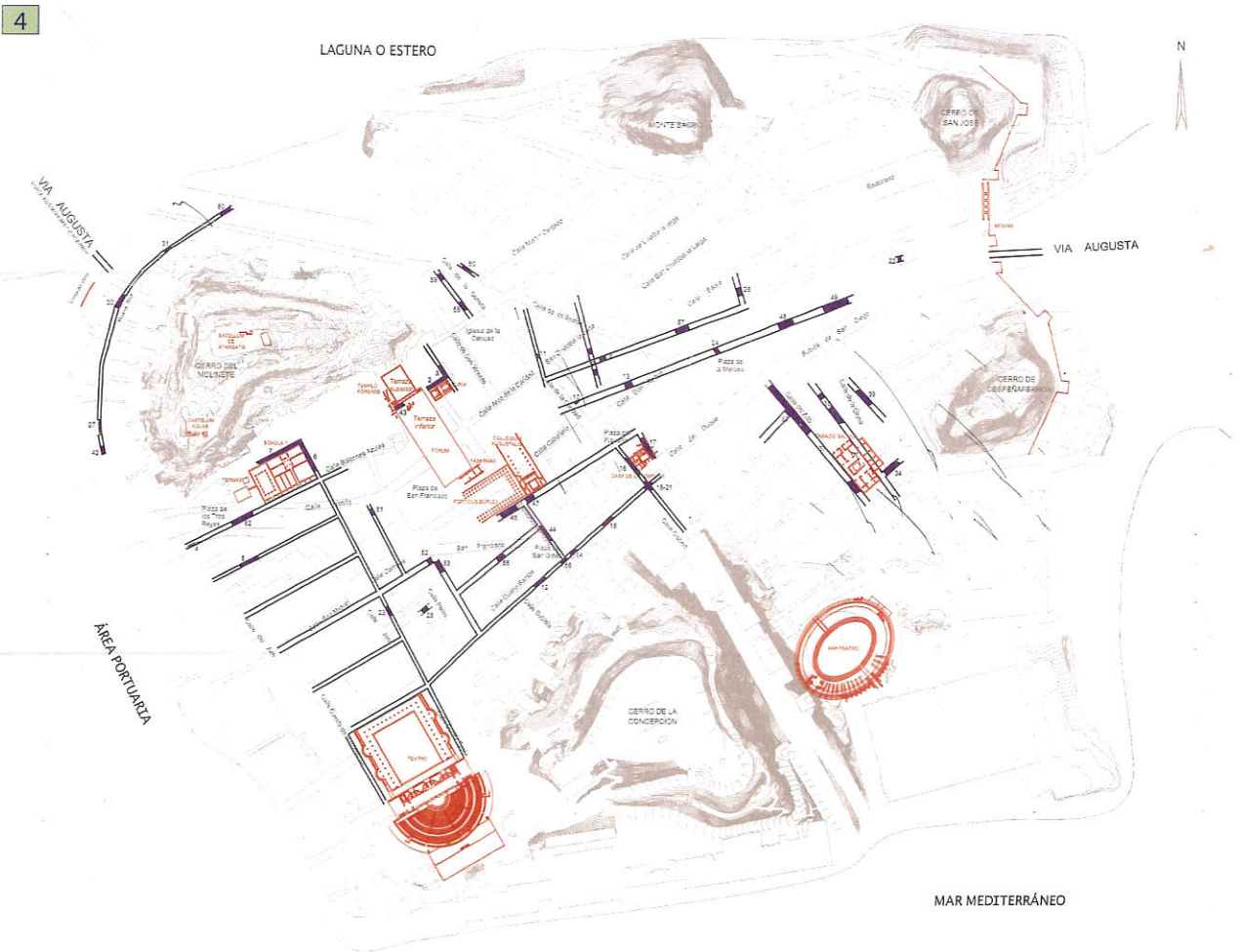


Fig. 4
Map of the Roman
city of Carthago
Nova, from their
archaeological re-
mains.

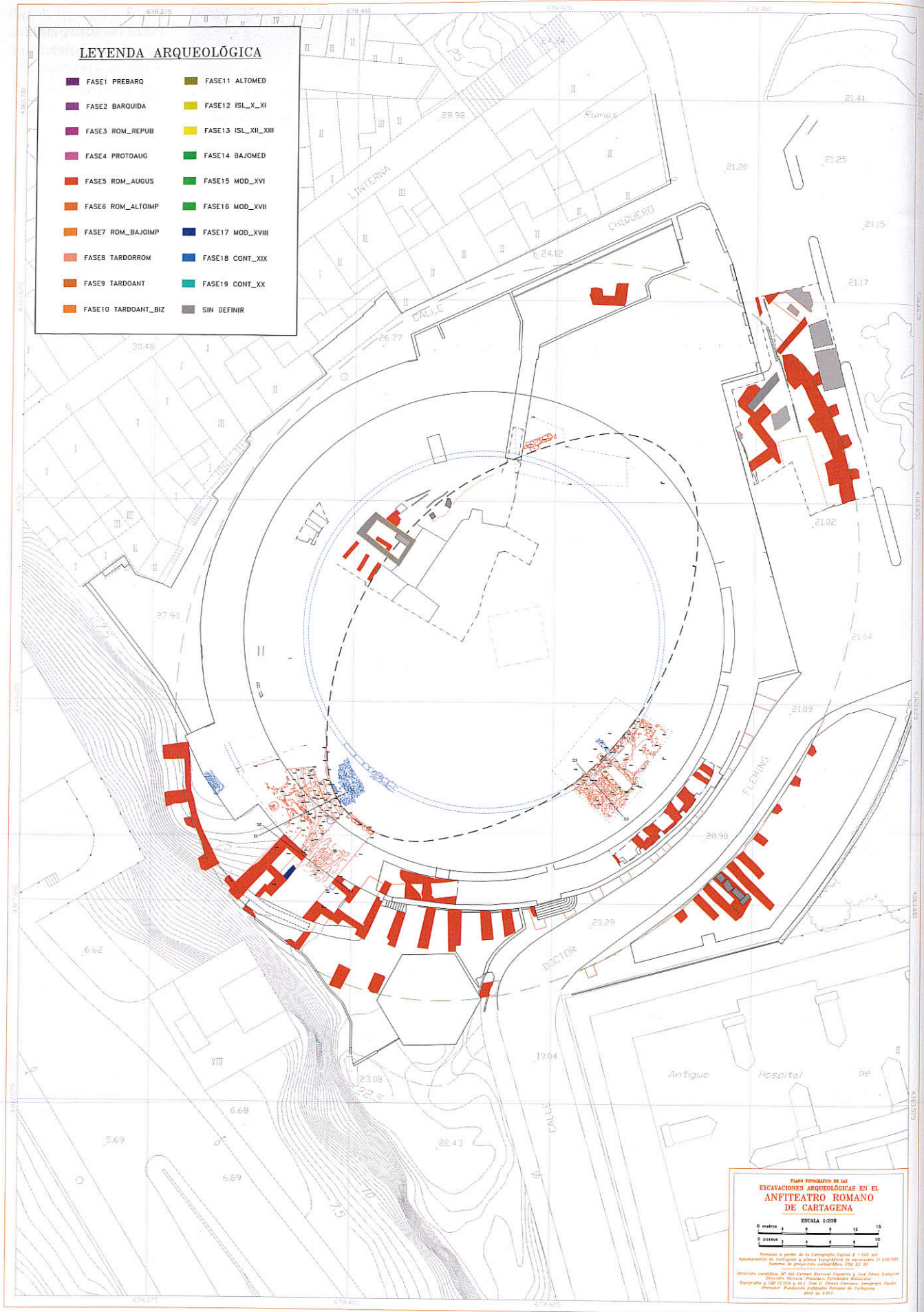




Fig. 5
General Map of excavations (2011).

Fig. 6
Ima cavea. Beneath the curved wall of adobe.

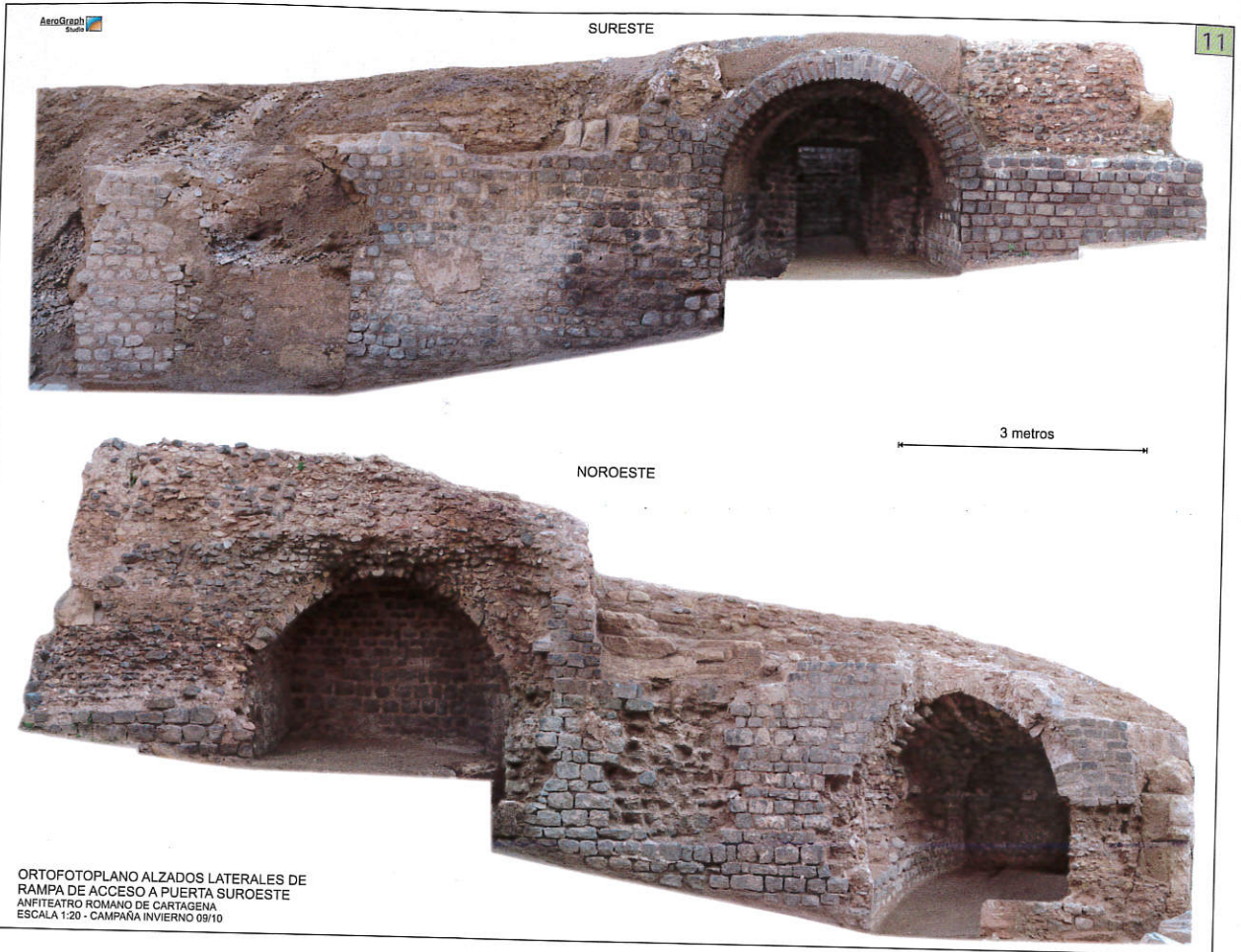
Fig. 7
Vomitorium 1 and box of stairs.

Fig. 8
Wall of the podium. Frontal orthophoto.

Fig. 9
Wall of the podium, SE Sector.

Fig. 10
Threads for the arcades of the façade.





17

AeroGraph
Studio

SURESTE



ORTOFOTOPLANO DE ALZADO SONDEO EN SEMEJE ORIENTAL
ANFITEATRO ROMANO DE CARTAGENA
ESCALA 1:20 - CAMPAÑA FEBRERO-MARZO 2011

3 metros

Fig. 11
The access to the major axis with its *carceres*.

Fig. 12
Outside South *carcer*.

Fig. 13
Northern Interior *carcer*. Inside.

Fig. 14
Northern Interior *carcer*. Door in the wall of the *podium*.

Fig. 15
Blocks of *quadratum* between the Northern External and Internal *carceres*.

Fig. 16
The Access SW to the major axis. Threshold. At its end, a reused cornice.

Fig. 17
The SE end of the minor axis. The three central vaults.

Fig. 18
SE Sector. Outside of the Plaza de Toros. Firstly, exit the great sewer of the amphitheatre. In the background, "Anfiteatro de Autopsias" of the Hospital (s. XVIII).

18



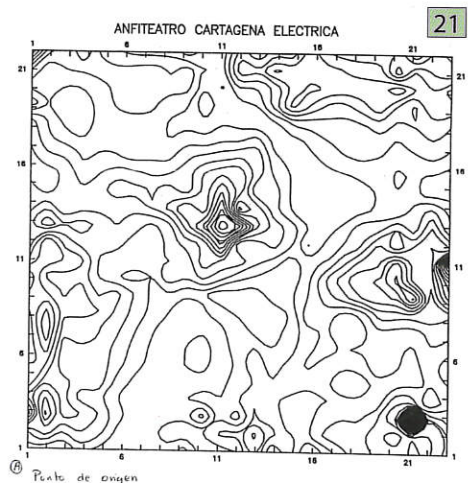


Fig. 19
Lower sewer in the interior of the amphitheatre. Brick arch.

Fig. 20
View of the lower sewer.

Fig. 21
Map of the geophysical surveys conducted by the Institute of Geology of the C.S.I.C (1988) in the Centre of the arena.

Fig. 22
The NW end of the minor axis. Curved wall of adobe.

