



# LUND UNIVERSITY

## A courtyard gate at Thourioi

Gerding, Henrik

*Published in:*

Opuscula: Annual of the Swedish Institutes At Athens and Rome

*DOI:*

[10.30549/opathrom-04-02](https://doi.org/10.30549/opathrom-04-02)

2011

*Document Version:*

Publisher's PDF, also known as Version of record

[Link to publication](#)

*Citation for published version (APA):*

Gerding, H. (2011). A courtyard gate at Thourioi. *Opuscula: Annual of the Swedish Institutes At Athens and Rome*, 4, 7-18. <https://doi.org/10.30549/opathrom-04-02>

*Total number of authors:*

1

*Creative Commons License:*

CC BY-NC-ND

### General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00

SVENSKA INSTITUTEN I ATHEN OCH ROM  
INSTITUTUM ATHENIENSE ATQUE INSTITUTUM ROMANUM REGNI SUECIAE

---

# Opuscula

Annual of the Swedish Institutes at Athens and Rome

4  
2011

STOCKHOLM

# A courtyard gate at Thourioi

## Abstract\*

In the early seventies Paola Zancani Montuoro suggested that a large paved structure, which had recently been uncovered at the site of Sybaris/Thourioi in southern Italy, was the remains of an ancient *neosoikos*, or shipshed. This idea quickly gained widespread acceptance and is still often repeated, despite some objections having been raised. In this paper it is argued that the structure, which cannot have been a shipshed, was actually a courtyard gate belonging to the Late Classical or Early Hellenistic city wall of Thourioi.

## The history of Thourioi

The Greek colony of Sybaris was founded by the Achaeans at the end of the 8th century BCE. Diodorus Siculus tells us that the city was situated between the rivers Krathis and Sybaris on the south coast of the Italian peninsula.<sup>1</sup> The fertile plain was a source of wealth and the colony soon became famed for its size and riches. In 510 BCE, however, internal strife led to a conflict with the neighbouring colony of Croton, whereby Sybaris was overcome and destroyed.<sup>2</sup> Possibly the military disaster was followed by an inundation, which wiped out the city.<sup>3</sup> After an unsuccessful attempt to re-establish themselves on the site in 452 BCE exiled Sybarites and their descendents appealed to Sparta and Athens for help. Sparta turned them down, but Athens responded and sent out an expedition with

colonists from all over Greece in 444/443 BCE.<sup>4</sup> According to Diodorus the colonists found a spring called Thouria not far from the old site of Sybaris. They quickly built up a wall around it and founded the new city there, naming it Thourion (Lat. Thurium) after the spring.<sup>5</sup> However, most other ancient sources refer to the city as Thourioi (Lat. Thuri). An orthogonal town plan was laid out, perhaps by Hippodamos, with four broad avenues (*plateiai*) going lengthwise and three breadthwise.<sup>6</sup>

Thourioi grew quickly and it was soon considered an important port. At the end of the 5th century BC the city was probably at the height of its power, but already about 390 BCE it suffered a heavy blow when its army was annihilated by the Lucanians.<sup>7</sup> During the entire 4th century the inhabitants of Thourioi were hard-pressed by the surrounding tribes of Lucanii and Bruttii, and eventually they became dependent on Rome for their survival.<sup>8</sup> In 282 BCE, C. Fabricius Luscinus rescued the city from a siege by the Lucanians and garrisoned it.<sup>9</sup> Thourioi remained loyal to Rome until 212 BCE, when it sided with Hannibal. In 203, however, the city was sacked by the latter.<sup>10</sup> Thourioi was severely affected by the devastation which Hannibal had wreaked, and Rome tried to revive the city by placing a Latin colony there in 194 BCE.<sup>11</sup> The new colony was named Copia, but it soon reverted to its old name (in Latinized form), Thuri. The city was struck by misfortune again during the Civil Wars, but it withstood

\* This paper is an offshoot of the SSAM project (Shipsheds of the Ancient Mediterranean), funded by the Leverhulme Foundation. The main arguments were presented already in 2006 as part of the “City gate seminars” at Stockholm and Uppsala Universities. I am particularly grateful to David Blackman and Lars Karlsson, who both read and commented on an early draft, and to the anonymous referee who supplied many valuable remarks. All remaining errors are exclusively mine.

<sup>1</sup> Diod. Sic. 12.9.2. Cf. Strab. 6.1.13.

<sup>2</sup> Diod. Sic. 12.10.1.

<sup>3</sup> Rainey 1969, 272; Cf. Strab. 6.1.13.

<sup>4</sup> Diod. Sic. 12.10.2–5; Plut. *Per.* 11.5; *Nic.* 5. 2; Dion. Hal. *Lys.* 1; [Plut.] *X orat.* p. 835. Cf. Strab. 6.1.13.

<sup>5</sup> Diod. Sic. 12.10.6.

<sup>6</sup> Diod. Sic. 12.10.7.

<sup>7</sup> Diod. Sic. 14.101–102.

<sup>8</sup> Livy *Per.* 11; Plin. *HN* 34.32; Val. Max. 1.8.6. Cf. Strab. 6.1.13.

<sup>9</sup> Dion. Hal. *Ant. Rom.* 19.13.

<sup>10</sup> App. *Hann.* 9.57.

<sup>11</sup> Livy 34.53; 35.9; Strab. 6.1.13. The decision was probably implemented in 193 BCE.

an attack from Sextus Pompeius in 40 BCE.<sup>12</sup> After what appears to have been a long period of decline, Thurii was finally abandoned in the late 6th or 7th century CE.<sup>13</sup>

## The excavations

Since the early 19th century archaeologists and treasure hunters have been seeking the mythical ruins of Sybaris. The correct location, although it had been guessed in 1932, was not identified with certainty until the 1960s, after geophysical surveys (with a magnetometer), drilling and some test digging (1960–1965).<sup>14</sup> Among other things, the geophysical surveys revealed the line of a substantial and continuous wall, the so-called “lungo muro”, extending over a distance of almost 1600 m and forming two sides of an enceinte. Between 1969 and 1974 five different areas were excavated by Italian archaeologists in an ambitious project to uncover the city: Parco del Cavallo, Stombi (or Parco dei Tori), Casa Bianca, Prolungamento Strada and Incrocio (Fig. 1).<sup>15</sup> Over the centuries the coast has been affected by a relative rise of the sea

level, but at the same time huge amounts of alluvial sedimentations have been deposited, which have moved the shoreline further out into the sea. As a result, the earliest material remains at the site are now situated below sea level; up to 4.5 m below the ground water table and 6 m below the present ground surface. The excavations were only made possible with the aid of a technically advanced system of well-points, which constantly drained the deep trenches of water.

The excavations have primarily revealed structures from the Roman period, including parts of a Roman city wall (“lungo muro”). However, it has been established that the Roman colony, Copia, preserved the town plan of Thurioi to a large extent without any apparent breach in the urban development.<sup>16</sup> Thurioi, on the other hand, was built partly on top of the remains of Sybaris, but with a distinct discontinuity in the archaeological sequence. For example, at Parco del Cavallo all periods are represented, from the 8th century BCE to the 6th CE, except the first half of the 5th century BCE. However, Attic finds dating from the third quarter of the 5th century BCE are surprisingly few.<sup>17</sup> The division and organization of the urban space was probably carried out

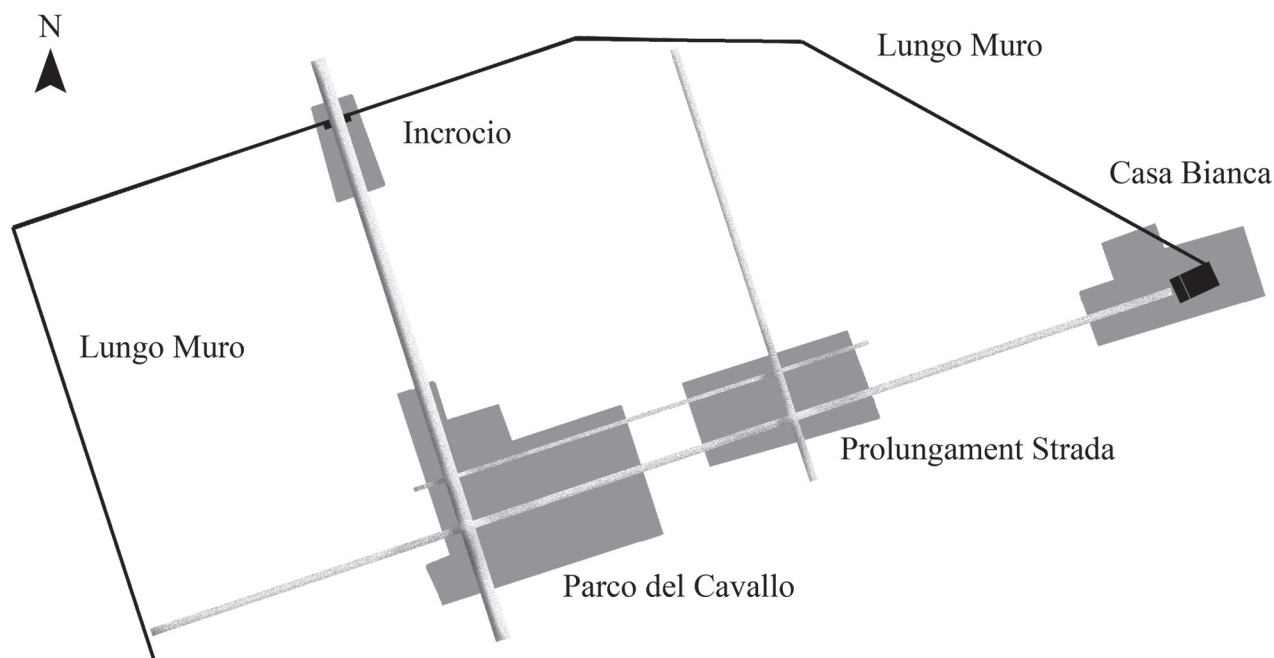


Fig. 1. Situation plan of excavated areas at Sybaris/Thourioi.

<sup>12</sup> App. BCiv. 5.6.56, 58.

<sup>13</sup> Guzzo 1973, 313; 1993, 74; Greco *et al.* 2008b, 1080.

<sup>14</sup> Rainey 1969.

<sup>15</sup> Five excavation reports (one for each of the first four seasons and one comprising the last two) have been published: *Sibari I* (1971); *Sibari II* (1973); *Sibari III* (1974); *Sibari IV* (1978); *Sibari V* (1992).

<sup>16</sup> Guzzo 1973, 280.

<sup>17</sup> Guzzo 1973, 306.

soon after the foundation of Thourioi in 443 BCE, but the realization of the structures and the process to populate the city must have taken some time.<sup>18</sup> Thus, although the street grid of Thourioi belongs to the 5th century, most of the buildings were erected during the first half of the 4th century BCE.<sup>19</sup>

At Parco del Cavallo the excavators found a crossing between two avenues (*plateiai*): one 13 m wide going approximately north–south, and another one 6.5 m wide going approximately east–west. At Prolungamento Strada, 295 m (i.e. 1000 Attic feet) further east along the latter street, yet another avenue was revealed, parallel to the wider one but of smaller dimensions: ca 6 m. Thus, it is probable that the wider street at Parco del Cavallo was the main avenue of the city, situated along its central axis.<sup>20</sup> It was also established that smaller *stenopoi* ran in an east–west direction between the avenues, creating rectangular city blocks of 295 by 37 m. The crossing at Parco del Cavallo appears to have constituted the hub of the city, at least in the Roman period, when it was bordered by several monumental buildings: public baths, two fountains, a theatre and a temple.<sup>21</sup>

The excavation site called Stombi is situated further to the north (ca 1.8 km from Parco del Cavallo). Here the archaeologists only found remains from the Archaic period. It has been suggested that it represented an extra-urban, or peripheral, district of the city, but it clearly indicates that Sybaris occupied a larger, or at least partly different, area than the later colony of Thourioi.

Incrocio was the last area to be opened up by the excavators, and it is situated between Stombi and Parco del Cavallo at the point where the “lungo muro” crosses the wider avenue. It has been recognized as the location of a Roman city gate.<sup>22</sup> Excavations at Sybaris/Thourioi continued also after 1974, but on a much smaller scale.<sup>23</sup>

## The remains at Casa Bianca

Excavations in the Casa Bianca area started in 1970 and carried on for five seasons until 1974. This area is located on the same east–west axis as Parco del Cavallo and Prolungamento Strada, and the site was chosen as the probable location of

the crossing between the extension of this avenue and “lungo muro”—an assumption that proved correct.<sup>24</sup>

The most characteristic feature of Casa Bianca is a large paved surface, ca 24 × 24 m, called “area basolata” in the excavation reports (*Fig. 2*).<sup>25</sup> The pavement is lined by a stone border, 1.65–2.50 m wide, on the north, west and south sides, and slopes gently towards the east. The central area of the pavement is cut by channels, ca 15 cm wide and 20 cm deep, creating a grid. The widths of the channelled area (extending all the way from the east to the west side) and the flanking surfaces to the north and south relate to each other as 1:2:1 approximately. The pavement is made of flat river stones and the channels are also internally lined with stone. Other structures found at Casa Bianca are: 1) a line of ashlar blocks (“allineamento di blocchi di tufo”) parallel to the west border of “area basolata”; 2) a circular structure at the south-east corner of the paved surface; 3) “struttura est” along the eastern edge of “area basolata”; 4) “lungo muro”, which connects to “struttura est” from the northwest. Furthermore, there are five sepulchral buildings erected on top of the paved area and a necropolis extending to the east and north of the above mentioned structures.

The line of ashlar blocks turned out to be connected to “area basolata” by a northern and a southern line. Together they form a second framed area (ca 24 × 7 m), which was also paved with river stones, at least in the mid section. This pavement lacks the channels described above but is otherwise quite similar to the former and it was interpreted by the excavators as a contemporaneous, or slightly later, extension of “area basolata”. This “extension”, however, slopes gently in the opposite direction towards the west. A hard-packed surface, identified as the (unpaved) continuation of the avenue passing through Parco del Cavallo and Prolungamento Strada, terminates against the west side of the extension of “area basolata”.<sup>26</sup> It is delimited on the north and south sides by low walls, perhaps representing kerbs from the Roman period, one of which continues on to “area basolata”. All structures to the west of the paved area adhere to the orientation of the orthogonal street net identified at Parco del Cavallo and Prolungamento Strada,<sup>27</sup> whereas “area basolata” itself deviates from this grid by 3°.<sup>28</sup>

The circular structure, which has a diameter of 7.5 m, is probably the earliest building at Casa Bianca.<sup>29</sup> The remains

<sup>18</sup> Guzzo 1973, 307.

<sup>19</sup> Guzzo 1993, 68.

<sup>20</sup> Castagnoli 1973.

<sup>21</sup> Guzzo 1993, 72.

<sup>22</sup> Guzzo 1993, 72.

<sup>23</sup> Recent investigations have been conducted by Emanuele Greco and Silvana Luppino (Greco & Luppino 1999; Greco *et al.* 2006; Greco *et al.* 2008a; Greco *et al.* 2008b).

<sup>24</sup> Guzzo 1973, 295.

<sup>25</sup> *Sibari* III, 164–264; *Sibari* IV 419–527; *Sibari* V 149–169, 524–589.

<sup>26</sup> *Sibari* III, 178.

<sup>27</sup> *Sibari* IV, 436.

<sup>28</sup> *Sibari* II, 548.

<sup>29</sup> *Sibari* III, 185. The diameter is 7.80 m at the base according to Zancani Montuoro (1974, 77).

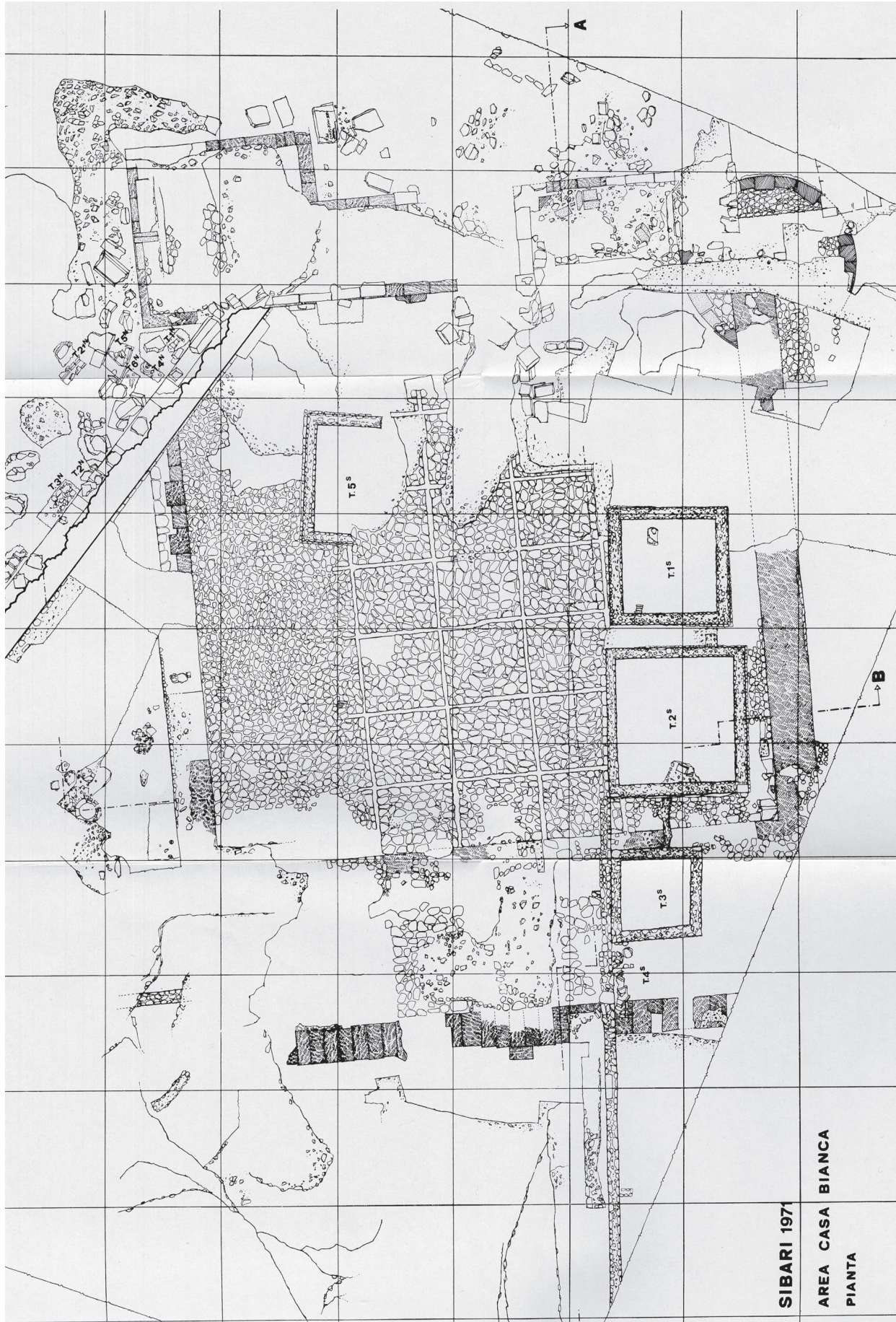


Fig. 2. Plan of excavation area Casa Bianca (Sibari III, folded plan between pages 164 and 165). This plan from 1971 does not represent the final state of the excavation but, in several ways, is still the best available plan. Courtesy of Accademia Nazionale dei Lincei.

include several well cut foundation blocks and one block with carefully drafted margins, belonging to the first course above ground. The pavement of “area basolata” abuts the circular structure and, thus, must postdate it or at least be contemporary with it.<sup>30</sup> An assemblage of ceramics deposited against the north border of “area basolata” establishes a *terminus ante quem* for this structure at the end of the 4th or the beginning of the 3rd century BCE.<sup>31</sup> A deep trench made outside the southwest corner of the paved area confirmed this *terminus ante quem* and suggested that the construction date could not have been earlier than the beginning of the 4th century BCE.<sup>32</sup>

“Struttura est” is made of Roman concrete, covered by a stone revetment. The northern part has a protrusion, which appears to form the base of a square tower. There was also an opening through the middle of the structure, situated on the same axis as the east–west street. Low ramps of compacted earth led up to the opening both from the east and the west.<sup>33</sup> The Roman city wall—“lungo muro”—was also built of concrete with a stone revetment on its outward face, consisting of spolia and reused blocks. It was about 2 m thick and is preserved to a maximum height of 3.75 m.<sup>34</sup> It abuts on and, thus, postdates “struttura est”.<sup>35</sup> Possibly, only the northern part of “struttura est” remained in use at this time, the southern part showing traces of destruction.<sup>36</sup> The sepulchral buildings on top of “area basolata” were probably erected after the original structure had gone out of use. However, they were carefully situated on the north and south sides of the paved area, which left the central part unencumbered. One of the tombs (T.3<sup>s</sup>) overlies the west border of “area basolata”.

The city wall (“lungo muro”) was probably constructed in the 2nd century CE,<sup>37</sup> whereas “struttura est” has been dated to the end of the 1st century BCE.<sup>38</sup> The sepulchral buildings may go back to the 1st century BCE, but were used also in the following century.<sup>39</sup> To the north and east of the paved area (outside the “lungo muro” and “struttura est”) are tile graves from the 3rd century CE.<sup>40</sup> There are no traces of ear-

lier activities in this area.<sup>41</sup> A fragment of a late Republican or Augustan inscription, which was found on “area basolata”, mentions the restoration of a gate.<sup>42</sup>

## Previous interpretations of the structures at Casa Bianca

It was soon realized that the Casa Bianca area constituted the extreme eastern edge of the city, throughout the Hellenistic and Roman periods,<sup>43</sup> but the excavators were reluctant to draw any hasty conclusions regarding the function of the various structures in the area. In June 1972, finishing up the report after the second season at Casa Bianca, P.G. Guzzo concluded that it was impossible to identify the function of the structures at Casa Bianca (especially “area basolata” and the circular structure),<sup>44</sup> but earlier in the report he had tentatively suggested that the paved area constituted some kind of piazza.<sup>45</sup> He assumed that the channels, probably destined for drainage, would have hindered traffic across the central part of the pavement and thus “area basolata” could not be a part of the street net proper. The hypothesis was also aired that a harbour was once located to the east of “struttura est” and that “area basolata” was possibly a quay.<sup>46</sup> In a slightly later article, written after the conclusion of the third season at Casa Bianca, the paved area was tentatively interpreted as a place for taxing goods going into or out of the city, perhaps in connection with a harbour.<sup>47</sup>

The “lungo muro” was immediately recognized as a city wall from the Roman period, but for some time the excavators hesitated to interpret “struttura est” as a gate.<sup>48</sup> There was obviously an opening through the structure on the axis of the east–west avenue leading from Parco del Cavallo, but it was first interpreted by the excavators as a breach made at a later

<sup>30</sup> *Sibari* IV, 432.

<sup>31</sup> *Sibari* III, 169–171.

<sup>32</sup> *Sibari* V, 524–526. Cf. p. 157.

<sup>33</sup> *Sibari* V, 149.

<sup>34</sup> *Sibari* III, 165.

<sup>35</sup> *Sibari* III, 178; IV, 437.

<sup>36</sup> *Sibari* III, 193. The destruction of the southern part of “struttura est” has been dated to the end of the 1st or beginning of the 2nd century CE (*Sibari* V, 156).

<sup>37</sup> Guzzo 1993, 71. Cf. Guzzo 1973, 497.

<sup>38</sup> *Sibari* V, 156.

<sup>39</sup> Guzzo 1974, 42; Guzzo 1993, 75. Cf. *Sibari* IV, 427.

<sup>40</sup> Guzzo 1993, 75. Cf. *Sibari* IV, 427.

<sup>41</sup> *Sibari* IV, 430. Because of the layers of sand, the excavators interpreted the area as having once been a beach.

<sup>42</sup> *Sibari* III, 213, 260, 264. The marble fragment preserves the final letters of five consecutive lines:

```

]L
]AX
]S·PORTAS
]REFECIT
]VIT·TEXITQVE

```

In the first report the inscription was tentatively dated to the middle of the 1st century CE, based on palaeography. This was almost immediately revised to the 1st century BCE (Guzzo 1974, 44), or more specifically to the end of 1st century BCE (*id.* pl. 57).

<sup>43</sup> *Sibari* IV, 435.

<sup>44</sup> *Sibari* III, 445.

<sup>45</sup> *Sibari* III 179.

<sup>46</sup> *Sibari* III, 189.

<sup>47</sup> Guzzo 1973, 296.

<sup>48</sup> *Sibari* III 187.

stage. The building was not considered as a part of the defensive system, but rather as an ornamental monument.<sup>49</sup> Still, in the reports the northern part of the structure was habitually called “a tower”.<sup>50</sup> Eventually, during the fourth season at Casa Bianca, it was established that the opening through “struttura est” was part of the original construction and that the passage had been frequently repaired.<sup>51</sup> Thus, the interpretation of the structure as a gate was beyond doubt.<sup>52</sup> Now it was also realized that, at this point in time, the central part of “area basolata” served as the prolongation of the east–west avenue and that it carried the traffic to and from the Roman gate.<sup>53</sup> Unfortunately though, the excavation report and the accompanying conclusions were not made public until nineteen years after these findings were made.

Oddly, the original use of “area basolata” was never in any way associated with a city gate. This is strange in view of the fact that the complex is situated on the axis of one of the city’s main arteries, constituting its eastern termination just at the point where it meets the line of the later Roman city wall. The explanation for the apparent failure to recognize this possibility must be the lack of clearly identifiable remains of a Hellenistic circuit wall and the early interpretation of the “area basolata” as a building with quite a different function, i.e. as a shipshed.

Already in 1974, Paola Zancani Montuoro presented the theory that “area basolata” constituted the remains of a shipshed (*neosoikos*), i.e. a covered slipway for the storage of ships on land, or possibly an open slipway for the maintenance, loading and unloading of ships (Fig. 3).<sup>54</sup> This idea was probably based on three factors: 1) the hypothetical location of a harbour outside “struttura est”; 2) the sloping surface of “area basolata”, directed towards the sea; and 3) the grid of channels in the pavement. A sloping surface or ramp, situated by the waterfront is perhaps the main characteristic of a shipshed, constituting the necessary slipway upon which a ship can be hauled out of the sea or launched into it. These slipways can be made of different materials: stone, earth or sand, but they often show traces of wooden appliances (traverses and/or longitudinal timbers) with the purpose of reducing the friction against the keel. It is thus understandable that the channels in “area basolata” were interpreted by Zancani Montuoro as slots for a wooden gridiron, related to the slipping of ships. It was suggested that the slots could have held both fixed tim-

bers and movable props for supporting the hulls.<sup>55</sup> The size of the grid indicated that the shipshed might have been used for two ships about 5 m wide and 25 m long. The paved areas to the north and south facilitated the loading and unloading of goods and equipment.<sup>56</sup> Furthermore, Zancani Montuoro identified possible holes for capstans in the transverse wall at the top of three of the longitudinal channels, perhaps used for pulling up the ships.

Zancani Montuoro envisaged that the shipshed was used during the 4th century BCE, and that it had to be abandoned at the end of this century due to the subsidence of the land, turning the area into a marsh. According to her theory, in the Roman period a city gate was built at the eastern end of the shipshed, using the blocks from the dismantled walls. The street passing through Parco del Cavallo and Prolungamento Strada was extended to the gate, over the former shipshed. Tombs were erected on both sides of this street, and the city wall (“lungo muro”) was later joined to the gate.<sup>57</sup>

David Blackman, being the foremost expert on shipsheds in the ancient Mediterranean, considered this hypothesis to be an interesting contribution, as it added a possible new example to the existing corpus of known shipsheds, exhibiting some new features.<sup>58</sup> He also expressed some criticism, however, and suggested that the structure was more likely to be an open shipyard than a berthing place for merchant ships.<sup>59</sup> The shipshed/shipyard hypothesis was not openly questioned until 1992 when a conference was held on Sybaris/Thourioi in Tarento. P.G. Guzzo, the original excavator of Casa Bianca, found the interpretation implausible on the grounds that the coastline was too far away from the structure at its supposed period of use.<sup>60</sup> This could be concluded from excavated data and geomorphologic studies that were not available to Zancani Montuoro at the time of writing her article. Instead Guzzo relaunched his original hypothesis that “area basolata” was some kind of customs area for taxing goods. However, these findings have not disseminated widely and, since the presence of a city gate was only clearly identified for the Roman period, the shipshed theory still remains vivid.<sup>61</sup>

<sup>49</sup> *Sibari* III, 189. However, cf. Guzzo 1974, 42.

<sup>50</sup> E.g., *Sibari* IV, 440.

<sup>51</sup> *Sibari* V, 155.

<sup>52</sup> In 1992 P.G. Guzzo (1993, 72) described “struttura est” as a monumental gate flanked by square towers. See also Carando 1999, 175.

<sup>53</sup> Cf. Guzzo 1993, 76.

<sup>54</sup> Zancani Montuoro 1974.

<sup>55</sup> Zancani Montuoro 1974, 78.

<sup>56</sup> Zancani Montuoro 1974, 78.

<sup>57</sup> Zancani Montuoro 1974, 75.

<sup>58</sup> Blackman 1977.

<sup>59</sup> It should be added that D. Blackman now agrees with the interpretation presented in this paper (see Blackman & Rankov forthcoming).

<sup>60</sup> Guzzo 1993, 68. See also Kleibrink 2001, 38.

<sup>61</sup> For recent advocates of the shipshed theory, see e.g. Hansen & Nielsen 2004, 307. Contra Mertens 2006, 437.



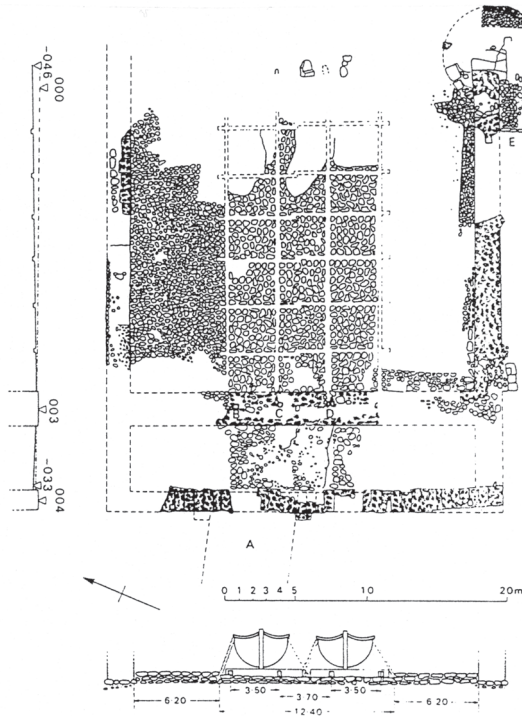


Fig. 3. Plan of “area basolata” at Casa Bianca with reconstructed outlines of suggested shipshed (after Zancani Montuoro 1974, 76, fig. 7).

## A new interpretation of “area basolata”

Apart from the new data regarding the coastline, there are some other problems with the shipshed theory. The slope of the pavement is given by Zancani Montuoro as 2°, which is a very low figure. In reality the gradient is even less, only 0.46 m over a distance of 24 m, i.e. a little less than 2%, or 1.1°. There are some reported instances of shipsheds with very slight gradients, e.g. in Syracuse: 1.15°,<sup>62</sup> but in those cases the make-up of the actual slipway is far from clear and the identification of the remains as shipsheds may even be questioned. Typically, a slipway for a trireme would have had a gradient of about 6°.<sup>63</sup> The main purpose of a shipshed is to harbour a ship out of water under the protection of a roof. Thus, it can be spared attacks from the aggressive ship-worm (*terredo navalis*) as well as the deteriorating forces of sun and rain. It can be noted that “area basolata” is far too wide to have been roofed over. There are no traces of interior supports (columns or piers)

<sup>62</sup> Basile 2002, 171.

<sup>63</sup> See Blackman & Rankov forthcoming.

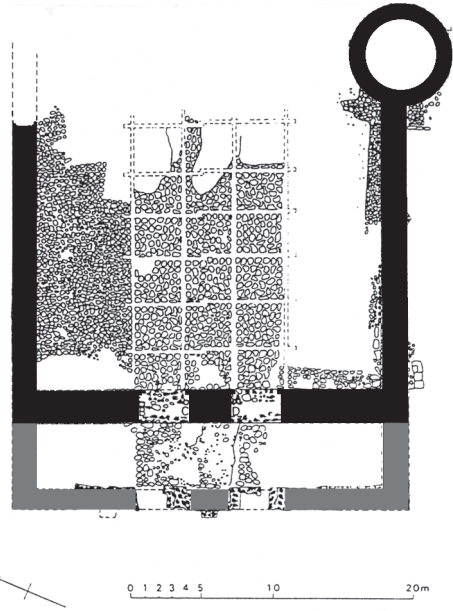


Fig. 4. Suggested layout of a courtyard gate at Casa Bianca (adapted from Zancani Montuoro 1974, 76, fig. 7).

and buildings with a clear span of 24 m could not be covered until the 1st century BCE, as far as we know today.<sup>64</sup>

“Area basolata”, had it been closer to the sea, might have been an open area used for ship building and repair, but why then the wide stone borders? Zancani Montuoro may have been right in one respect: she interpreted the large sandstone blocks lining “area basolata” not just as borders, but as wall foundations. Although the purpose of these walls was uncertain, she noted that the width of the foundations indicated that they carried a substantial load.<sup>65</sup> If they did not carry a roof, what other alternatives are available?

In order to arrive at some understanding of the purpose of this structure, I would like to draw attention to its location and its plan. “Area basolata” was situated at the very edge of the inhabited area of the city, constituting the termination of one of the main avenues, which ran from the centre of the city. The fact that a city gate was situated at Casa Bianca in the Roman period strongly indicates that this was the city limit

<sup>64</sup> The earliest known building with a roof span reaching 25 m is the Agrippan Odeion in Athens, built ca 15 BCE (Thompson 1950, 55, 89). The previous record was held by the Bouleuterion in Priene from ca 200 BCE, spanning ca 14.5 m (Lawrence 1957, 274; Adam 1994, 209).

<sup>65</sup> Zancani Montuoro 1974, 75. D. Mertens, although following the interpretation of Guzzo rather than that of Zancani Montuoro, still accepted that the paved area was enclosed by strong walls (Mertens 2006, 437).

in previous periods as well. The construction of a (new) city wall in the 2nd century CE (“lungo muro”) probably meant a reduction of the city area to the north, and perhaps also to the west and south, compared to the original colony of Thourioi.<sup>66</sup> This, however, could not be the case at Casa Bianca, since there are no traces of habitation outside “struttura est”. Rather, the presence of tombs in “area basolata”, dating from the 1st century BCE, indicates that the *pomerium*, at that time, did not pass through “struttura est” but a small distance to the west.

If we accept that the borders around the paved area are wall foundations, we can get a sense of the building just by imagining the walls in elevation (Fig. 4): “Area basolata” then becomes a courtyard enclosed by sturdy walls on three sides but open towards the east. It is impossible to say whether the construction of “struttura est” might have obliterated all traces of an original wall on the east side,<sup>67</sup> but lacking evidence of such a wall, we may assume that there was none. Towards the west, on the other hand, there were two parallel walls ca 5 m apart, forming a structure of its own.

The layout is compatible with Classical and Hellenistic courtyard gates (Figs. 5–6).<sup>68</sup> The military concept behind

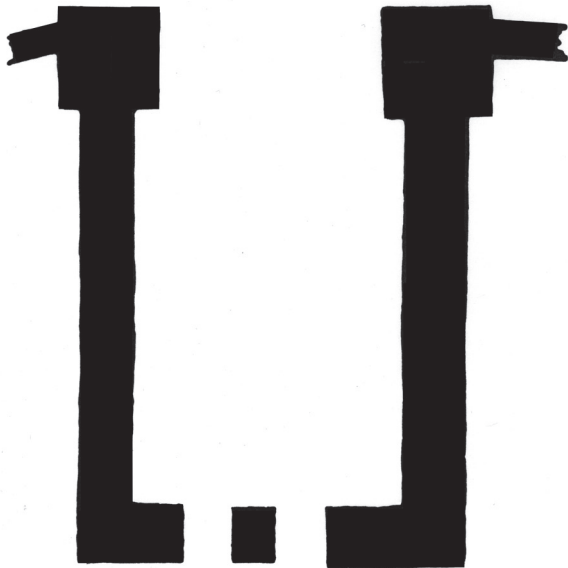


Fig. 5. Ideal plan of courtyard gate with axis of court extending perpendicularly inward from line of trace (after Winter 1971, 222, fig. 223).

<sup>66</sup> Cf. Castagnoli 1973.

<sup>67</sup> Cf. Sibari V, 154.

<sup>68</sup> This kind of arrangement is also known as a “gate with forecourt” or “porta a tenaglia” (see Winter 1971, 214–215, 223–228; Lawrence 1979, 317–330; Adam 1982, 85–90; Karlsson 1989, 83; Adam 1992; Karlsson 1998).

these gates is to protect the vulnerable gateway by withdrawing it from the line of the wall, and cover the approach with flanking walls and towers. In effect, a “killing zone” is created in front of the gates. The best known example of a courtyard gate is perhaps the Dipylon gate in Athens (Fig. 6a). This gate is believed to go back to the 470s BCE, but the fully developed layout has been dated to 307 BCE.<sup>69</sup> Other parallels can be found in Peiraieus (470s BCE?), Neandrea (early 4th century BCE), Mantinea (ca 371 BCE), Messene (ca 369 BCE), Philippi (soon after 358 BCE), Megara Hyblaia and Syracuse (both probably between 344 and 338 BCE), Halai (before 336 BCE), Stratos (soon after 314 BCE), Lokroi Epizephyrioi (second half of 4th century BCE or early 3rd), Tyndaris (first half of the 3rd century BCE), Castiglioni di Paludi (probably 3rd century BCE).<sup>70</sup>

The walled area at Casa Bianca, according to this hypothesis, would have constituted a deep indentation into the city circuit, with a gatehouse at its inner end. The open end would have been flanked by one or two circular towers.<sup>71</sup> The suggested holes for capstans in the inner wall are instead holes for pivots and door frames. Thus, we can conclude that it was a double gate and reconstruct the position and approximate width of each gate (ca 3.3 m). Rub marks on the west stone border, noted by Zancani Montuoro, are consistent with wear from wheeled traffic passing through the gate, and their location fits perfectly with the position of the northern gateway (cf. Fig. 4).<sup>72</sup> The slope of the pavement can easily be explained as a way of securing the drainage of the courtyard area, leading water away from the gatehouse and the walls. The channels in the pavement may also be associated with drainage. Possibly they held a lattice of timbers, which facilitated the laying of stones at a constant gradient and was removed after the work was finished.

The size of the courtyard is notable: 24 × 24 m. This is larger than most courtyard gates, but only half the size of the Dipylon gate in Athens (ca 24 × 42 m).<sup>73</sup> The foundations of the lateral walls measure 1.65 and 1.85 m respectively,<sup>74</sup> or 1.75–1.90 m.<sup>75</sup> If the stone borders constituted the footing of the wall, the width of the actual walls might have been even less: 1.5–1.7 m. Compared, for example, to walls of the Dipy-

<sup>69</sup> Winter 1971, 214; Lawrence 1979, 321.

<sup>70</sup> Most courtyard gates were open at the outward end, whereas some were closed by an additional stretch of wall, joining the flanking towers/corners. Occasionally, open courtyards were closed at a later stage (see Winter 1971, 227; Lawrence, 1979, 326).

<sup>71</sup> M. Kleibrink (2001, 38) mentions two flanking round buildings (i.e. towers) in his review article, but without any further references.

<sup>72</sup> Zancani Montuoro 1974, 78.

<sup>73</sup> The courtyard gate at Philippi measured 19.8 × 17.2 m and that at Stratos 21 × 14 m (Lawrence 1979, 319).

<sup>74</sup> Measured by the author from the plan.

<sup>75</sup> According to Zancani Montuoro (1974, 75).

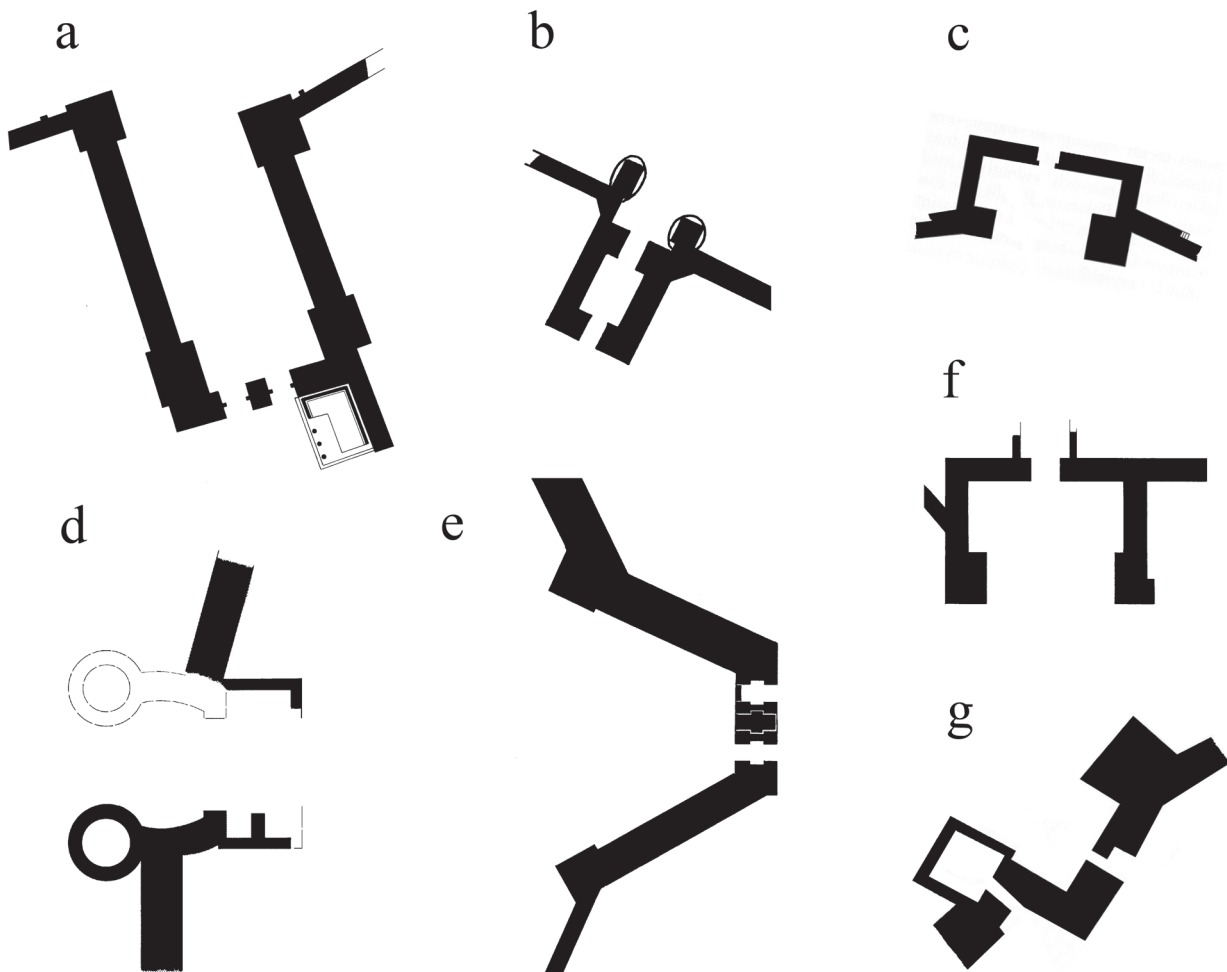


Fig. 6. Schematic plans of courtyard gates in a) Athens (Dipylon gate; after Adam 1982, 88, fig. 52), b) Peiraius (Asty gate; after Adam 1982, 88, fig. 53), c) Neandreaia (Main gate; after Lawrence 1979, 318, fig. 62), d) Mantinea (Gate A; after Adam 1982, 89, fig. 55), e) Syracuse (Euryalos gate; after Adam 1982, 86, fig. 50), f) Stratos (South gate; after Adam 1982, 89, fig. 54), g) Kaulonia (North-west gate; after Lawrence 1979, 341, fig. 78). Plans are not drawn to same scale.

lon gate in Athens (ca 5 m), the walls at Thourioi were thin.<sup>76</sup> However, there are some parallels: the curtain walls at Herakleia Minoa in Sicily, for example, were only 1.10 m wide.<sup>77</sup> Possibly, this indicates an early date in the 4th century BCE, before the development of powerful siege engines.<sup>78</sup> On the other hand, the walls along the seafront would not have been susceptible to direct attacks by machines of war, and the later-

al walls of the courtyard were further protected by their acute angle. The back wall (the front of the gatehouse) was sturdier: ca 2.5 m thick. The width of the lateral walls, although diminutive, still allows for a wall height of at least 8 m.<sup>79</sup> The gallery of the walls (*parodos*) could have been carried partly by internal supports according to the *ikria* system.<sup>80</sup> The shallow depth of the stone borders, 30–40 cm,<sup>81</sup> might originally

<sup>76</sup> The city wall of the Roman period (“lungo muro”) was also relatively thin, only about 2 m. If it was raised on the socle/foundations of an earlier wall, as suggested by E. Carando (1999, 175), it would be consistent with the dimensions of the courtyard gate.

<sup>77</sup> Winter 1971, 143. For further examples, see Garlan 1974, 346.

<sup>78</sup> Cf. Karlsson 1989, 79.

<sup>79</sup> The most likely reconstruction would be stone socles carrying mud-brick walls. For a discussion on wall height, see Lentini, Blackman & Pakkanen 2008, 308f.

<sup>80</sup> Winter 1971, 143. Cf. the south addition to the walls of Gela (Karlsson 1989, 82).

<sup>81</sup> *Sibari* V, 524.

have obscured their true function as foundations for defensive walls. In many cases Greek wall foundations were carried down to a substantial depth in order to reach bedrock. On thick layers of alluvial deposits, however, this would have been both impossible and unnecessary. This kind of bedding is so stable that there was no need for independent foundations other than a broad footing, most of which might have risen above ground.<sup>82</sup>

The courtyard gate and the adjoining circular tower(s) seem to have been built in the 4th century BCE, or the beginning of the 3rd century at the latest (see above). The treatment of blocks (drafted margins) in the circular structure possibly implies a date in the late 4th or early 3rd century BCE, and can perhaps to be associated with Agathokles.<sup>83</sup> By 282 BCE, at the latest, Thourioi must have had a defensive wall. Otherwise the city would not have endured a siege before it was relieved by C. Fabricius Luscinus that year. The inscription that was found on “area basolata”, which mentions the restoration of a gate, also strongly indicates that there was a gate there before “struttura est” (if the inscription originally belongs to this site).<sup>84</sup>

A Late Classical or Early Hellenistic courtyard gate implies a contemporary city wall, of which no traces have yet been found. This problem is common also to the city gate from the late 1st century BCE (“struttura est”), and has already been addressed. It has been suggested that the Roman wall from the 2nd century CE was built on the foundations of an earlier city wall, at least in the area of Casa Bianca.<sup>85</sup> Another possibility is that the superstructure of the earlier wall was built of mud-bricks, which had long since disappeared, and that the stone socle was retrieved and reused as revetment blocks in “lungo muro”.

In most ancient cities tombs and sepulchral buildings can be found lining the access roads right up to the gates. Common to both Greek and Roman communities, however, was the religious prohibition against intramural burials.<sup>86</sup> The fact that there were tombs inside the Roman gate (“struttura est”) implies that the previous gate was situated further back. In other words: the sepulchres could have been erected within the courtyard area but still be located outside the actual

gate.<sup>87</sup> The fact that one tomb (T.3<sup>s</sup>) is located inside the presumed gatehouse, overlying the western border of “area basolata”, shows that the gate building itself must have been demolished at the time. However, this might not have affected the perception of the city boundary. According to Zancani Montuoro “area basolata” fell into disuse about 300 BCE and was purposely covered by half a metre of earth.<sup>88</sup> This statement finds no support in the preliminary excavation reports (*Sibari* I–V). As already noted, however, the back wall of the courtyard gate (i.e. the gatehouse) must have been dismantled by the end of the 1st century BCE. Zancani Montuoro suggested that the blocks from the walls of the “shipshed” were reused in the later city gate, “struttura est”, which is quite plausible.

## Conclusions

It has already been stated that the identification of the so-called “area basolata” in the Casa Bianca area at Thourioi as a shipshed is probably wrong. The very slight gradient of the pavement and the wide span between the lateral walls of the structure is further evidence against such an interpretation. Instead, I would argue that Casa Bianca was the location of a city gate already from the 4th or early 3rd century BCE, and interpret “area basolata” as the remains of a so-called courtyard gate. The circular structure, which was found in connection with “area basolata”, most likely formed a part of these defences, as it displays drafted margins which are typical for this period. Courtyard gates (or “gates with forecourts”) appear frequently in the 4th and 3rd centuries BCE and two parallels can be found at sites close to Thourioi: Lokroi Epizephyrioi and Castiglione di Paludi. In the latter case the courtyard is flanked by a circular tower (6 m in diameter), the lower courses of which also have drafted margins.<sup>89</sup>

In view of the size of the courtyard and the meticulously laid pavement, other purposes for the layout of the gate, apart from purely military, should also be considered. The courtyard area could be a place for customs control and taxation, just as P.G. Guzzo suggested. Regardless of the exact location of the harbour, this would probably have been one of the gates that let sea-borne trade in and out of the city. The confined area would make it easy to monitor the flow of goods, but there would still have been ample space for traffic in both directions. There were also other reasons to separate the city

<sup>82</sup> Lawrence 1979, 202–203. Cf. e.g. the walls of Mantinea, which had no foundations.

<sup>83</sup> Karlsson 1989, 81–82.

<sup>84</sup> *Supra* n. 42.

<sup>85</sup> Carando 1999, 175. “Lungo muro” is now generally viewed as originating from the late 1st century BCE (Greco *et al.* 2006, 823.)

<sup>86</sup> It can be argued that the limit for burials (*pomerium*) was an independent boundary, but in an overwhelming majority of cases, this would coincide with the city wall. Of course, there were also exceptions to the rule against intramural burials, but they would not involve plain tombs.

<sup>87</sup> Cf. Perge and Tyndaris where sepulchral buildings were also erected inside courtyard gates. I am indebted to Lars Karlsson, who brought this to my attention.

<sup>88</sup> Zancani Montuoro 1974, 75.

<sup>89</sup> Neutsch 1956; Leriche & Tréziny 1986, figs. 27–28.

(*asty*) from the harbour, related to the attitudes that the Greeks had on harbours and the threat of foreignness associated with them.<sup>90</sup> The paved area would have been a natural marshalling place for religious processions<sup>91</sup> and other activities that, for various reasons, had to be conducted outside the city limits. The size of the gate sets it apart from most other courtyard gates and might imply connections to the Dipylon gate in Athens, which had almost the same width.

HENRIK GERDING  
Department of Archaeology and Ancient History  
Lund University  
Box 117  
SE-221 00 LUND  
henrik.gerding@klass.lu.se

## Bibliography

- Adam 1982 J.-P. Adam, *L'architecture militaire grecque*, Paris 1982.
- Adam 1992 J.-P. Adam, 'Approche et défense des portes dans le monde hellénisé', in *Fortificationes antiquae*, eds. S. Van de Maele & J.M. Fossey, Amsterdam 1992, 5–41.
- Adam 1994 J.-P. Adam, *Roman building: materials and techniques*, transl. A. Mathews, Bloomington 1994 (Paris 1984).
- Blackman 1977 D.J. Blackman, 'Review of Zancani Montuoro, 1972/73', *IJNA* 6:4, 1977, 357–359.
- Blackman & Rankov forthcoming *Shipsbeds of the ancient Mediterranean*, eds. D. Blackman & B. Rankov, forthcoming.
- Bonnier 2008 A. Bonnier, 'Epinea kai limenes: the relationship between harbours and cities in ancient Greek texts', *Opuscula. Annual of the Swedish Institutes at Athens and Rome* 1, 2008, 47–61.
- Carando 1999 E. Carando, 'Sibari-Thuri: note per una revisione dei dati', *AnnArchStorAnt*, n.s. 6, 1999, 165–176.
- Castagnoli 1973 F. Castagnoli, 'Ancora sull'urbanistica di Thurii', *PP* 28, 1973, 220–222.
- Garlan 1974 Y. Garlan, *Recherches de poliorcétique grecque*, Paris 1974.
- Greco & Luppino 1999 E. Greco & S. Luppino, 'Ricerche sulla topografia e sull'urbanistica di Sibari-Thuri-Copiae', *AnnArchStorAnt*, n.s. 6, 1999, 115–164.
- Greco *et al.* 2006 E. Greco, S. Luppino, G. Leo, L. Danile, M.G. Tofi, T. Granese, M. Saporiti & L. Mercuri, 'Sibari 2004', *ASAtene* 82, 2004 (publ. 2006), 823–840.
- Greco *et al.* 2008a E. Greco, S. Luppino, L. Gasparri, L. Mercuri, M. Rocco, B. Pisani, S. Marino, A. Corrales, M. Sangineto, L. Danile, M.G. Tofi, M.T. Granese, A. Polosa, P. Vitti, O. Voza & A. D'Amico, 'Sibari 2005. Campagna di scavo a Casa Bianca. Settembre–dicembre', *ASAtene* 83, 2005 (publ. 2008), 1001–1066.
- Greco *et al.* 2008b E. Greco, S. Luppino, M. Rocco, M. Sangineto, S. Marino, G. Marginesu, A. Corrales & A. D'Amico, 'Sibari 2006. Campagna di scavo a Casa Bianca. Aprile–settembre', *ASAtene* 84, 2006 (publ. 2008), 1025–1094.
- Guzzo 1973 P.G. Guzzo, 'Scavi a Sibari', *PP* 28, 1973, 278–314.
- Guzzo 1974 P.G. Guzzo, 'I risultati degli scavi', in *Sibari, Thurii* (= *AttiMGrecia* 13–14, 1972–1973), eds. P. Zancani Montuoro & G. Pugliese Carratelli, Roma 1974, 35–45.
- Guzzo 1993 P.G. Guzzo, 'Sibari: materiali per un bilancio archeologico', in *Sibari e la sibiritide. Atti del trentaduesimo convegno di studi sulla Magna Grecia, Taranto-Sibari, 7–12 ottobre 1992*, Taranto 1993, 51–82.
- Hansen & Nielsen 2004 *An inventory of Archaic and Classical pol-eis*, eds. M.H. Hansen & T.H. Nielsen, Oxford 2004.
- Karlsson 1989 L. Karlsson, 'Some notes on the fortification of Greek Sicily', *OpRom* 17, 1989, 77–89.
- Karlsson 1998 L. Karlsson, 'La porta a tenaglia a Sicilia', in *Naxos: a quarant'anni dall'inizio degli scavi*, ed. M.C. Lentini, Naxos 1998, 109–113.

<sup>90</sup> Cf. Bonnier 2008.

<sup>91</sup> Cf. the Pompeion and the Panathenaic procession in Athens (Winter 1971, 214).

- Kleibrink 2001 M. Kleibrink, 'The search for Sybaris: an evaluation of historical and archaeological evidence', *BABesch* 76, 2001, 33–70.
- Lawrence 1979 A.W. Lawrence, *Greek aims in fortification*, Oxford 1979.
- Lentini, Blackman & Pakkanen 2008 M.C. Lentini, D. Blackman & J. Pakkanen, 'The shipsheds of Sicilian Naxos: a second preliminary report (2003–6)', *BSA* 103, 2008, 299–360.
- Leriche & Tréziny 1986 *La fortification dans l'histoire du monde grec*, eds. P. Leriche & H. Tréziny, Paris 1986.
- Mertens 2006 D. Mertens, *Städte und Bauten der Westgriechen*, München 2006.
- Neutsch 1956 B. Neutsch, 'Castiglione di Paludi', *AA* 1956, 306–316.
- Rainey 1969 F. Rainey, 'The location of Archaic Greek Sybaris', *AJA* 73, 1969, 261–273.
- Sibari I* P. Somella, *Sibari I* (= *NSc* ser. 8, 23, 1969 Supplemento 1), Roma 1971.
- Sibari II* P.G. Guzzo *et al.*, *Sibari II* (= *NSc* ser. 8, 24, 1970, Supplemento 3), Roma 1973.
- Sibari III* P.G. Guzzo *et al.*, *Sibari III* (= *NSc* ser. 8, 26, 1972, Supplemento), Roma 1974.
- Sibari IV* P.G. Guzzo *et al.*, *Sibari IV* (= *NSc* ser. 8, 28, 1974, Supplemento), Roma 1978.
- Sibari V* P.G. Guzzo *et al.*, *Sibari V* (= *NSc* ser. 8, 42–43, 1988–1989, Supplemento 3), Roma 1992.
- Winter 1971 F.E. Winter, *Greek fortifications*, Toronto 1971.
- Zancani Montuoro 1974 P. Zancani Montuoro, 'Uno scalo navale di Thurii', in *Sibari, Thurii* (= *AttiMGre-cia* 13–14, 1972–1973), eds. P. Zancani Montuoro & G. Pugliese Carratelli, Roma 1974, 75–79.