

# The Decapolis: History and Archaeology

## 5 Archaeology of the Roman period I - Urbanism, Fortifications, Public Spaces

SEGAL, A. 1997: *From Function to Monument: Urban Landscapes of Roman Palestine, Syria and Arabia*. Oxford.

# Urbanism

- Urban planning
- Spatial organization of the city (cityscape)
- Development of urban structures
- Interaction between inhabitants and the built environment

## Cities of Roman Levant

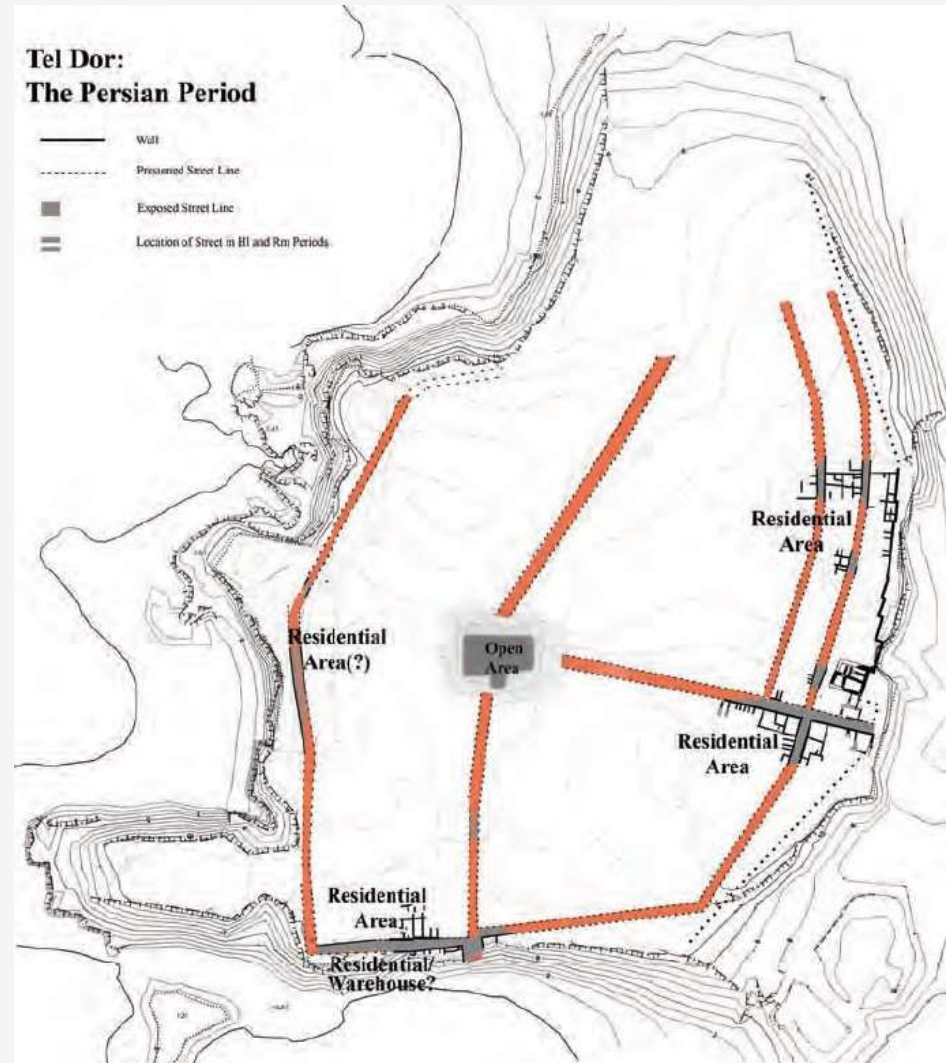
- City plan - street grid, insulae
  - Colonnaded streets
  - Agorai/fora
  - Functional division?
- 
- Origins, functions, meanings...



# Urbanism

## Cities of Roman Levant

- Hellenistic planning known only from limited examples
- Tenets of Hippodamian plan probably adopted
- But urban planning not unknown prior to the Hellenistic period
  
- Urban renewal in the Early Roman period
- The Early Roman city plans might give us idea about the Hellenistic origins (in some cases)
- Gradual development of the public space until the 4<sup>th</sup> c. CE



Tel Dor - Example of city with regular street grid (adapted to local topography of the tell) in the Persian and Hellenistic period

# Urbanism

## Hippos

- Limits of local topography



# Urbanism

## Hippos

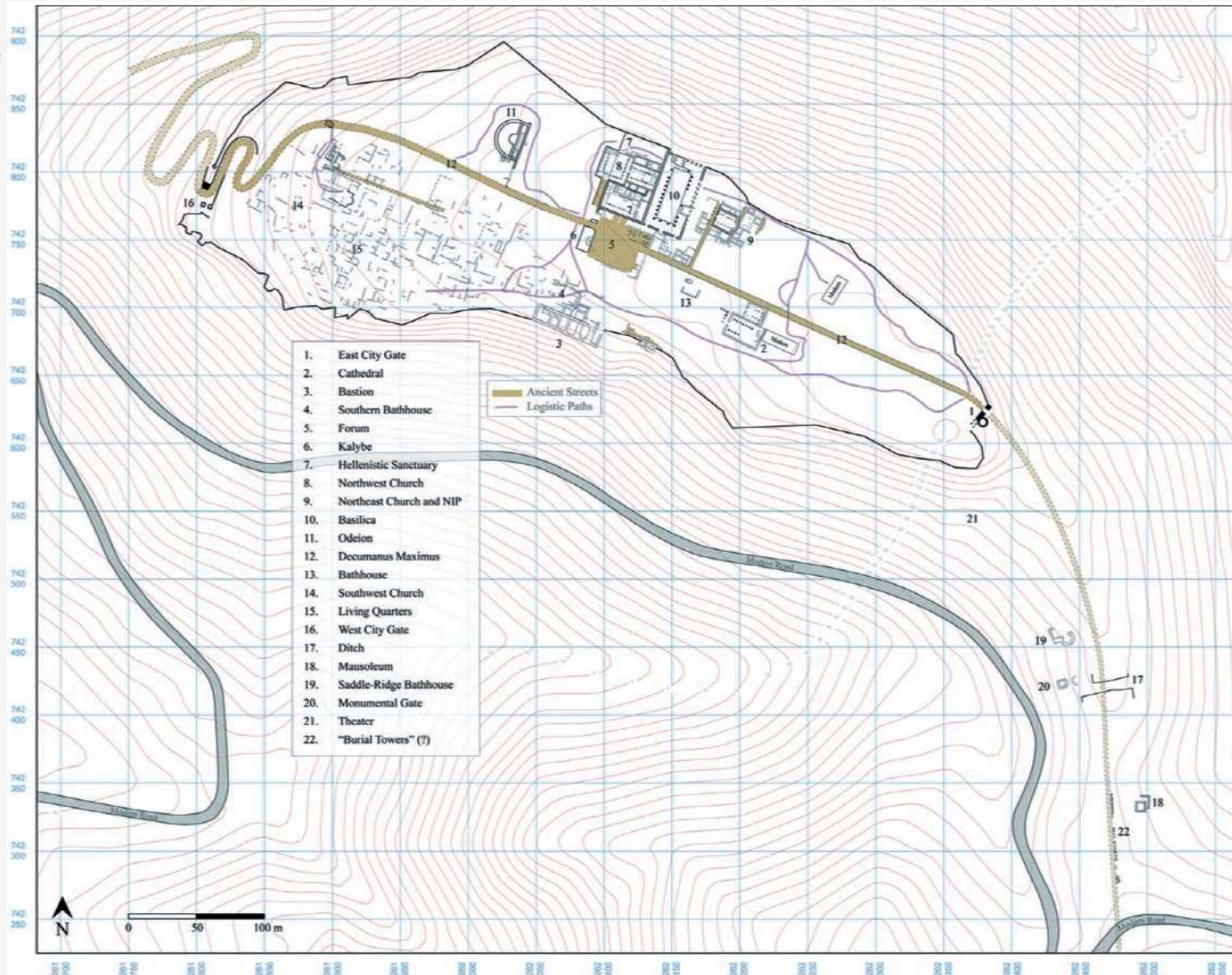
- Limits of local topography – narrow mountaintop extending east-west



# Urbanism

## Hippos

- *Decumanus maximus*  
(east-west street)  
500 m+
- Rectangular street plan
- Agora/forum



# Urbanism

## Hippos

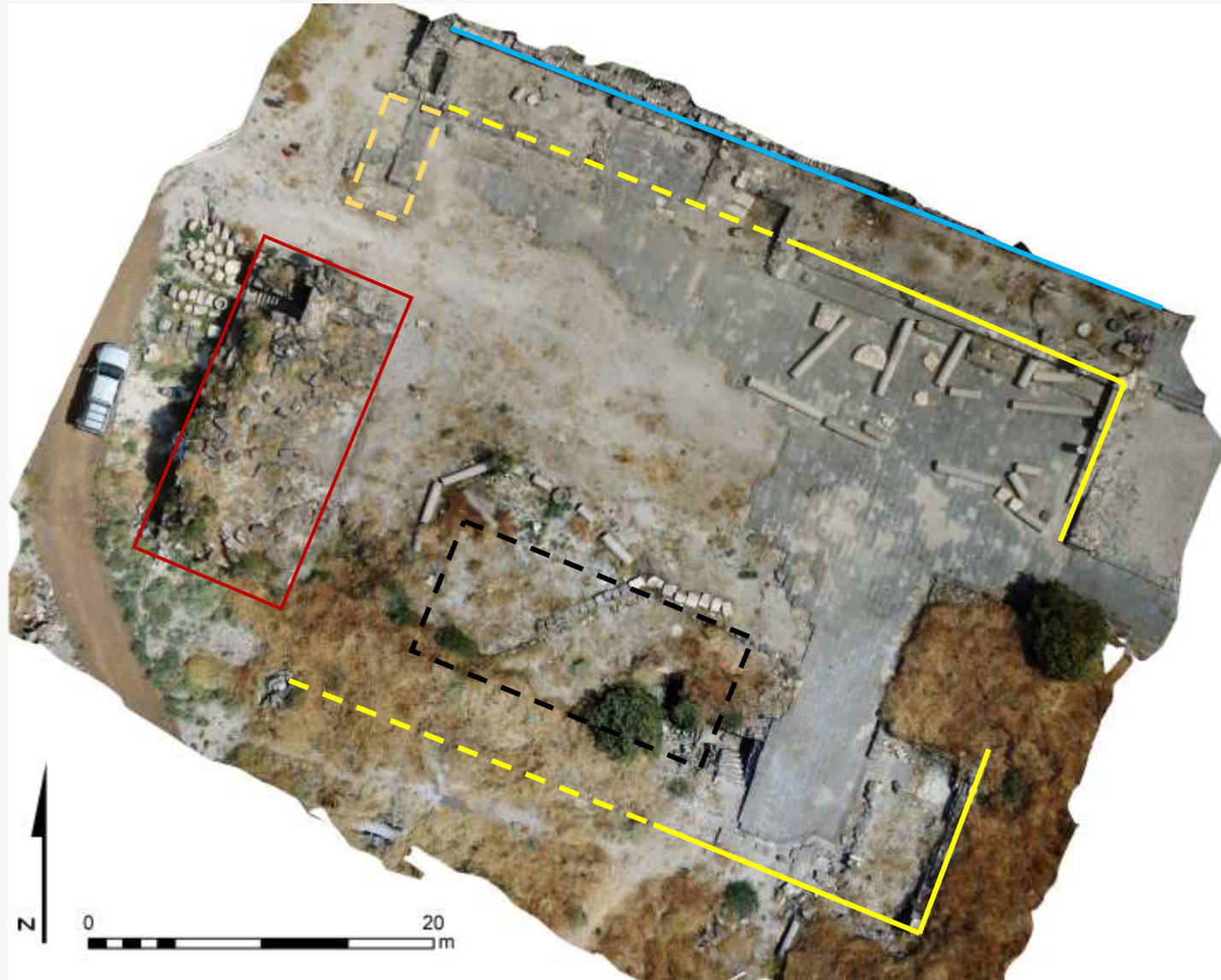
- "Civic centrum" – agora/forum with concentration of public buildings



# Urbanism

## Hippos

- Forum (50x38.5 m)
- Porticoes on three sides (yellow)
- Water reservoir (black)
- *Kalybe* (red)
- Arch next to kalybe? (orange)
- Blue - Hellenistic temenos
- Current form laid out in the early 1<sup>st</sup> c. CE
- Paved at the second half of the 1<sup>st</sup> c. CE
- Porticoes at the end of the 2<sup>nd</sup>/beginning of the 3<sup>rd</sup> c. CE





# Urbanism

## Hippos

- Forum
- Single-passage arch ca. 7 m to the east of the forum
- Possibly another at the west end of the forum



# Urbanism

## Hippos

- Forum
- Arch ca. 7 m to the east of the forum
- Possibly another at the western end of the forum



# Urbanism

## Hippos

- Forum
- Honorific inscriptions, podia for sculptures



# Urbanism

## Hippos

- *Decumanus Maximus*
- Basically same development and dating as the forum



# Urbanism

## Hippos

- *Decumanus Maximus*
- Eastern section ca. 4 m wide
- Some evidence for porticoes



# Urbanism

## Hippos

- *Decumanus Maximus*
- Western section ca. 5 m wide + 5 m portico (northern side)



# Urbanism

## Hippos

- *Decumanus Maximus*
- Western section ca. 5 m wide + 5 m portico (northern side)



# Urbanism

## Hippos

- *Cardines* (north-south streets)
- Western *cardo* remains ca. 3 m wide





# Urbanism

## Hippos

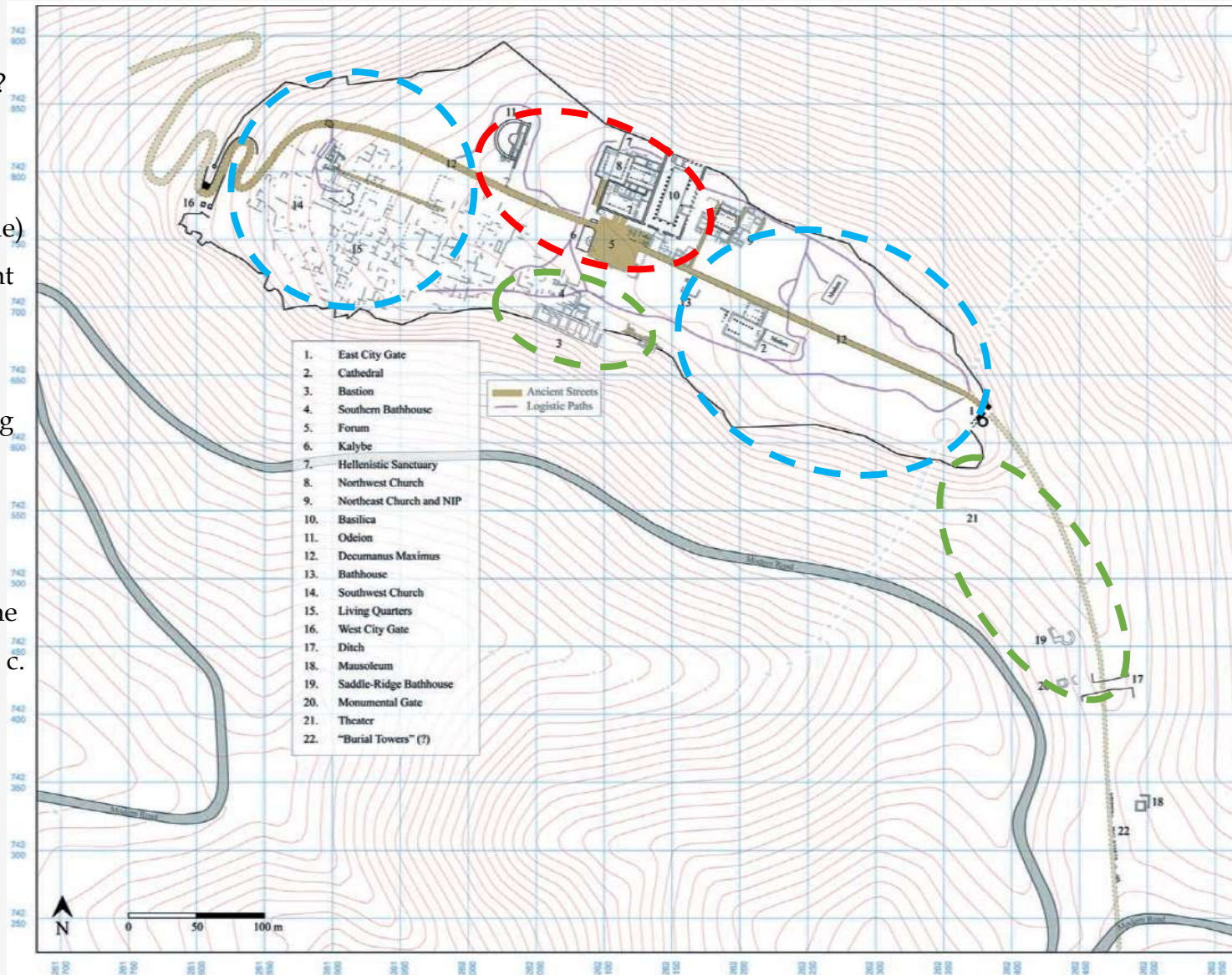
- *Cardines*
- Eastern C. (North-east Insula)



# Urbanism

## Hippos

- Functional division?
- "Civic center" (red)
- Living quarters (blue)
- Baths/entertainment (green)
- But commercial activity spread along the length of the decumanus
- City expansion in the beginning of the 2<sup>nd</sup> c. CE (Hadrian?)



# Urbanism

## Hippos

- City expansion in the beginning of the 2<sup>nd</sup> c. CE (Hadrian?) - Theater (+sanctuary?), baths



# Urbanism

## Hippos

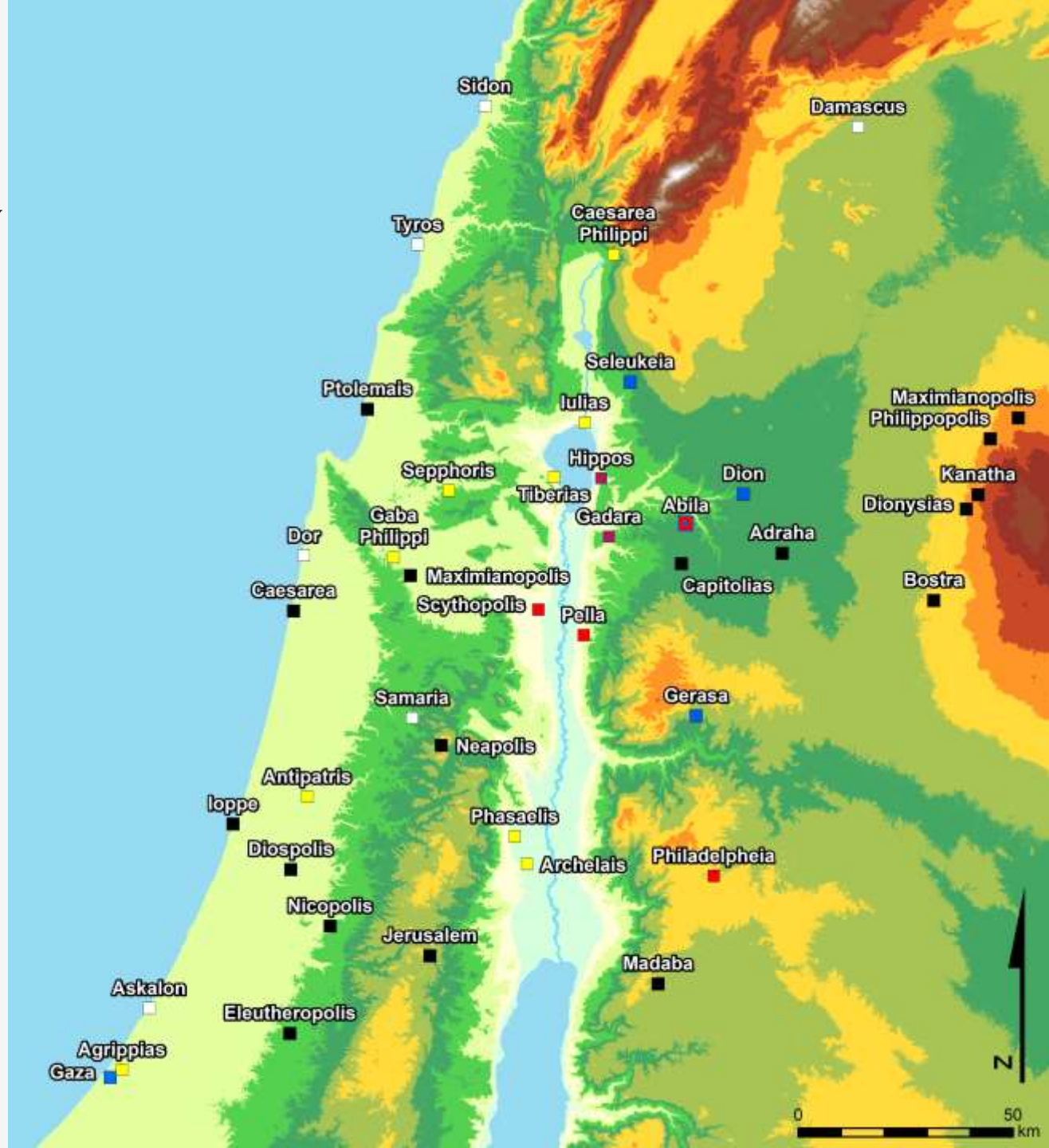
- City expansion in the beginning of the 2<sup>nd</sup> c. CE (Hadrian?) - Theater (+sanctuary?), baths



# Urbanism

## Other cities

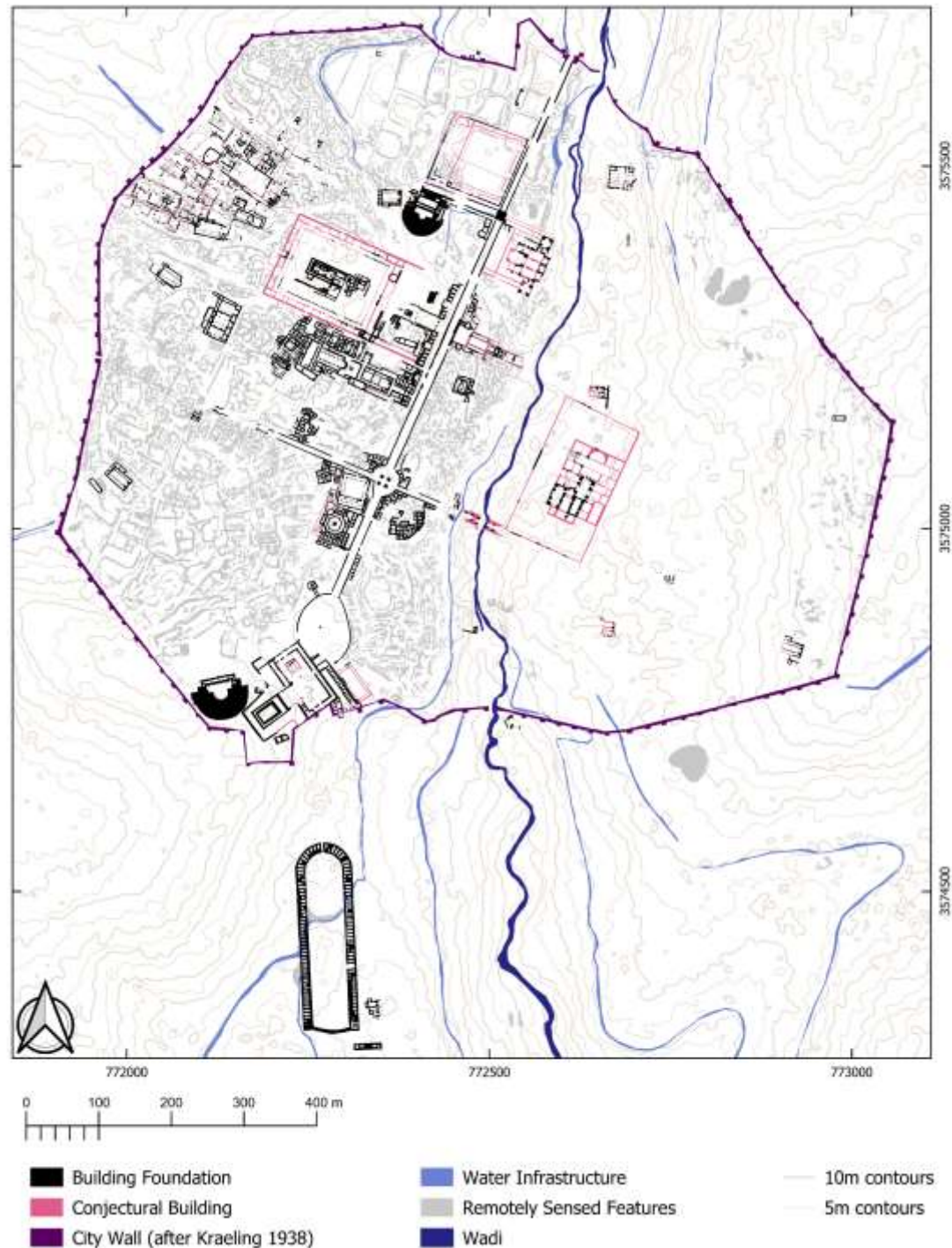
- Most of them expand massively compared to the Hellenistic settlement
- We may assume completely new urban plan in the Early Roman period
- Layout similar to Hippos
  - One major colonaded axis (cardo/decumanus)
  - One major public space/centre



# Urbanism

## Gerasa

- Oval plaza paved ca. 28 CE (new *naos* of Zeus)
- *Cardo* laid and paved in the late 1<sup>st</sup> c. CE
- Porticoes early 2<sup>nd</sup> c. CE - Ionic
- Widening between 150-180 CE (construction of the Temple of Artemis) - Corinthian
- Tetrapylon and Quadrifrons also 150-180 CE
- Circular plaza around southern tetrapylon - end of 2<sup>nd</sup>/early 3<sup>rd</sup> c. CE
- I.e. Hippodamian plan (*insulae*) late?
- Much of it can be connected to the visit of Hadrian in 129/130 CE



# Urbanism

## Gerasa

Left - beginning of the 2<sup>nd</sup> c. CE; right - end of the 2<sup>nd</sup> c. CE

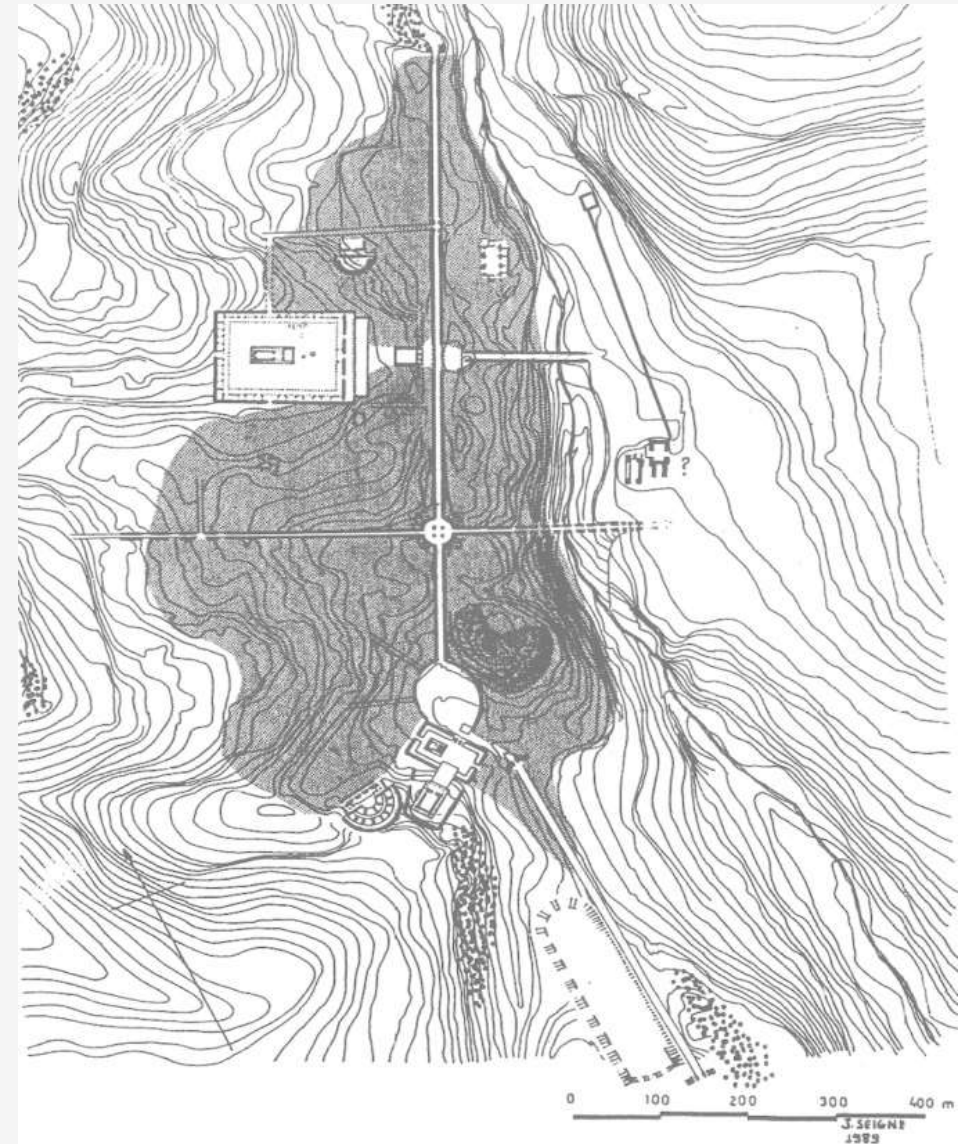


Fig. 1 — Gerasa. Organisation urbaine supposée vers 130 de notre ère

■ Extension supposé du domaine bâti  
■ Nécropoles

# Urbanism

## Gerasa

- Hadrian's arch
- 460 m south of the southern gate
- 37.5x21.5x9.25 m





# Urbanism

## Gerasa

- Oval plaza – probably core of the original Hellenistic settlement
- Current pavement 4<sup>th</sup> c. CE

Shape is pretty much atypical



# Urbanism

## Gerasa

- *Cardo maximus*
- Originally 5.4 m + 8 m; widened to 7.6 + 12 m (central section) and 11 + 12 (southern section)



# Urbanism

## Gerasa

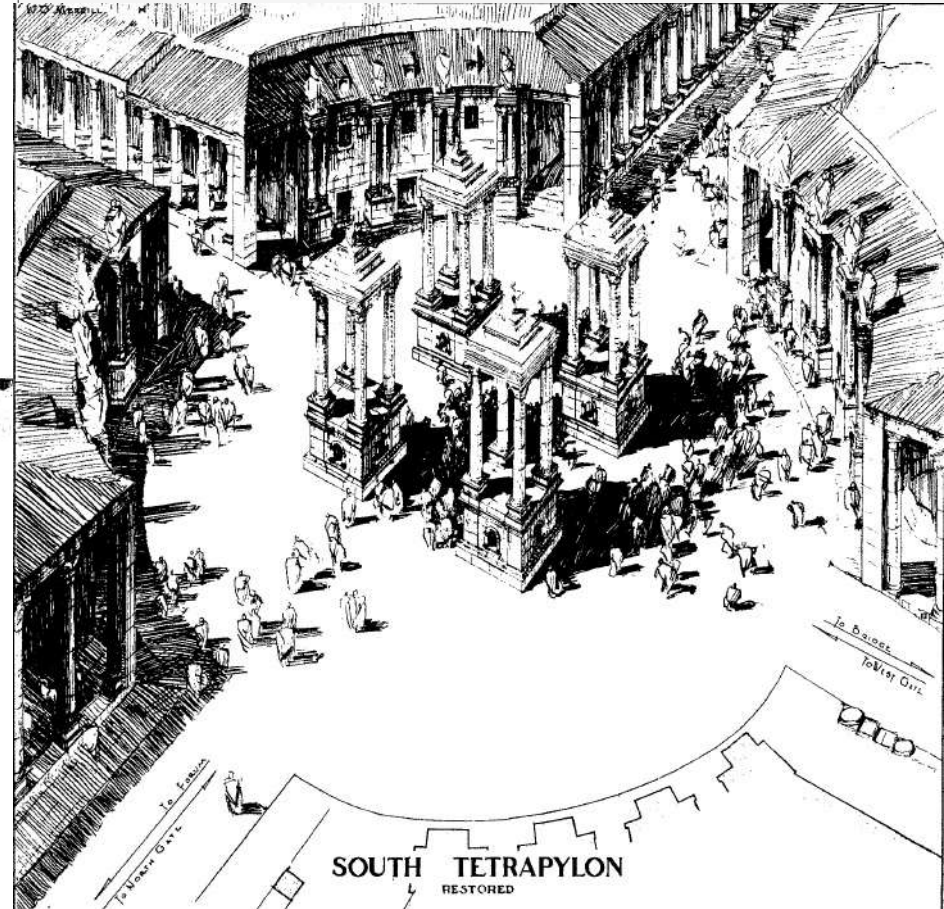
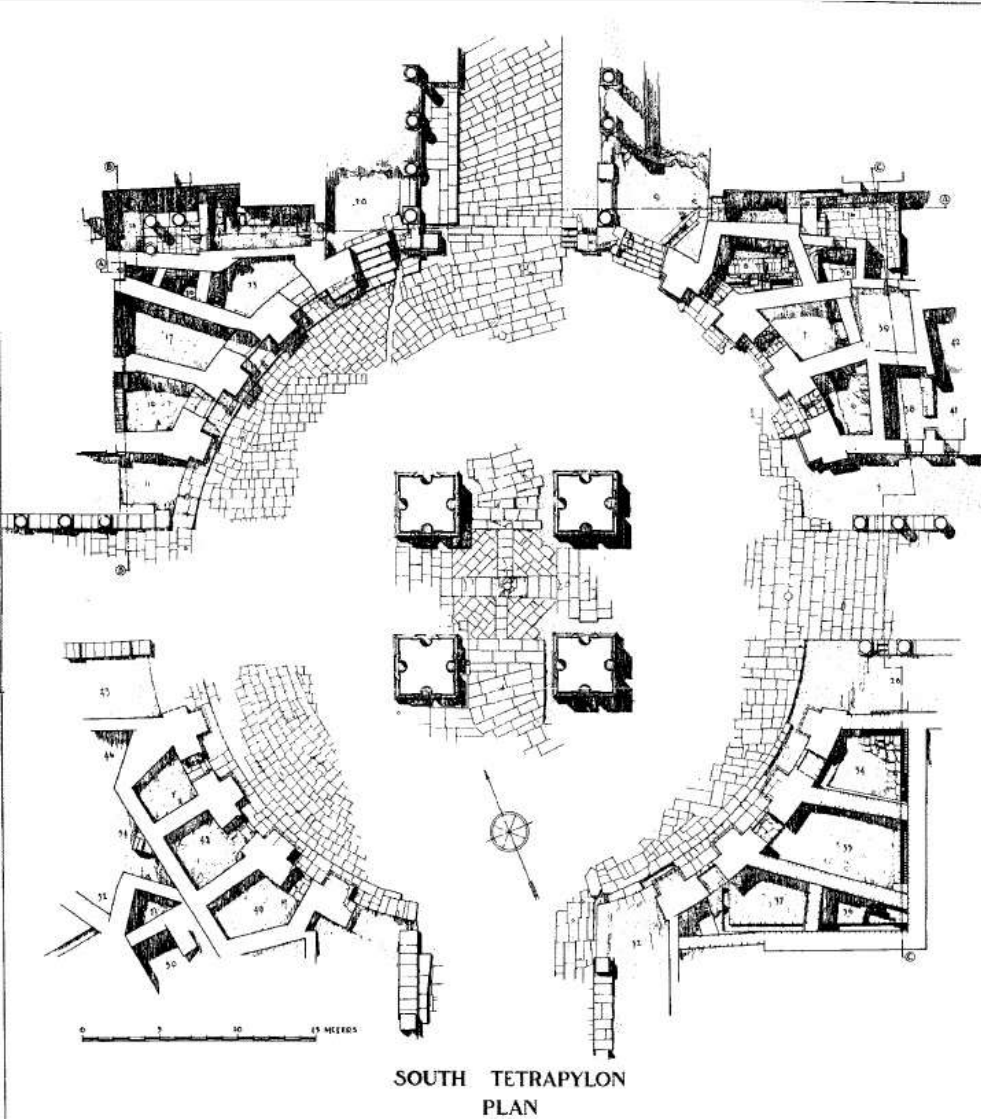
- *Tetrapylon* (on intersection of *cardo maximus* and southern *decumanus*)



# Urbanism

## Gerasa

- *Tetrapylon* (on intersection of *cardo maximus* and southern *decumanus*)



# Urbanism

## Gerasa

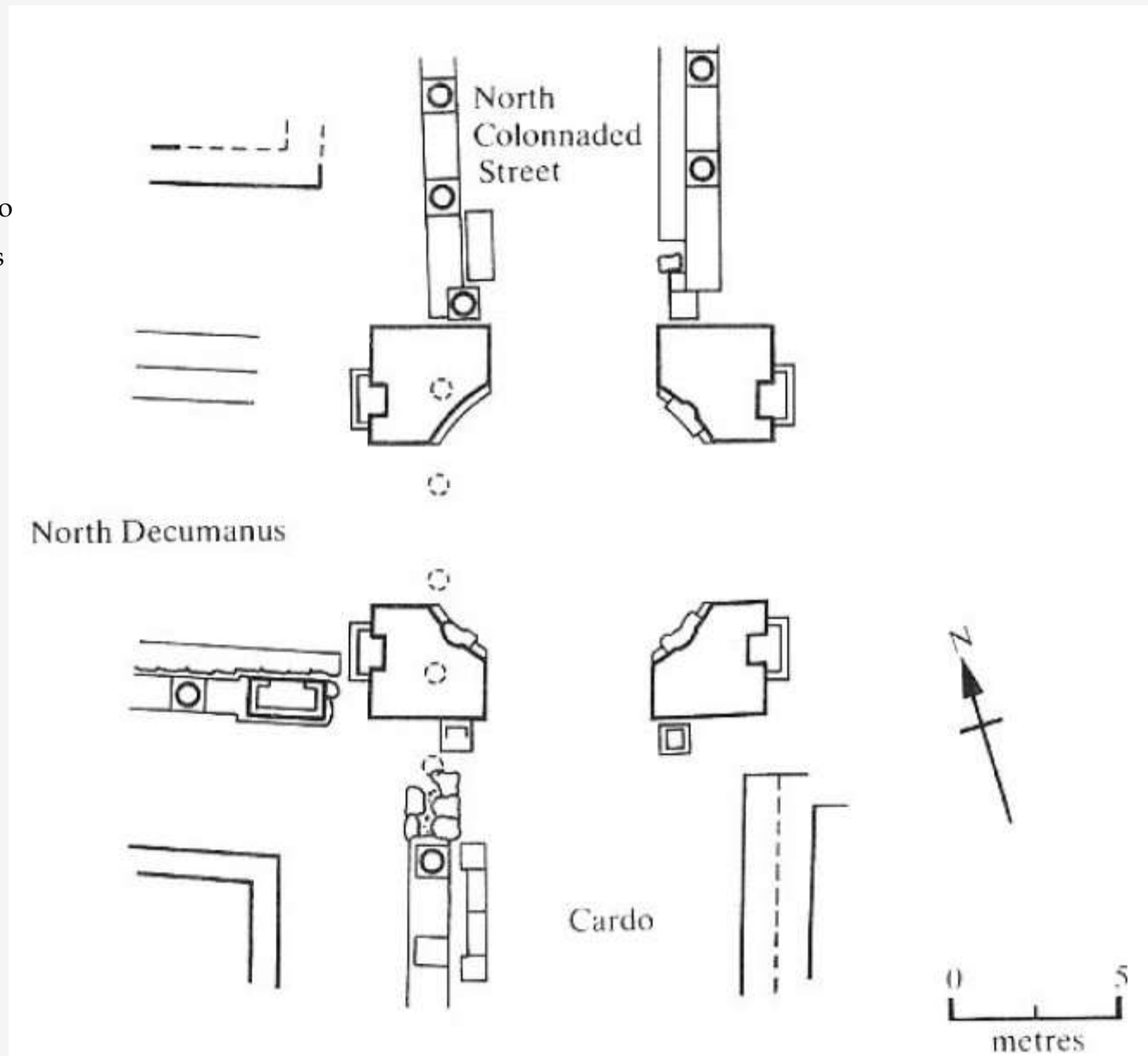
- *Quadrifrons*
- 5.5 m wide passages



# Urbanism

## Gerasa

- *Quadrifrons*
- 5.5 m wide passages
- Note the widening of the *cardo* to the south of the *quadrifrons*



# Urbanism

## Gerasa

- *Quadrifrons*
- 5.5 m wide passages



# Urbanism

## Gerasa

- *Decumani*
- Southern: 7+8 m; northern: 7.6+12 m      406 m distance

- Looking west along northern decumanus  
Northern theater on the left, agora/forum on the right

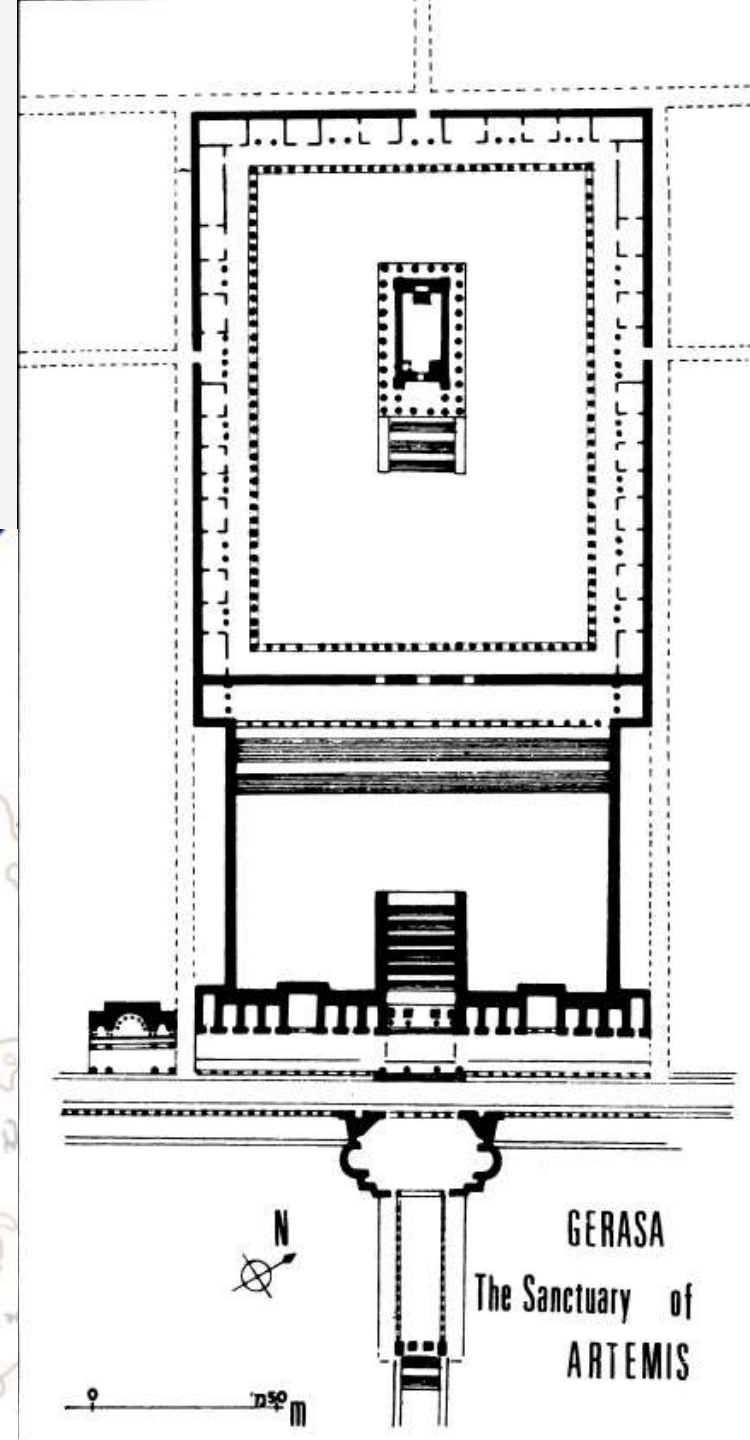
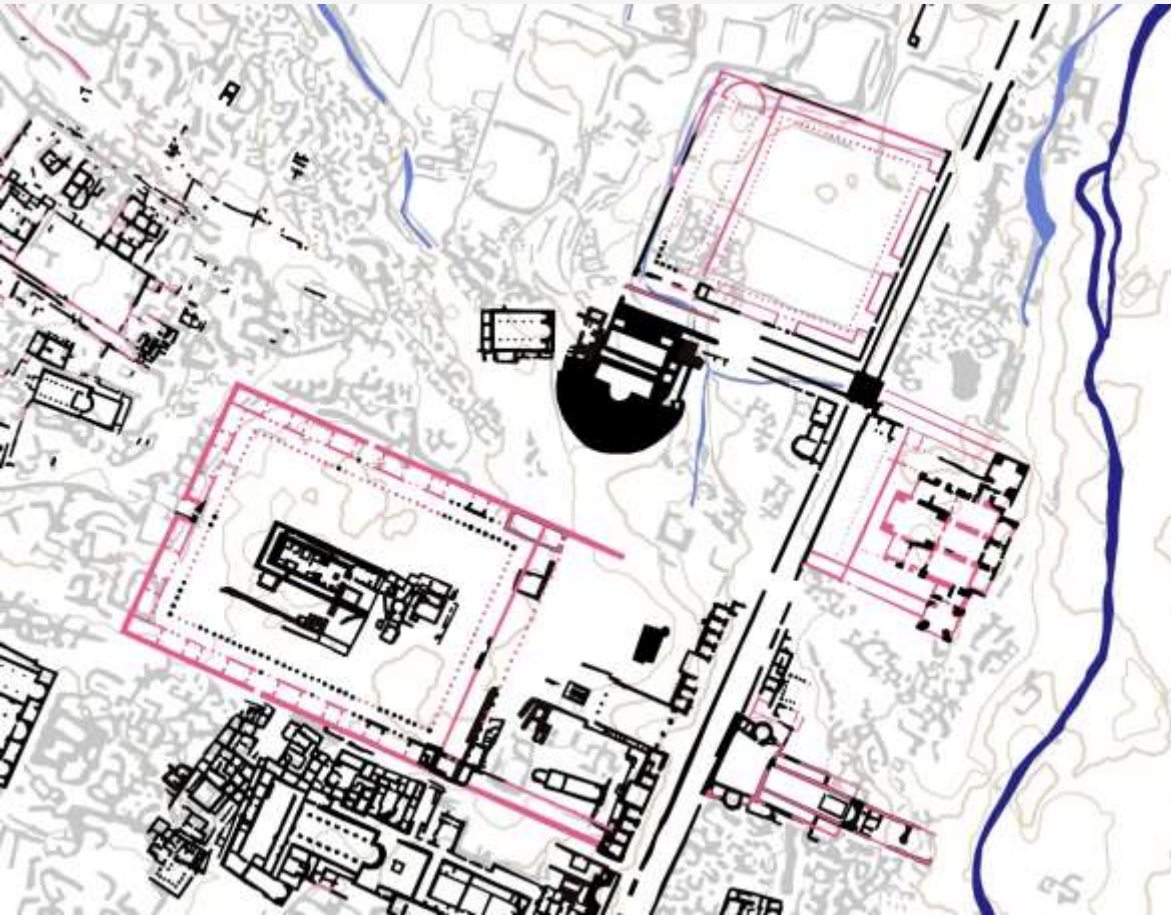




# Urbanism

## Gerasa

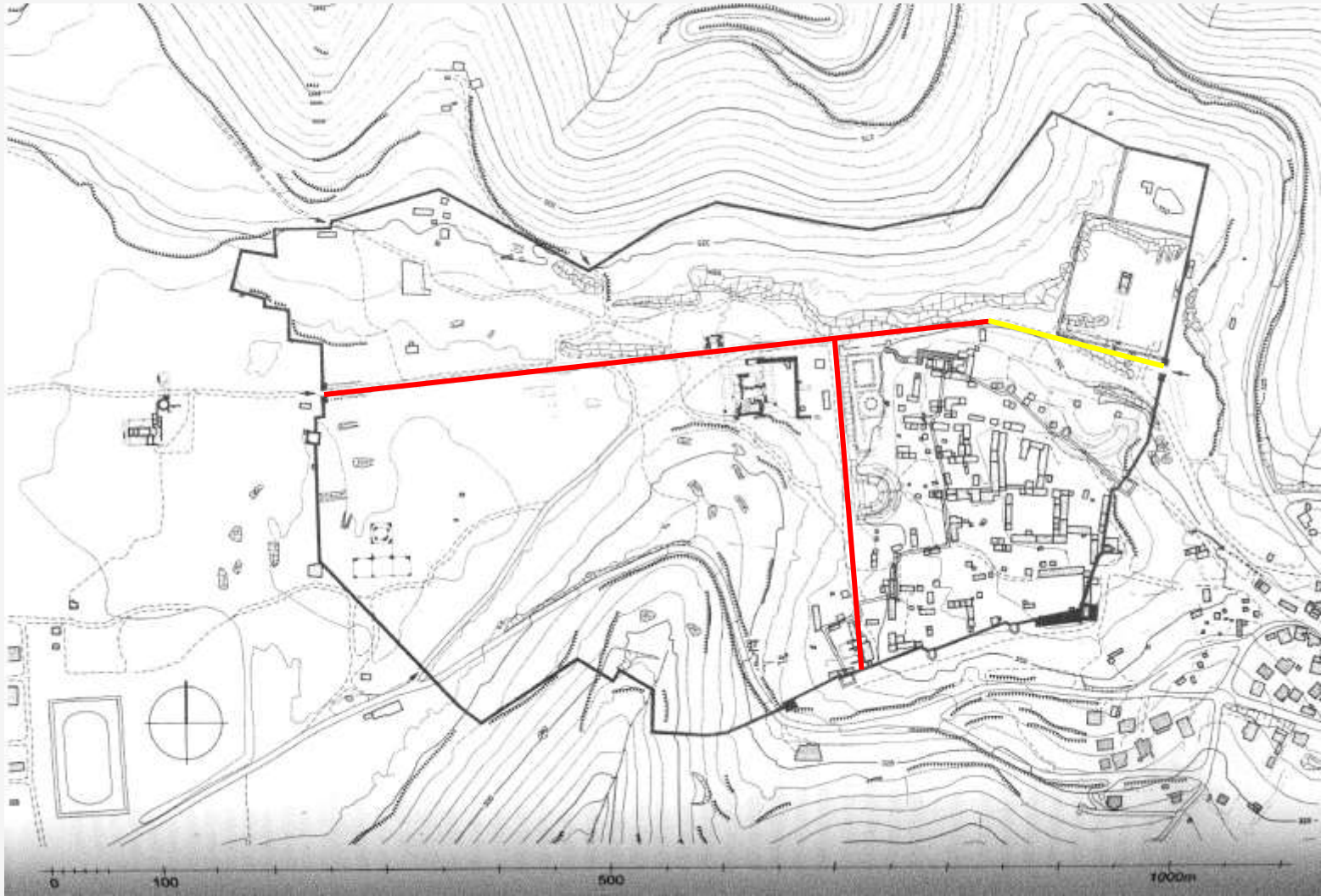
- Two new large public spaces
- Northern forum (with n. theater) + Temple of Artemis
- Integrated into the insular grid fabric of the city - the temple temenos is helping to create such cityscape



# Urbanism

## Gadara

- *Decumanus maximus* (ca. 750 m in Early Roman period), *cardo*
- Agora/forum?



# Urbanism

## Gadara

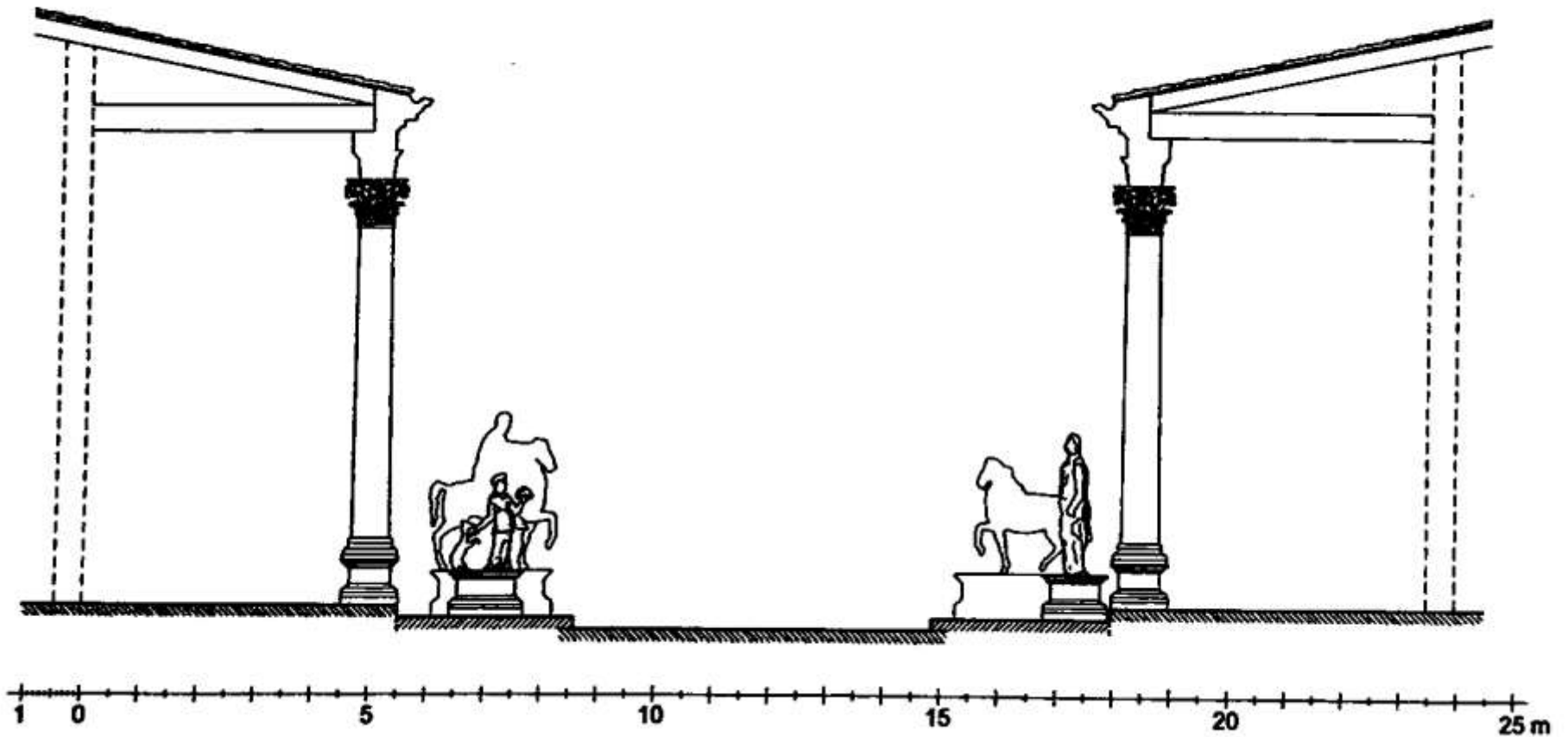
- *Decumanus maximus* 12.5 + 6 m, ca. Second half of the 1<sup>st</sup> c. CE, porticoes 2<sup>nd</sup> c. CE



# Urbanism

## Gadara

- *Decumanus maximus* 12.5 + 6 m, ca. Second half of the 1<sup>st</sup> c. CE, porticoes 2<sup>nd</sup> c. CE



# Urbanism

## Gadara

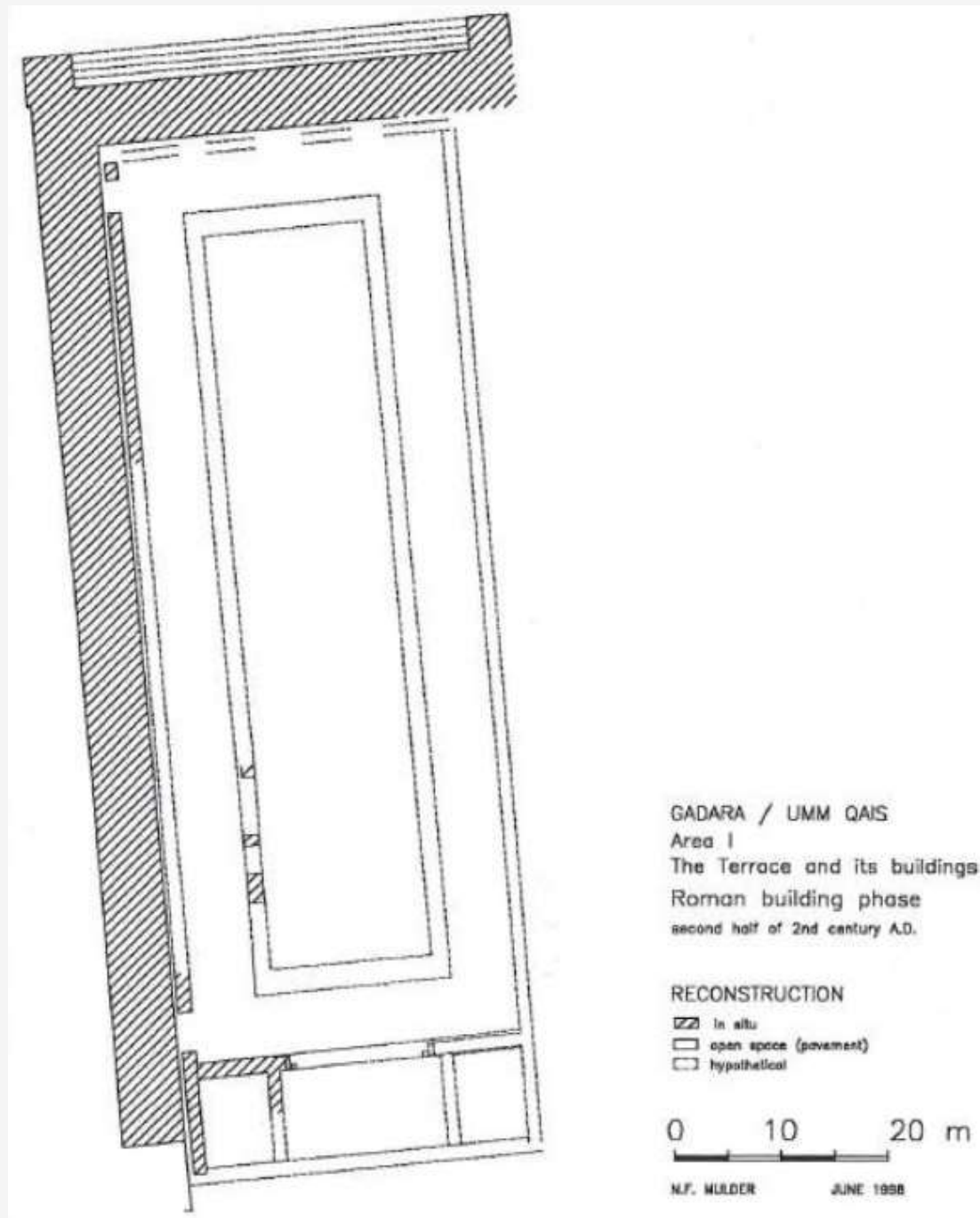
- Agora and basilica?
- Market street + "Church terrace"



# Urbanism

## Gadara

- Agora and basilica?
- Market street + "Church terrace" - 2<sup>nd</sup> c. CE
- Propylaeum of a temple on the Hellenistic acropolis?
- Basilica?



# Urbanism

## Gadara

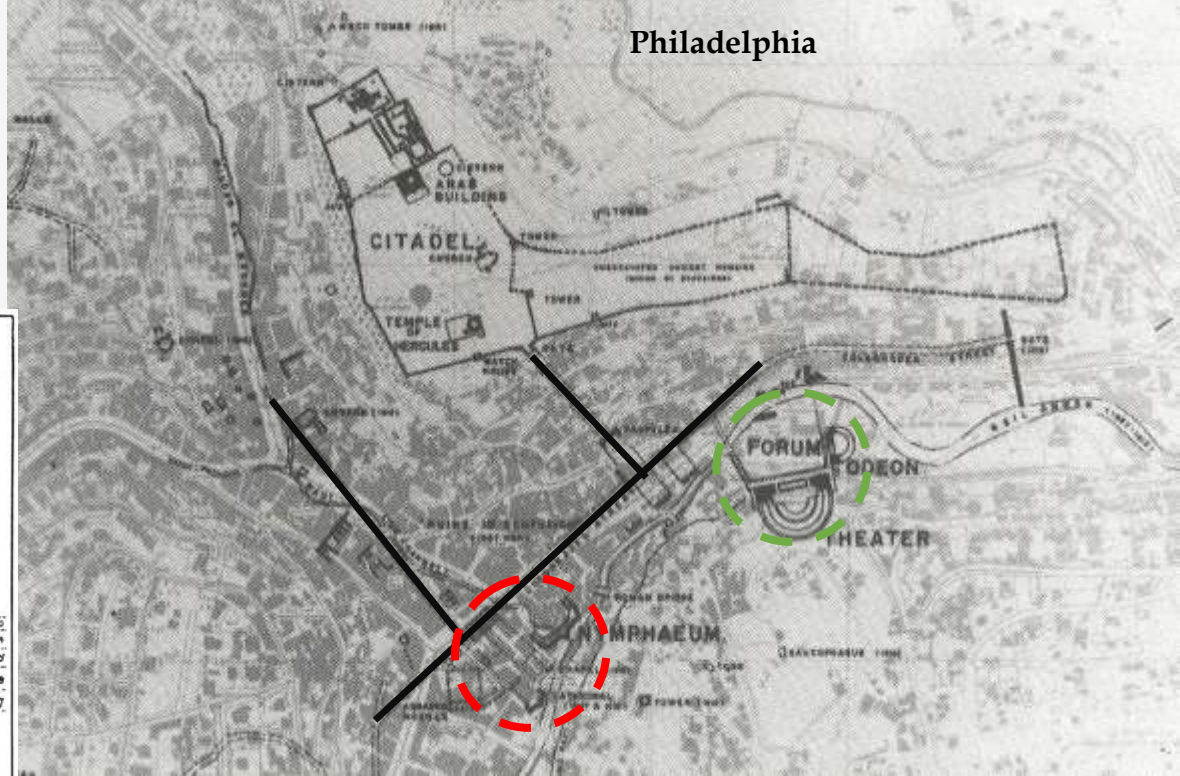
- Market street (*cardo maximus*) – foundation of the “church terrace”



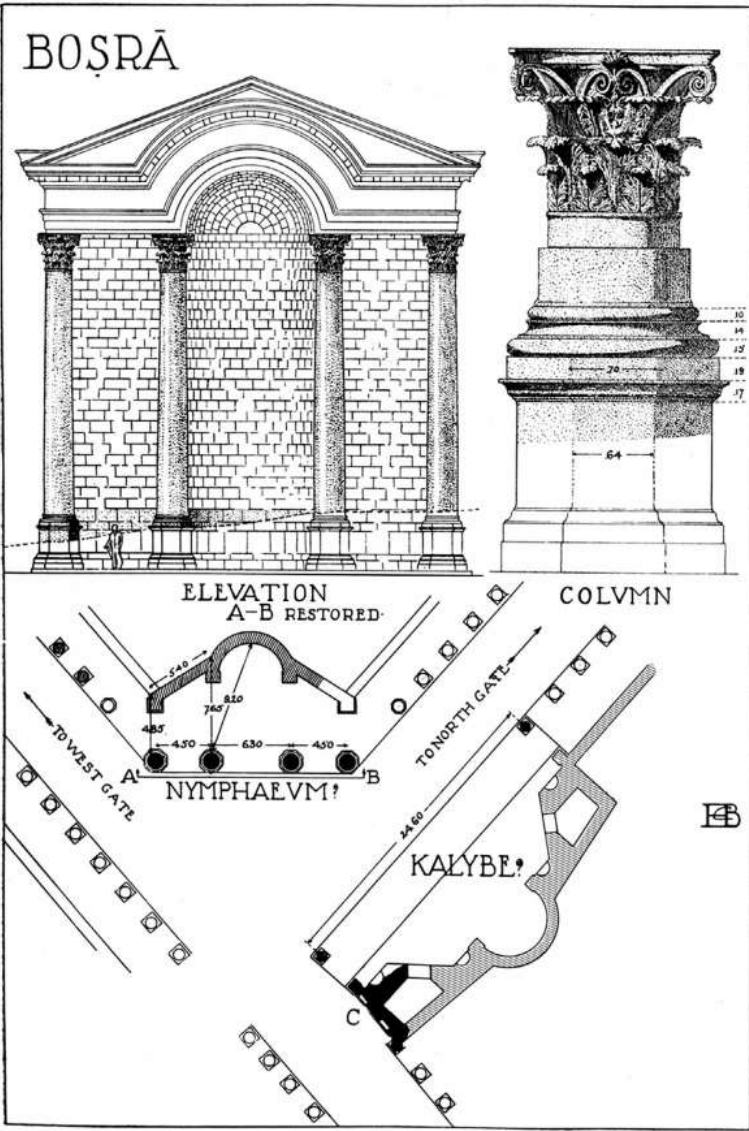
# Urbanism

## Other cities

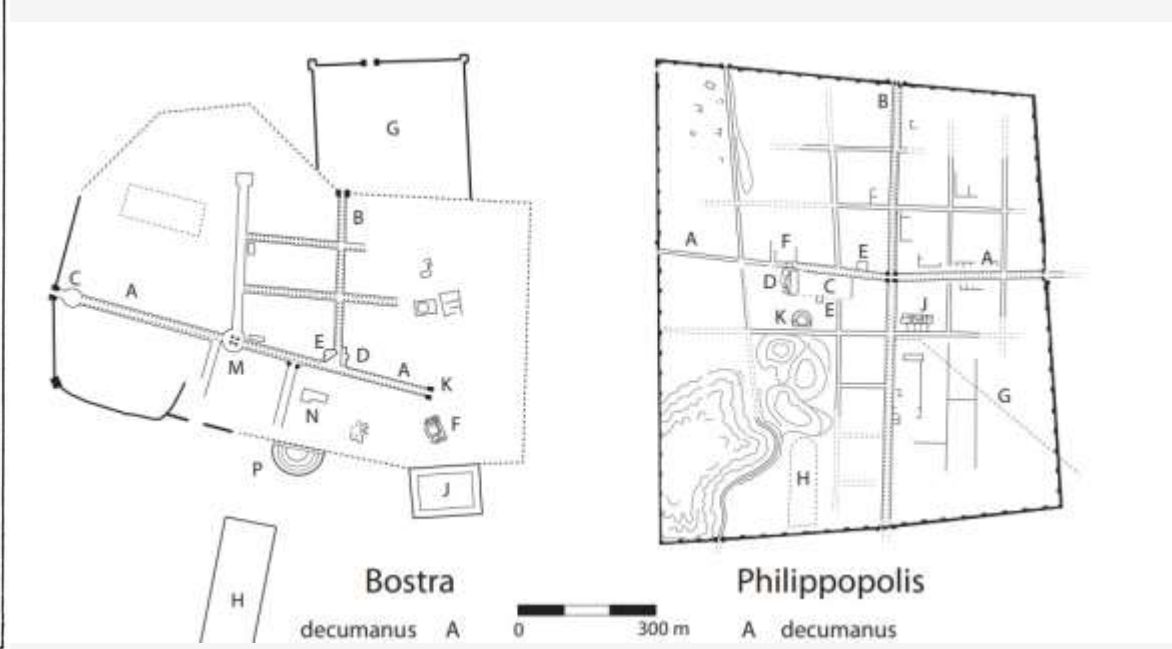
- Cardio + decumanus/axial configuration
- Irregular spaces - adaptability



Philadelphia



BOŞRA



Bostra

Philippopolis

decumanus A

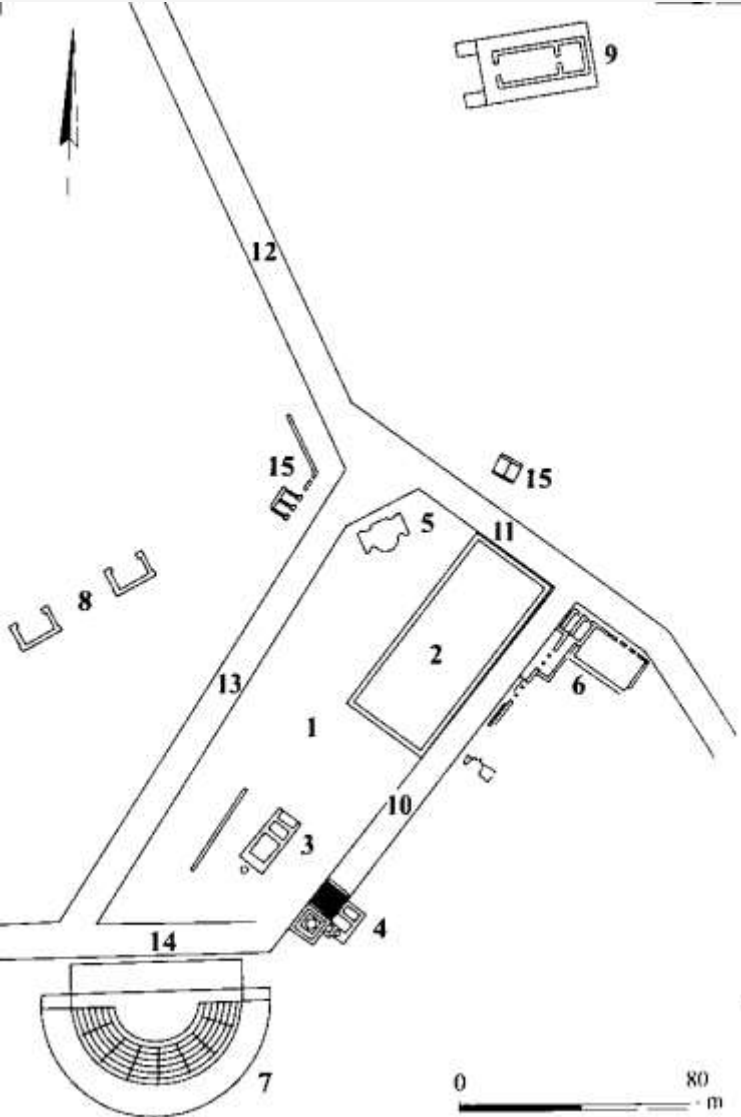
A decumanus



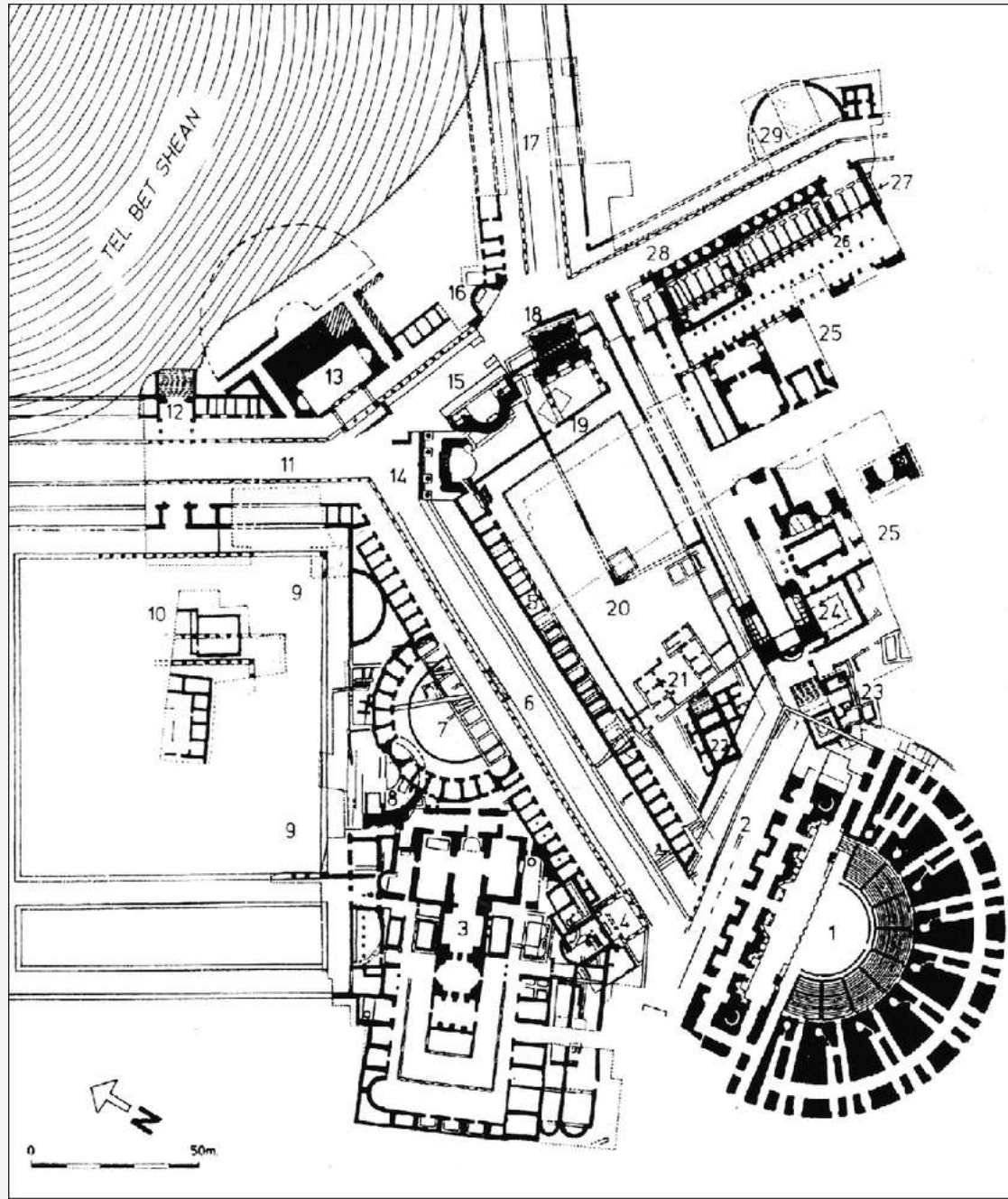
# Urbanism

## Other cities

- Cardo + decumanus/axial configuration
- Irregular spaces - adaptability



## Scythopolis



## Other cities

- Cardo + decumanus/axial configuration
- Irregular spaces - adaptability



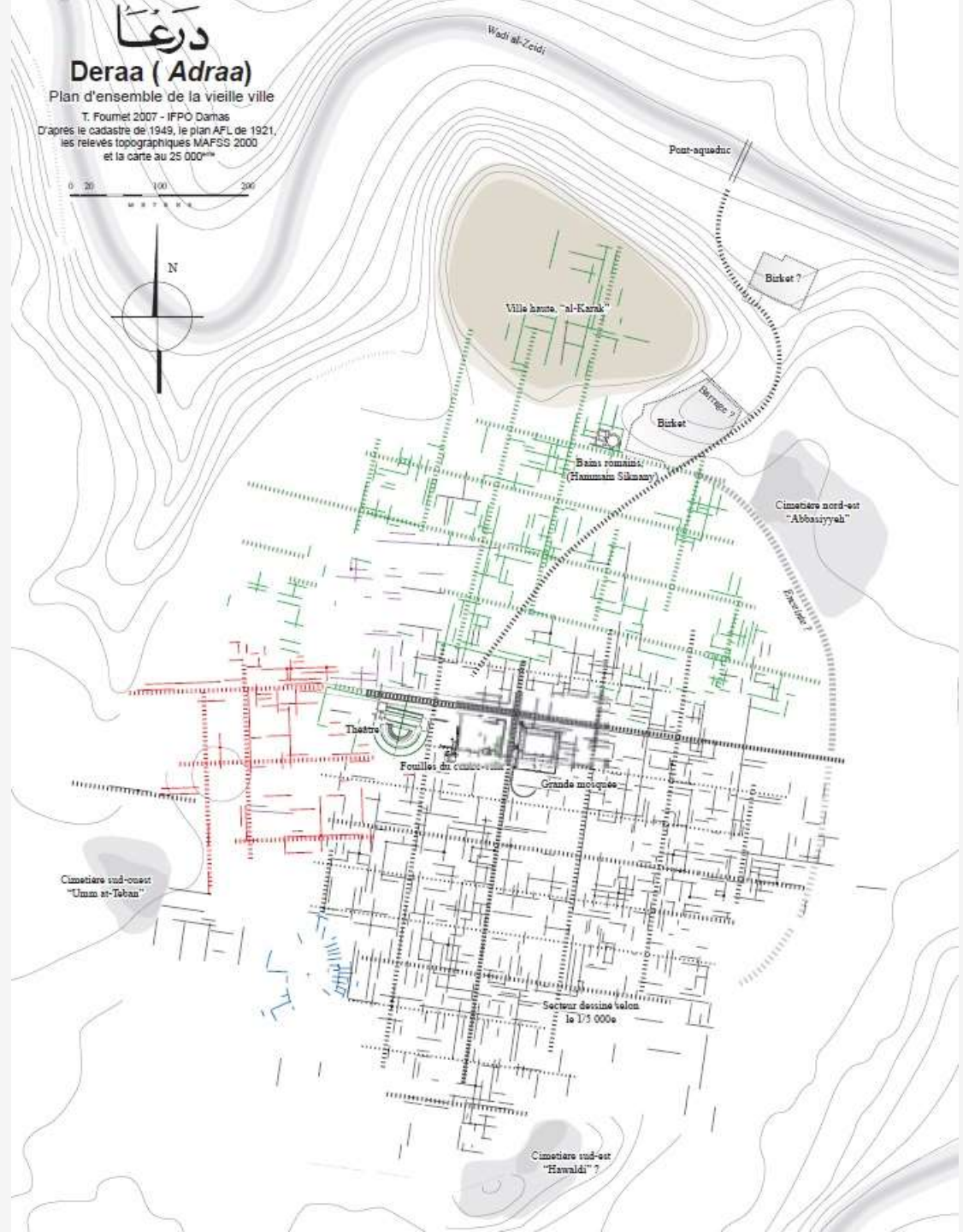
# Urbanism

## Other cities

- Complicated and long city evolution - superimposed plans/city expansion

### Adraha-Dera'

1. Hellenistic tell+town
2. Early Roman extension with new street grid (black)
3. Re-alignment of the Hellenistic town (green)
4. Later Roman addition (red)



# Urbanism

## In general

- 1<sup>st</sup> phase: late 1<sup>st</sup> c. BCE/early 1<sup>st</sup> c. CE – layout, some public buildings (Early Roman revival)
- 2<sup>nd</sup> phase: late 1<sup>st</sup> c. CE/early 2<sup>nd</sup> c. CE – paving, colonnades, more public buildings (Great Revolt-Hadrian)
- 3<sup>rd</sup> phase: late 2<sup>nd</sup> c. CE/early 3<sup>rd</sup> c. CE – reconstructions, expansions, additional public buildings (Severans)

## Origin of the colonnaded streets

- Greek/Roman – from *stoa/porticus*
- Ptolemaic/Egyptian – processional *dromos*
- Eastern?
- Local – climate

“And as for that large open place (*plateia*) belonging to Antioch in Syria, **did not he [i.e. Herod] pave it with polished marble**, though it were **twenty furlongs (*stadia*, ~3.6 km) long?** and this when it was shunned by all men before, because it was full of dirt and filthiness, when **he besides adorned the same place with a cloister (*stoa*) of the same length.**”

BJ 1.425

# Urbanism

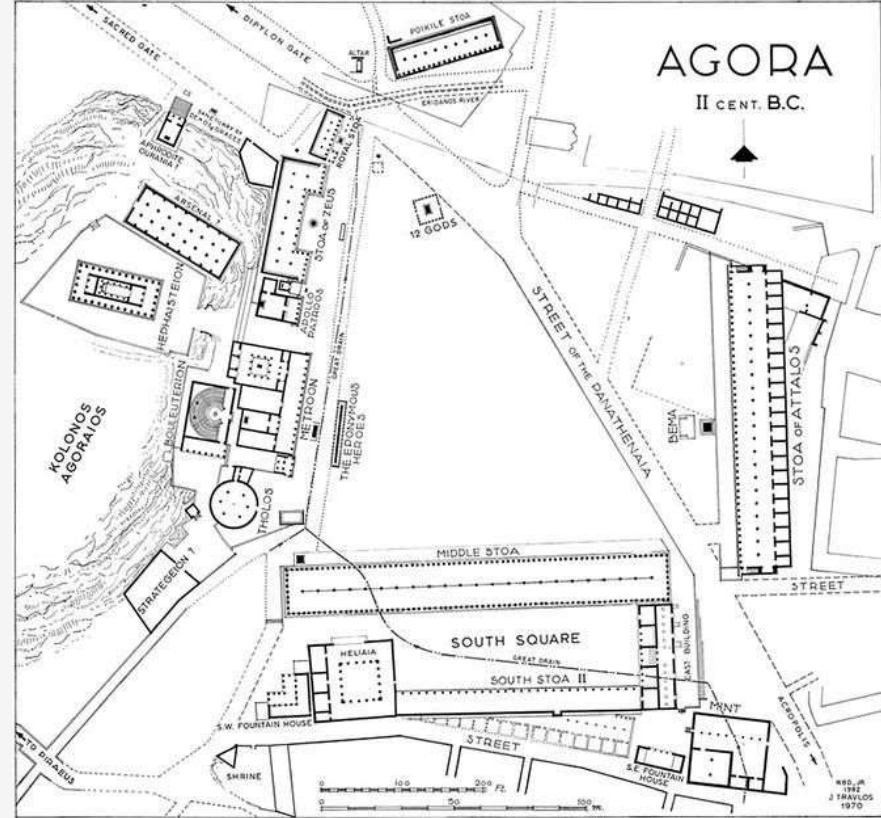
## Origin of the colonnaded streets

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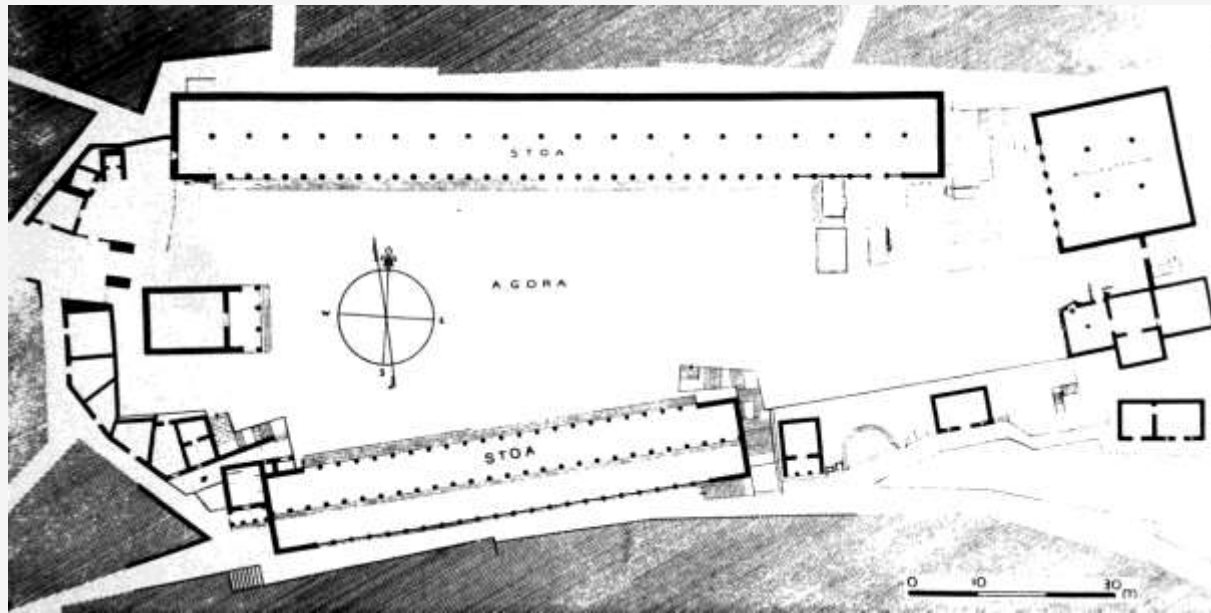
“The Greeks lay out their forums in the form of a **square surrounded by very spacious double colonnades**, adorn them with columns set rather closely together, and with entablatures of stone or marble, and construct walks above in the upper story...

Therefore let the intercolumniations round the show place be pretty wide; round about in the colonnades put the bankers' offices; and have balconies on the upper floor properly arranged so as to be convenient, and to bring in some public revenue.”

Vitruvius 5.1.1-2



Athens



Assos

# Urbanism

## Origin of the colonnaded streets

- Ptolemaic/Egyptian – processional *dromos*
- Alexandrian Canopus street?

“The shape of the site of the city is that of a chlamys or military cloak...The whole city is intersected by roads for the passage of horsemen and chariots. **Two of these are very broad, exceeding a plethrum (i.e. ~30 m) in breadth, and cut one another at right angles.**”

Strabo 17.1.8

(no mention of colonnades)



# Urbanism

## Origin of the colonnaded streets

- Local - climate
- Built also in North Africa and Asia Minor

Apamea - northern Syria



# Urbanism

## Origin of the colonnaded streets

- Local – climate
- Built also in North Africa and Asia Minor

Palmyra – Syrian Desert





# Public spaces/buildings

## *Basilica*

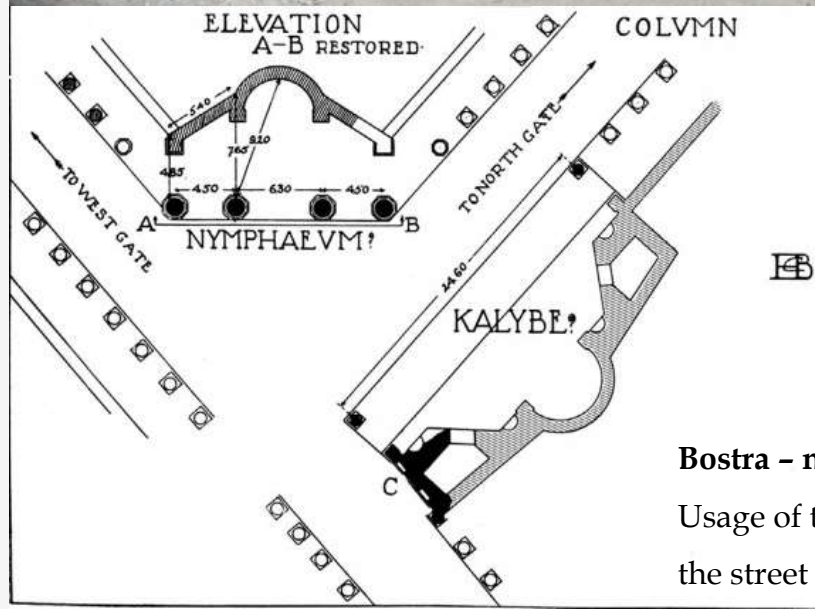
- Appears in the Early Roman period, slowly disseminates
- Purely Roman ("Vitruvian") form
- No *bouleuteria*, *stoai*, *prytaneia* or other Greek forms
- No Roman *curia*

## *Nymphaeum*

- Since 2<sup>nd</sup> c. CE
- "Theater" decoration
- Ornamental, decorative function, water only secondary function?



Hippodrome - basilica



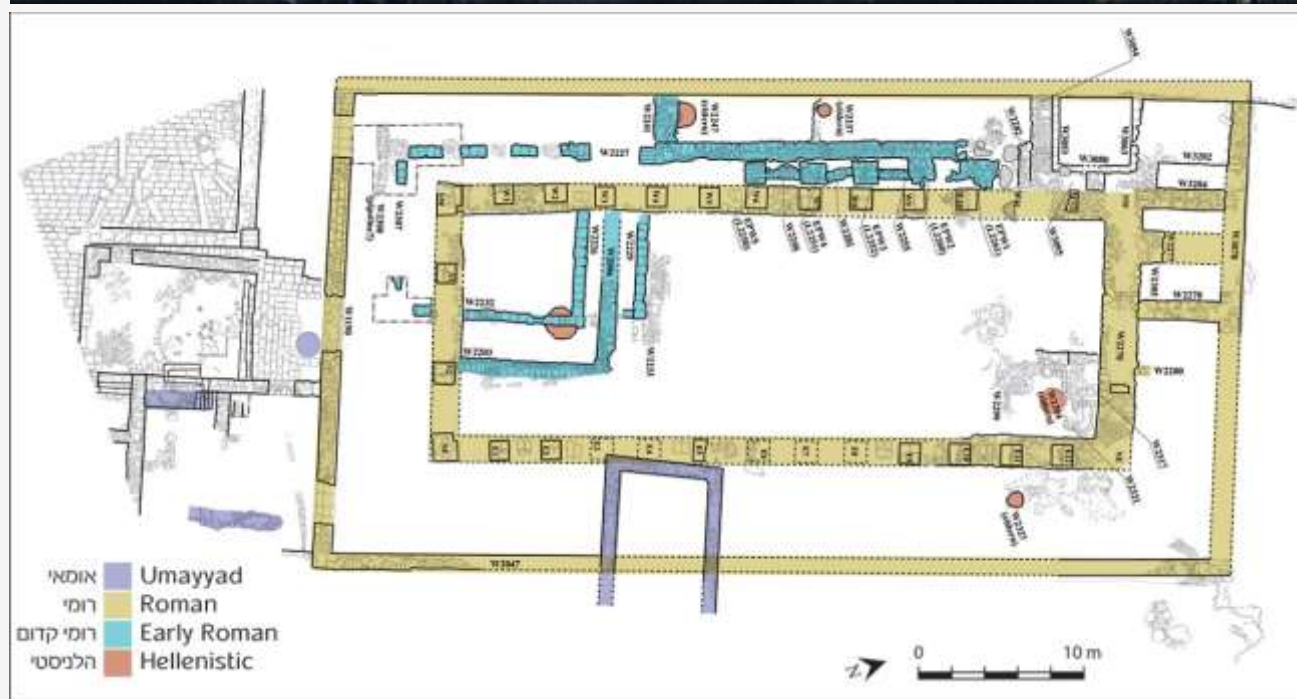
Bostra - nymphaeum

Usage of triangular space at the street intersection

# Public spaces/buildings

## Hippos

- On older (public?) structure
- End of the 1<sup>st</sup> c. CE
- Reconstructions/repairs at the end of the 2<sup>nd</sup>/beginning of the 3<sup>rd</sup> c. CE (Severan)
- 33x56 m (comp. agora 50x38.5 m)



## Public spaces/buildings

### Hippos

- Corinthian order
- Stucco decoration



# Public spaces/buildings

## Hippos

- Corinthian order
- Stucco decoration



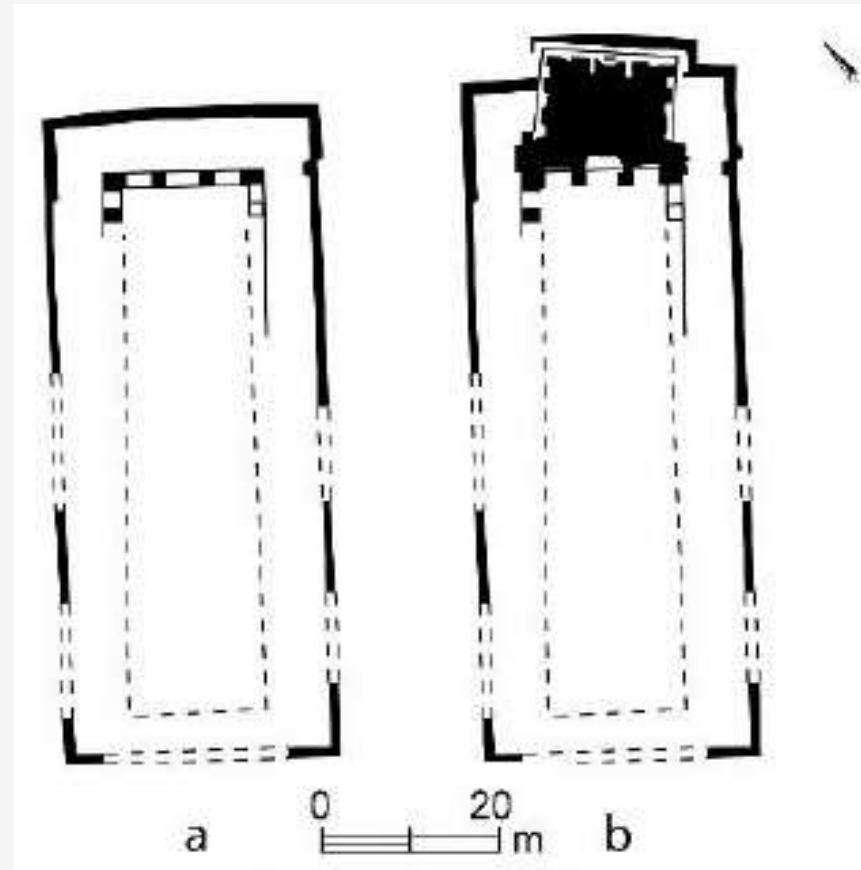
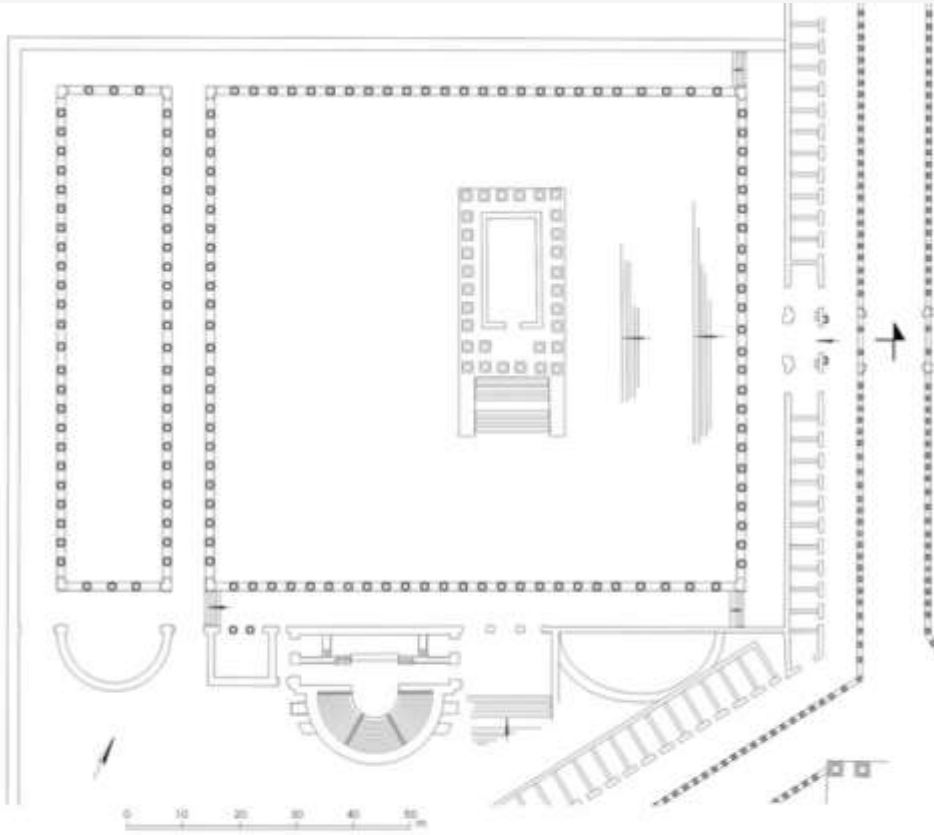
Fig. 11.23 Basilica, eastern wall, stucco fragments of anthropomorphic relief.



# Public spaces/buildings

## Other *basilicae*

- Scythopolis - Agora earliest (early 1<sup>st</sup> c. CE)
- Others mostly late 1<sup>st</sup>/early 2<sup>nd</sup> c. CE, or Severan



Scythopolis - Agora

Ionic, an "Altar" built later into the northern wall (b)

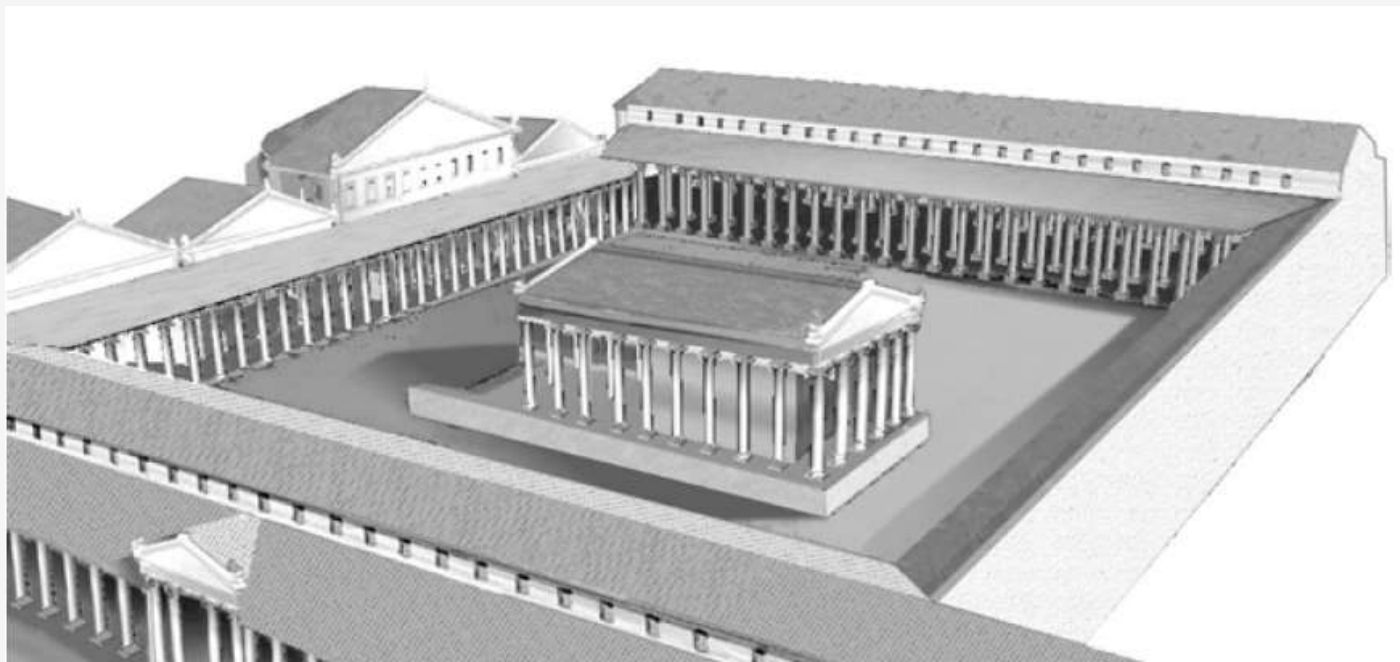
Scythopolis - Caesareum

Corinthian, early 2<sup>nd</sup> c. CE

## Public spaces/buildings

### Other *basilicae*

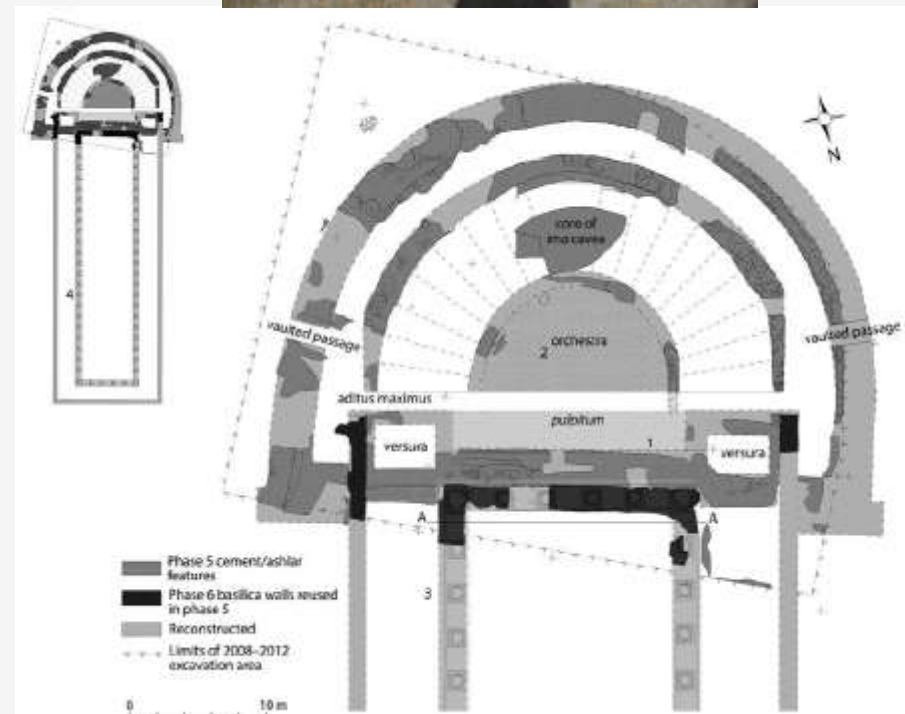
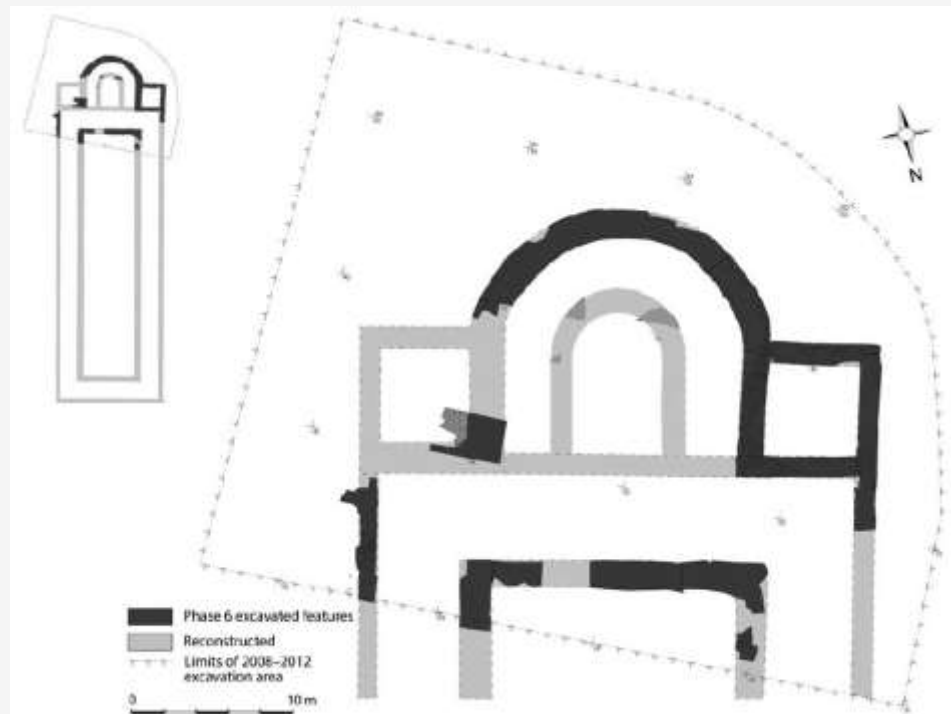
- Scythopolis Caesareum with *basilica*
- Corinthian
- 35.5x112 m
- Exedra 17.35 m



# Public spaces/buildings

## Other *basilicae*

- Ashkelon/Ascalon
- Combination of *basilica* and *odeion/bouleuterion* (Early Roman/Severan)



# Fortifications

- Limited evidence for the Ptolemaic/Seleucid foundations in the Hellenistic period (several exceptions – Gadara, acropolis of Philadelphia)
- Natural position (tell sites, hills) + limited use of earlier (BA/IA fortifications) – Lesser need for fortifications in the Hellenistic period (see Philoteria)?
- But other major towns are (re)fortified starting in the Hellenistic period (Dor, Jerusalem, Samaria...)
- Hellenistic fortification methods starts to penetrate the region during the 2<sup>nd</sup> c. BCE (Tel Dor, Gadara)
- Even in the Roman period, not all cities are fortified (but this phase is generally poorly known)
- Fortifications are built/expanded after the Great Revolt and then mainly from the later part of the 3<sup>rd</sup> c. CE onwards

“Secondly, it is necessary to built the towers at appropriate places... others, however, should be built **hexagonal**, or **pentagonal** or **four-cornered**... so that they may protect one another by **discharging missiles flankwise at mobile-towers**...and so that they **receive no damage when struck by rams of stone-projectors** (*ballistae*)...”

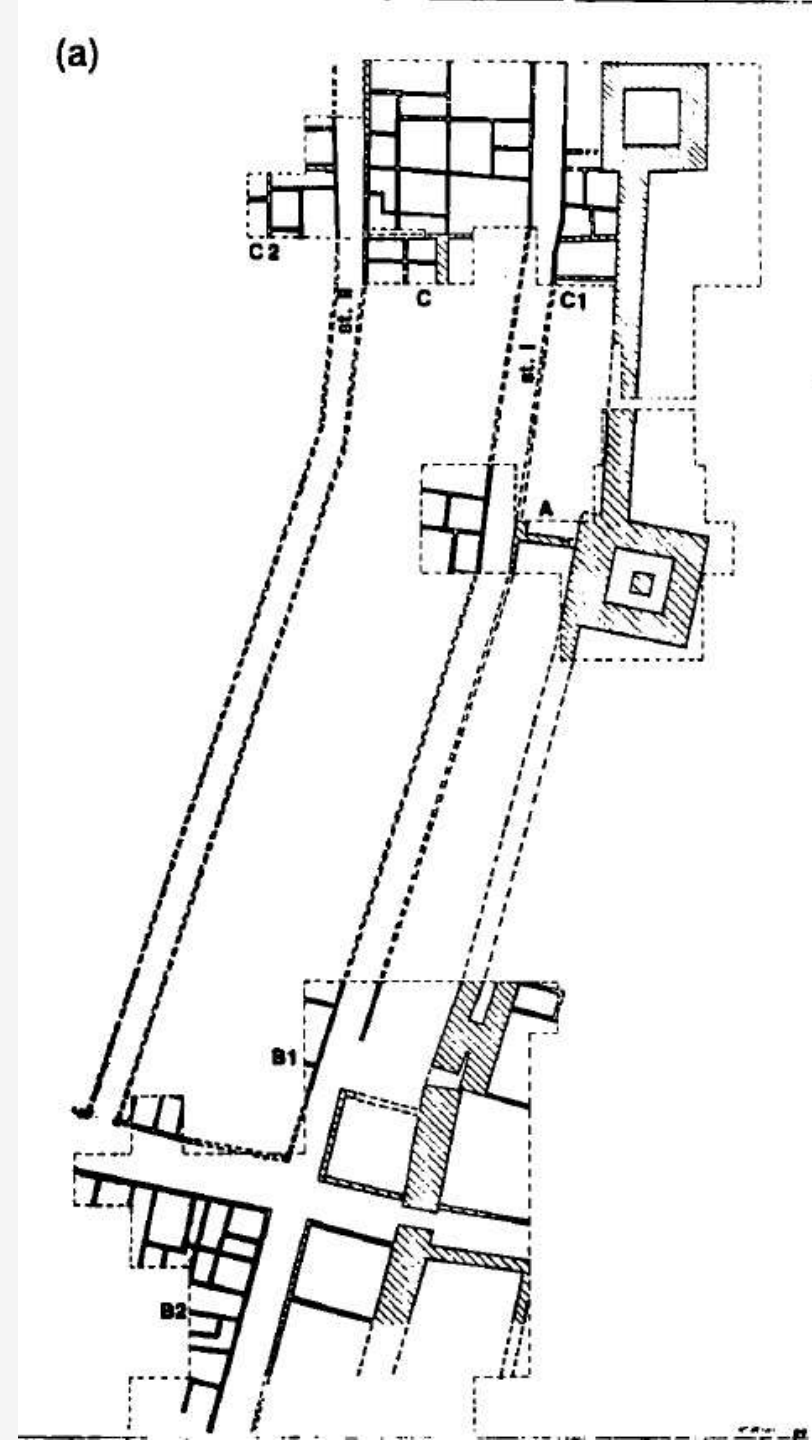
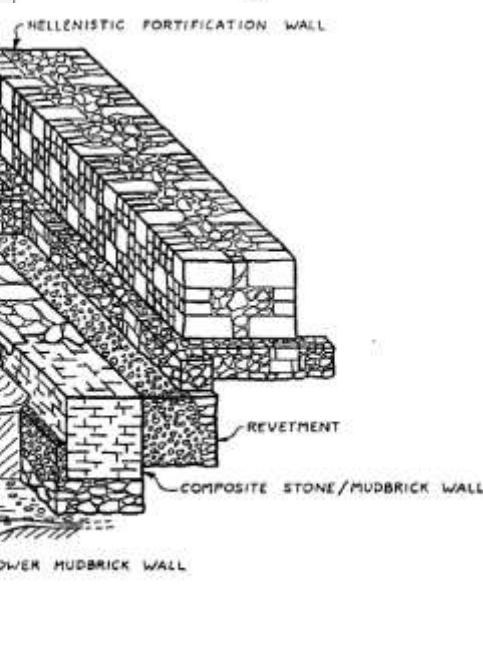
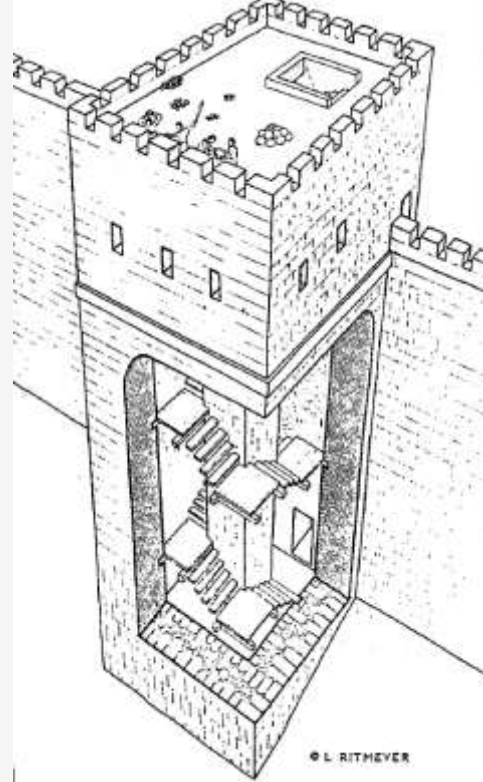
Philo of Byzantium, Poliorcetica 1.2-3



# Fortifications

## Tel Dor

- New city wall in the 2<sup>nd</sup> c. BCE
- Large square towers
- Gate flanked by buttresses
- Headers and stretchers
- Introduction of artillery



# Fortifications

## Hippos

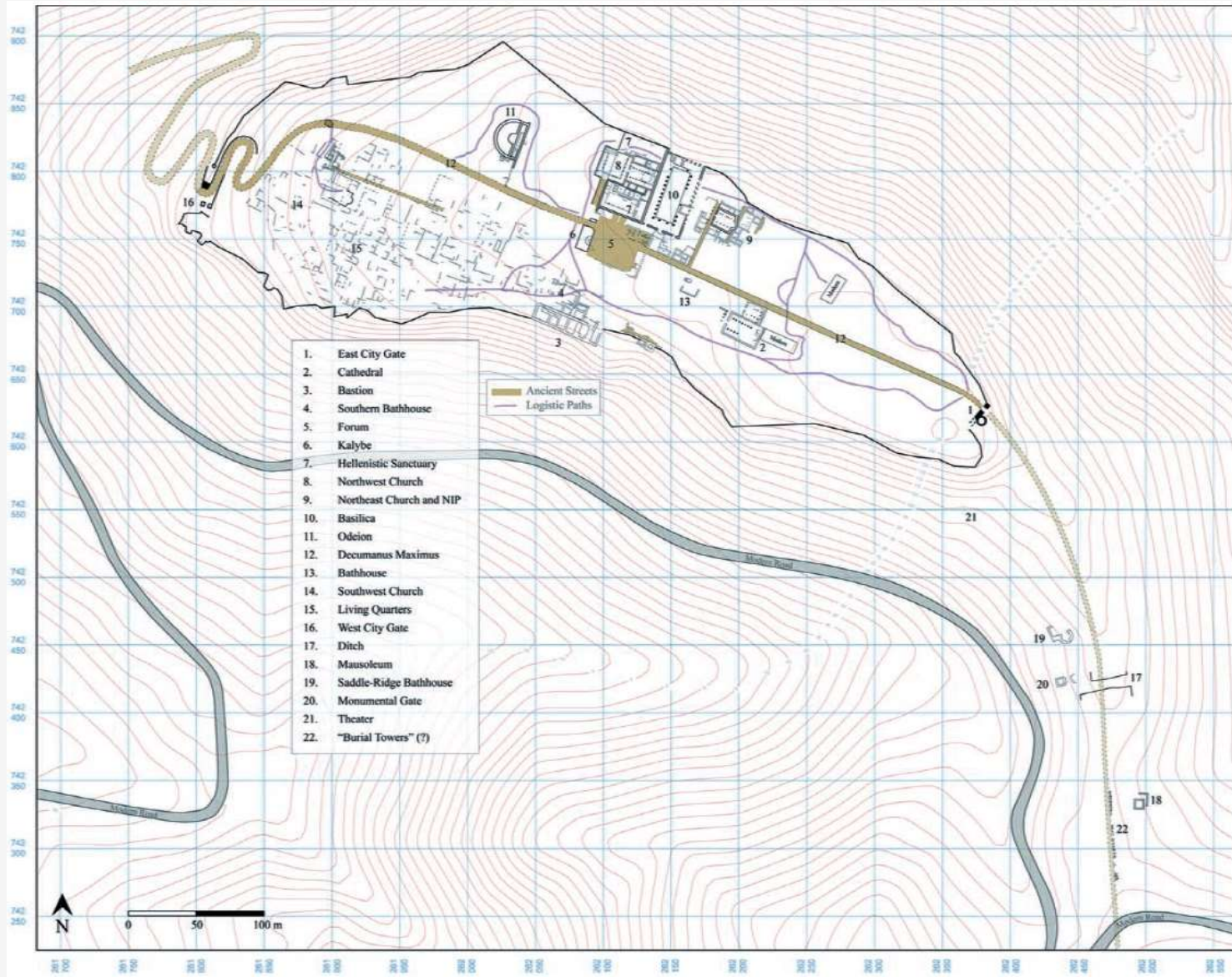
- No substantial Hellenistic fortifications
- Early Roman fortifications in 2 phases? (Bastion, Eastern Gate)
- Extension of the city in the early 2<sup>nd</sup> c. CE – new fortifications



# Fortifications

## Hippos

- Byzantine wall ca. 1,550 m
- Two gates
- Hellenistic/Early Roman wall following the same alignment?



# Fortifications

## Hippos

- Byzantine wall ca. 1,550 m
- Two gates
- Hellenistic/Early Roman wall following the same alignment?



# Fortifications

## Hippos

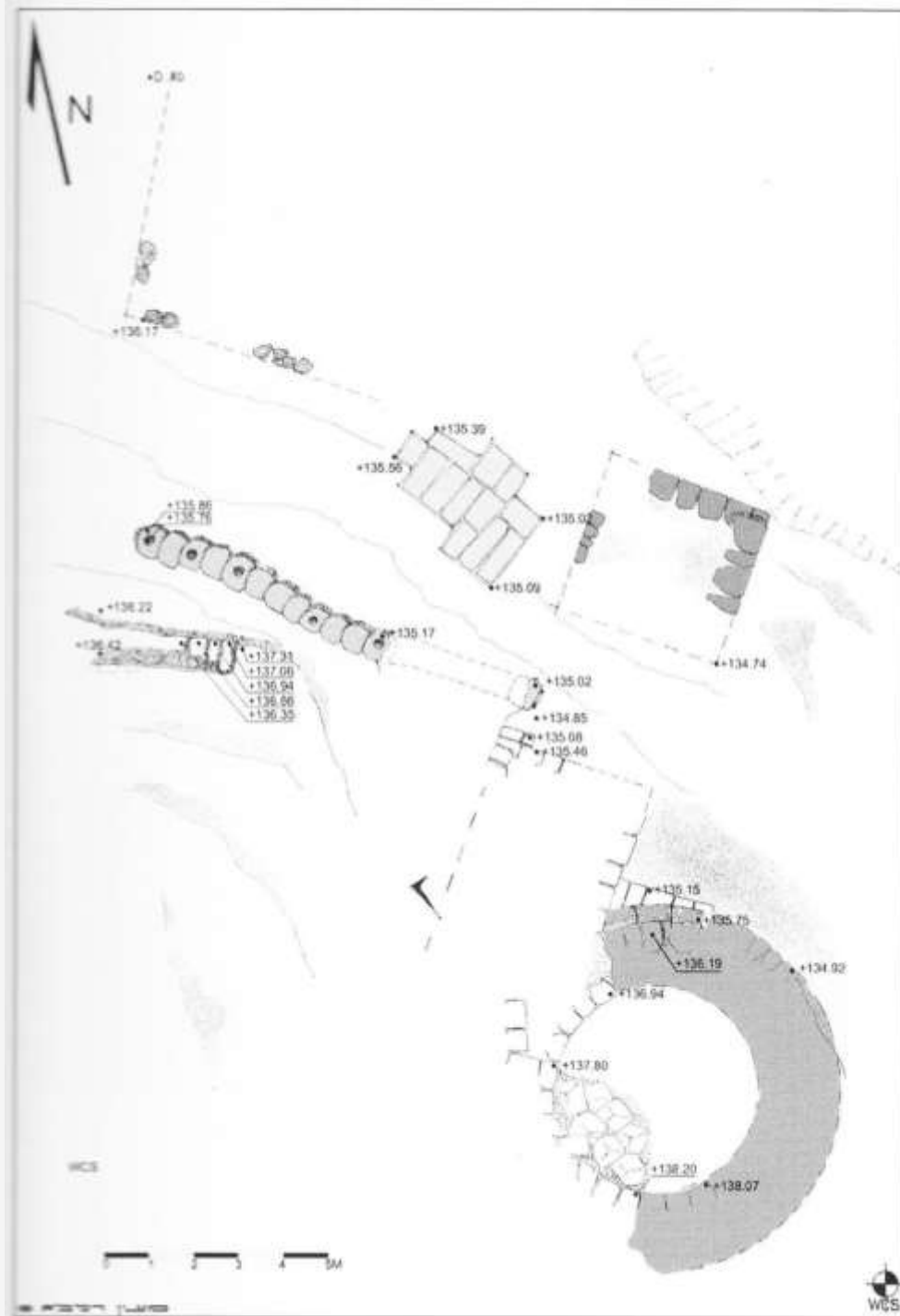
- Eastern gate
- 1<sup>st</sup> c. CE
  
- One passageway  
(3.15 m wide)
- Flanked by a round  
and a square tower



# Fortifications

## Hippos

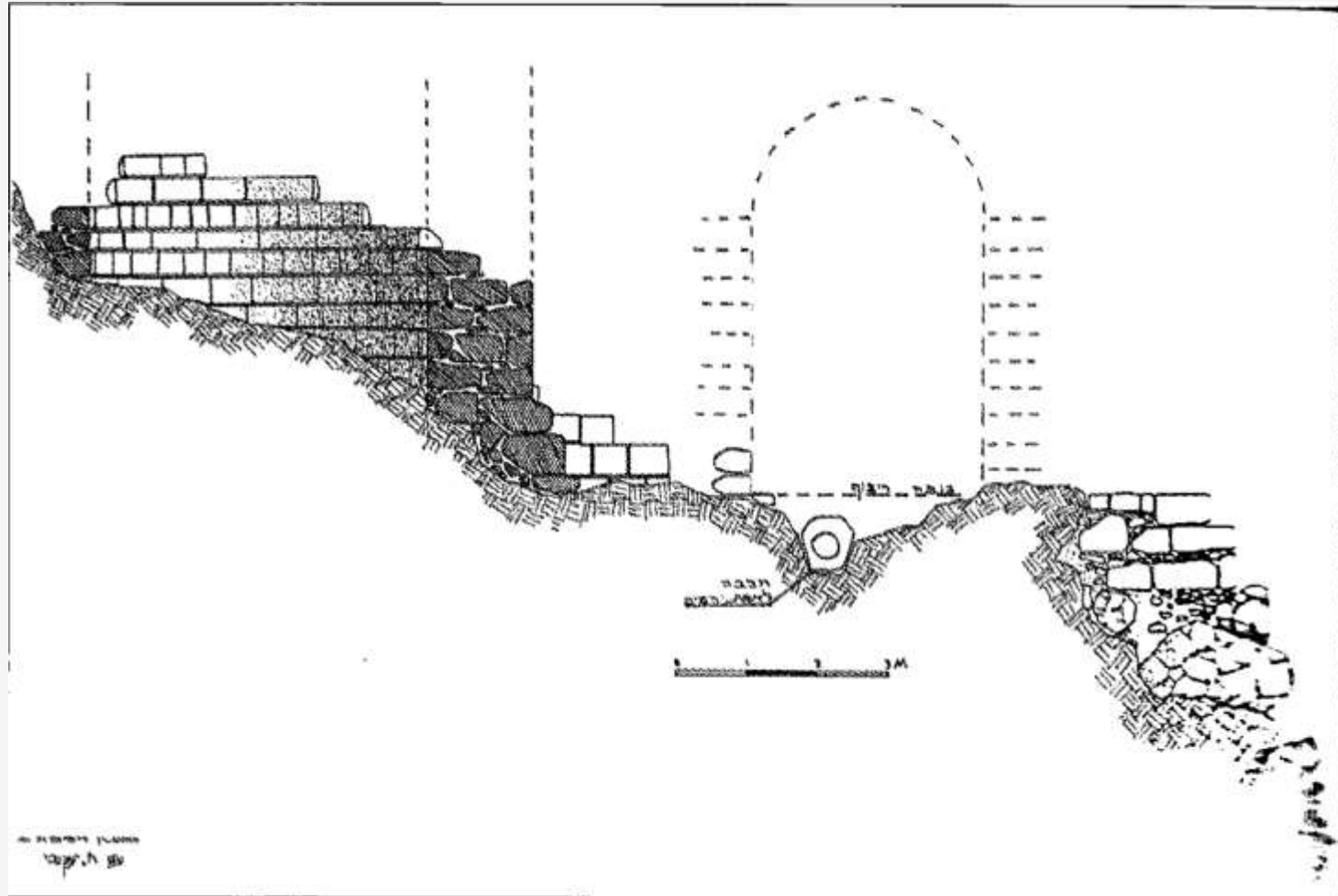
- Eastern gate
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# Fortifications

## Hippos

- Eastern gate
- 1<sup>st</sup> c. CE
- One passageway  
(3.15 m wide)
- Flanked by a round  
and a square tower



# Fortifications

## Hippos

- Eastern gate
- Round tower  
 $\varnothing = 8.2 \text{ m}$
- Fine masonry,  
headers and  
stretchers
- Smooth bosses,  
marginal drafting





# Fortifications

## Hippos

- Eastern gate
- Round tower  
 $\varnothing = 8.2 \text{ m}$
- Decorative  
moulding above the  
base –  
representative,  
ornamental  
function



# Fortifications

## Hippos

- Eastern gate
- Round tower  
 $\varnothing = 8.2 \text{ m}$
- Probably supports  
artillery on upper  
floors



# Fortifications

## Hippos

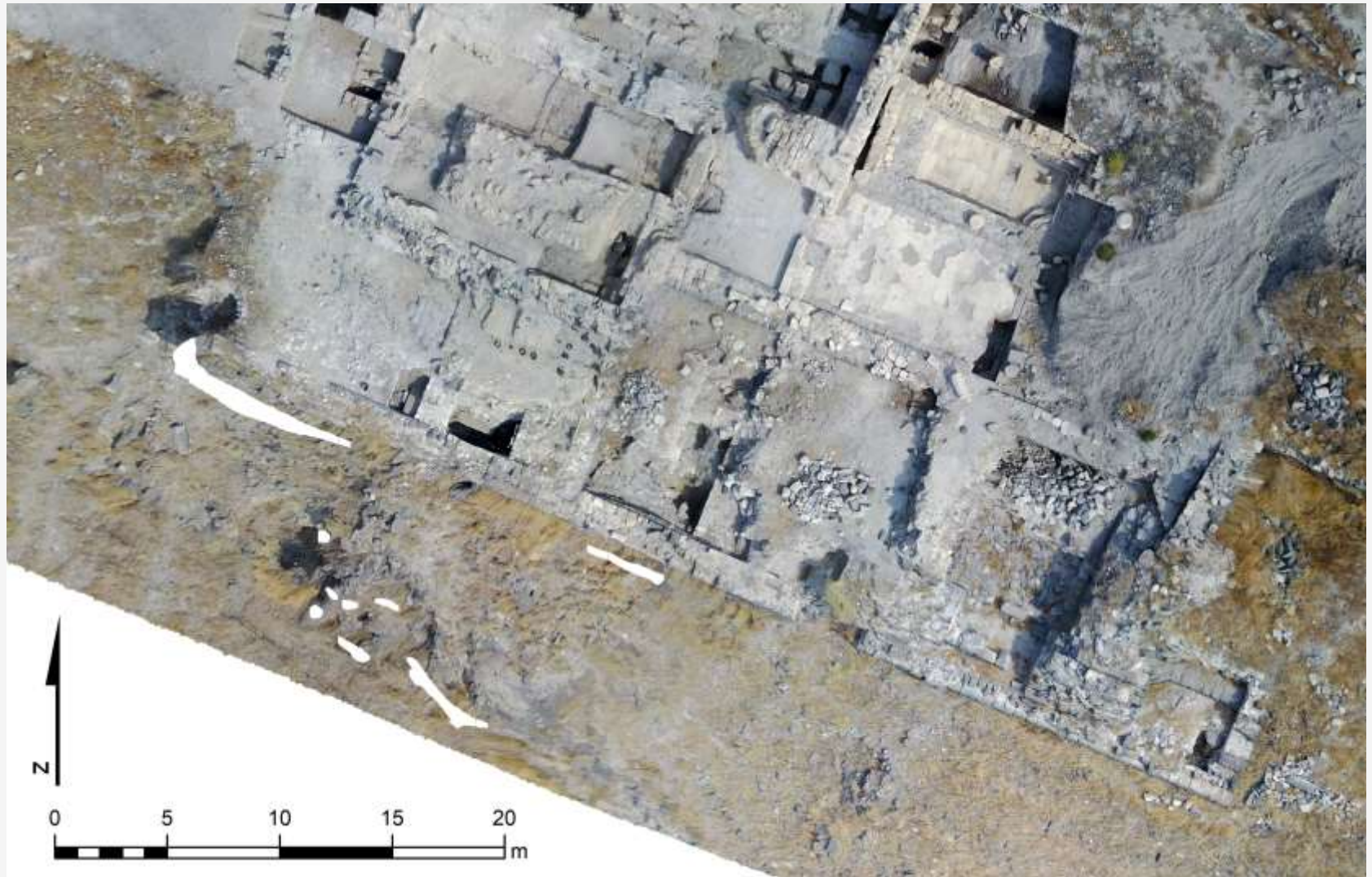
- Bastion in the Southern wall      late 1<sup>st</sup> c. CE
- 47x13 m



# Fortifications

## Hippos

- Bastion in the Southern wall                      late 1<sup>st</sup> c. CE, overlaid by bathhouse in the late 2<sup>nd</sup> c.
- 47x13 m



# Fortifications

## Hippos

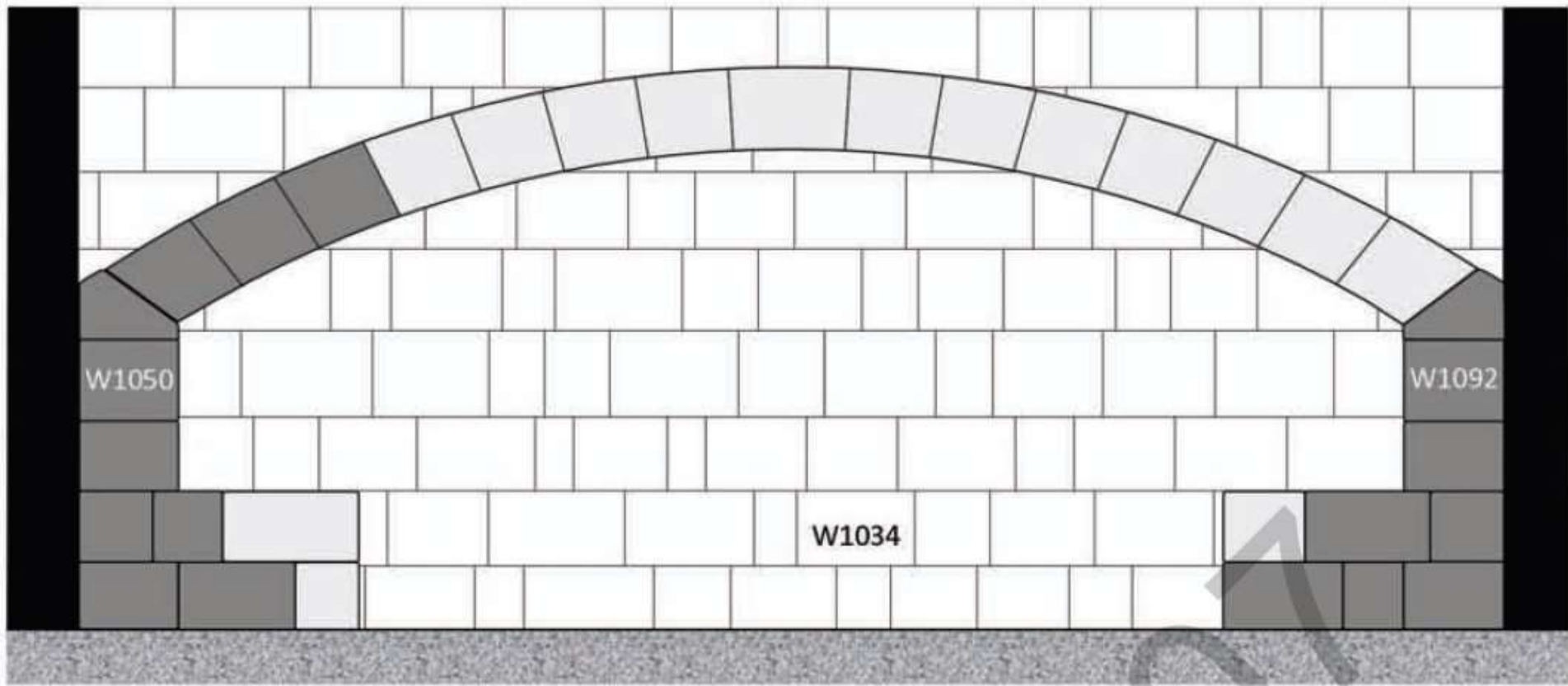
- Northern corner tower and neighbouring vault



# Fortifications

## Hippos

- Vault
- Some use of Roman building methods (vaulting, cement)



# Fortifications

Caliga (Roman military boot) imprint - direct involvement of Roman engineers?



# Fortifications

## Hippos

- Bastion - foundations





# Fortifications

## Hippos

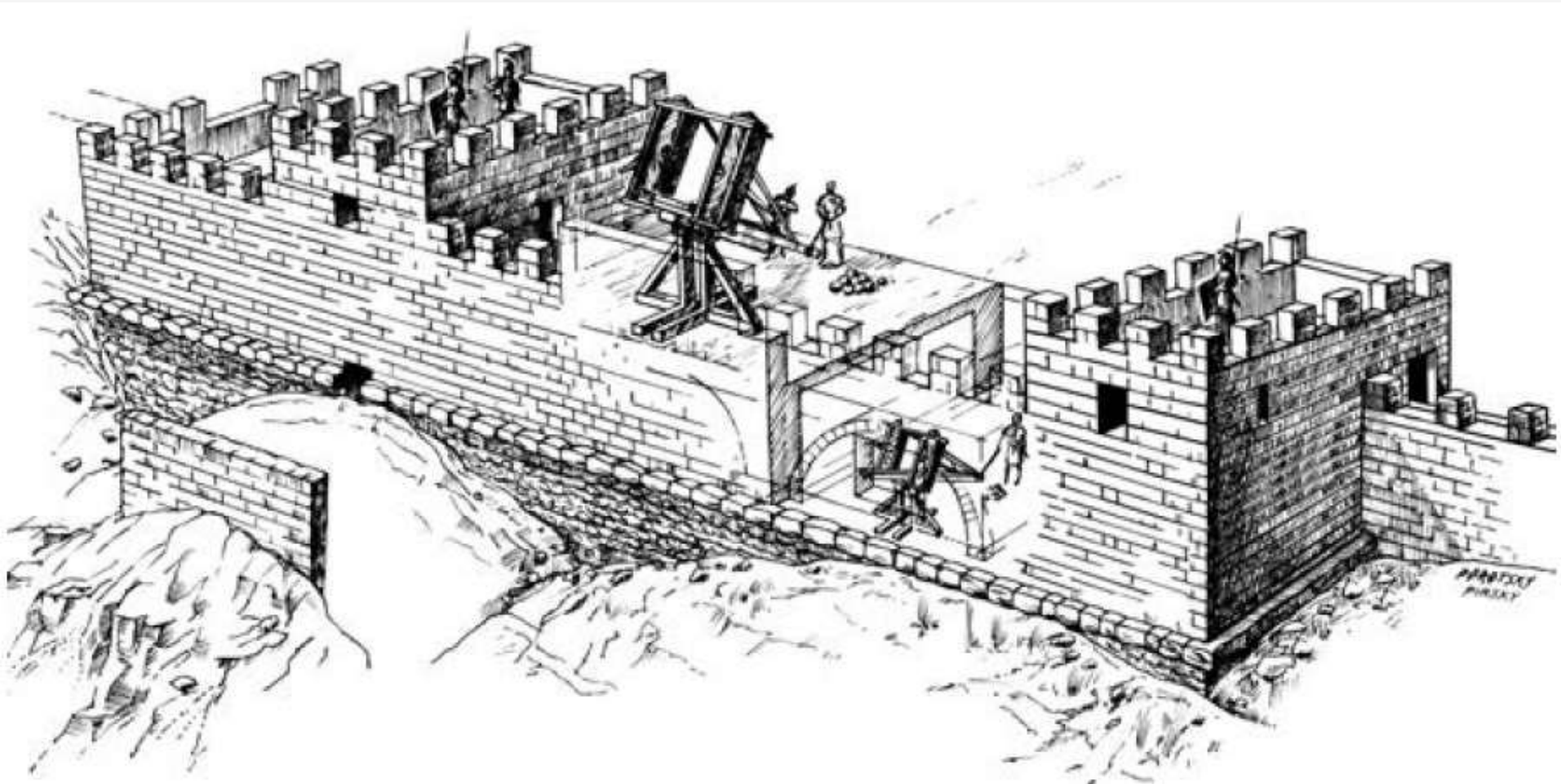
- Bastion



# Fortifications

## Hippos

- Bastion – proposed reconstruction



# Fortifications

## Hippos

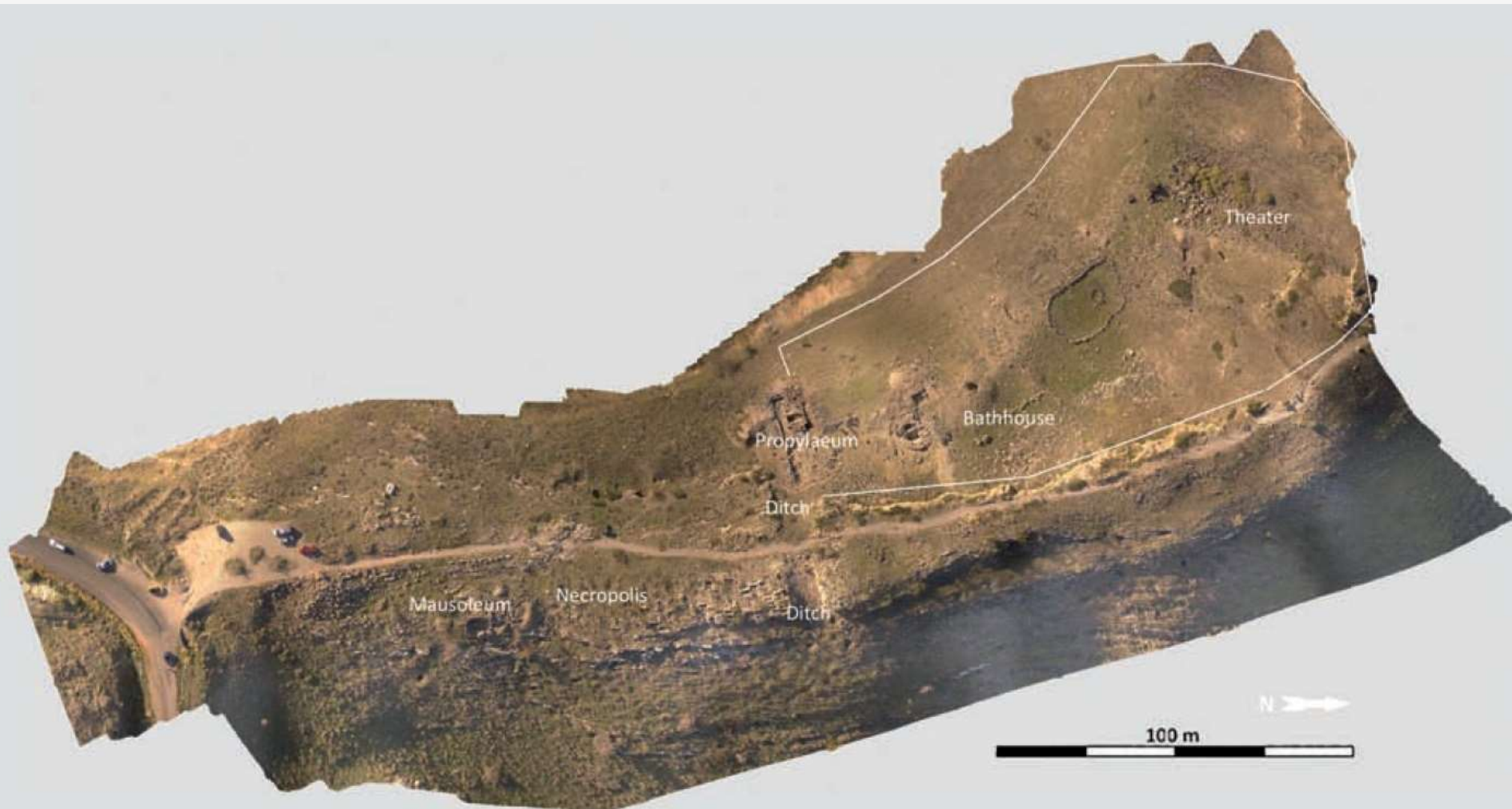
- Early 2<sup>nd</sup> c. CE city extension (Hadrian?)



# Fortifications

## Hippos

- Early 2<sup>nd</sup> c. CE city extension (Hadrian?)
- Ditch, *propylaeum* (gate) and wall



# Fortifications

## Hippos

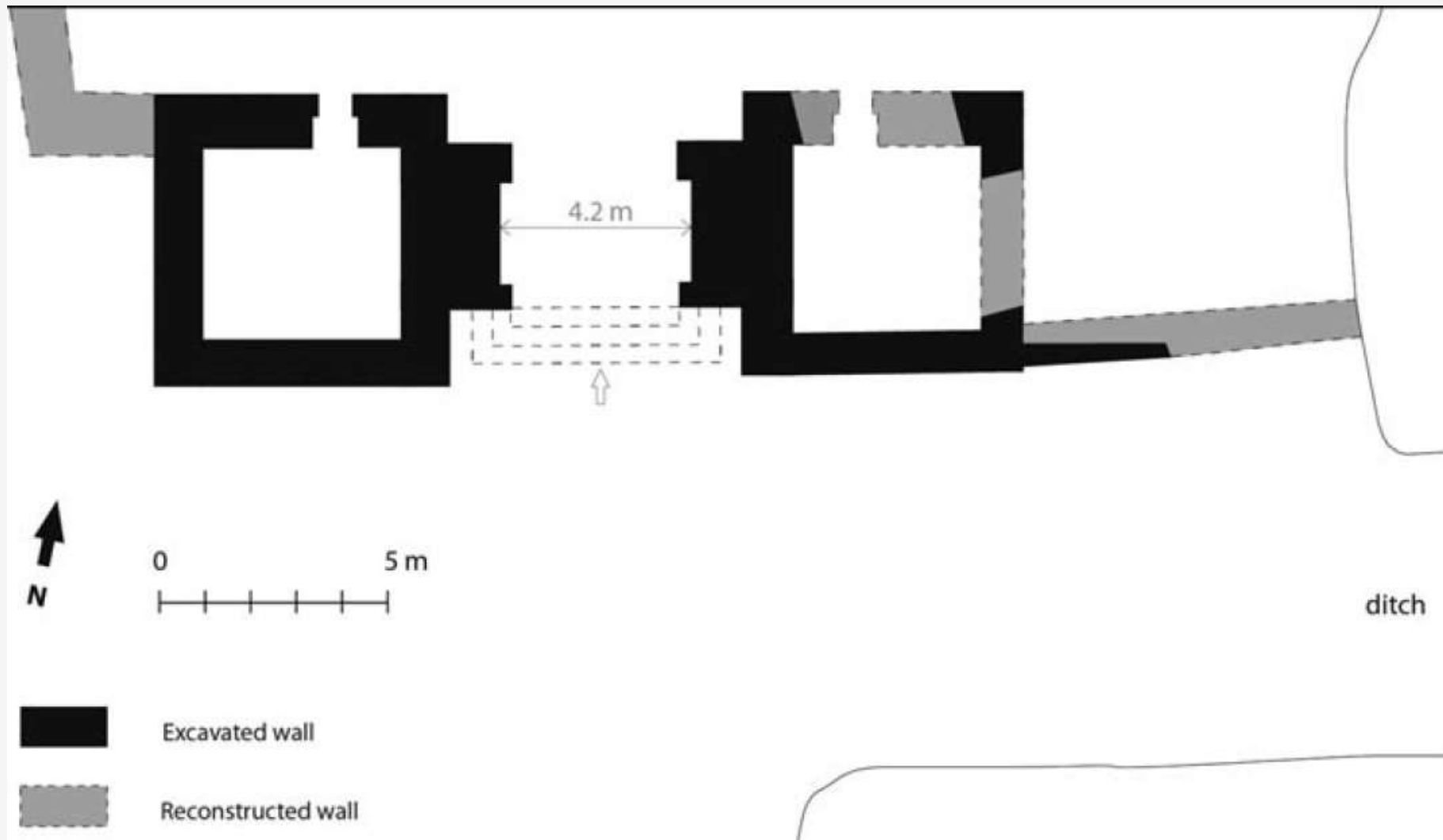
- Ditch (6.5-8 m x 40m)
- *Propylaeum* (gate)



# Fortifications

## Hippos

- Ditch (6.5-8 m x 40m)
- *Propylaeum* (gate)



# Fortifications

## Hippos

- Ditch (6.5-8 m x 40m)
- *Propylaeum* (gate)



# Fortifications

## Hippos

- *Propylaeum* (gate)
- Decorated door frame and moulding above the base

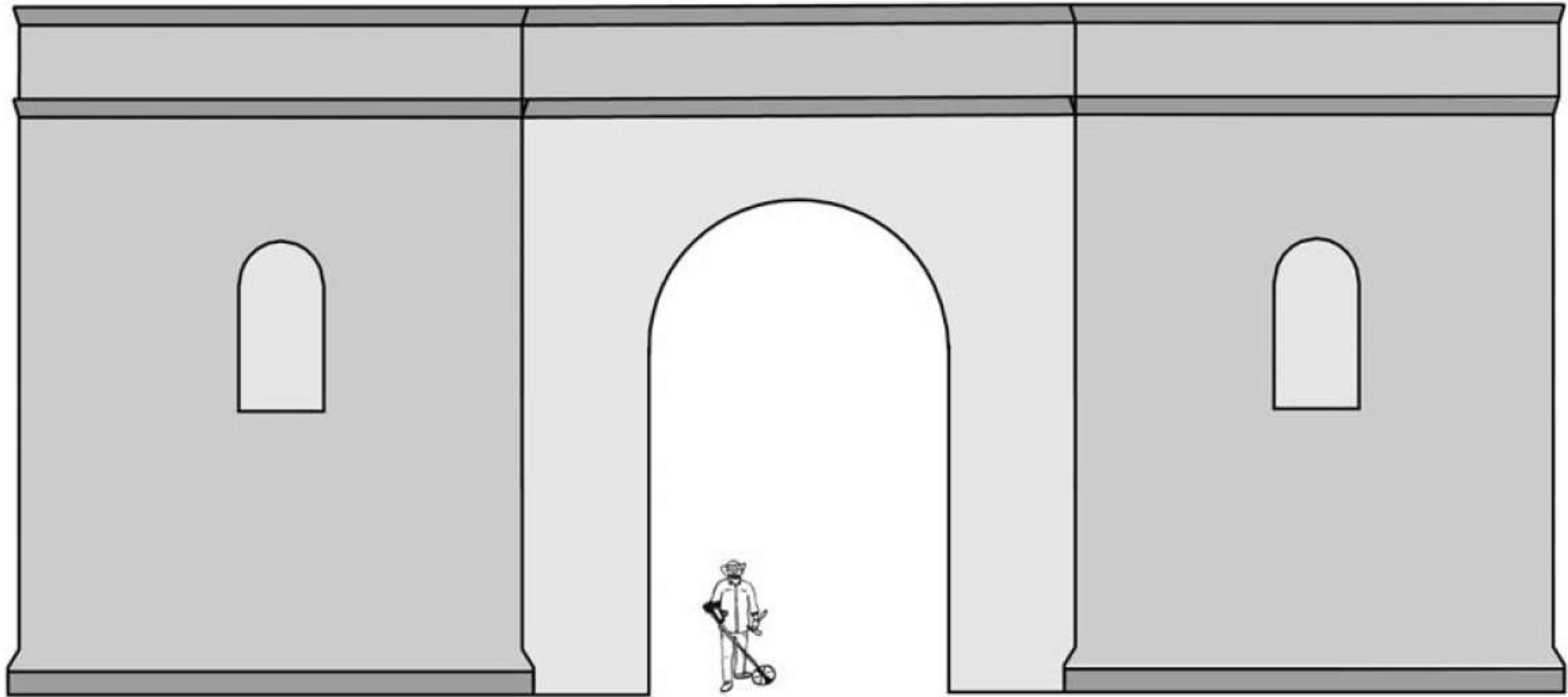




# Fortifications

## Hippos

- *Propylaeum* (gate)
- Towers 6.45x6.45 m, passage 3.65 m



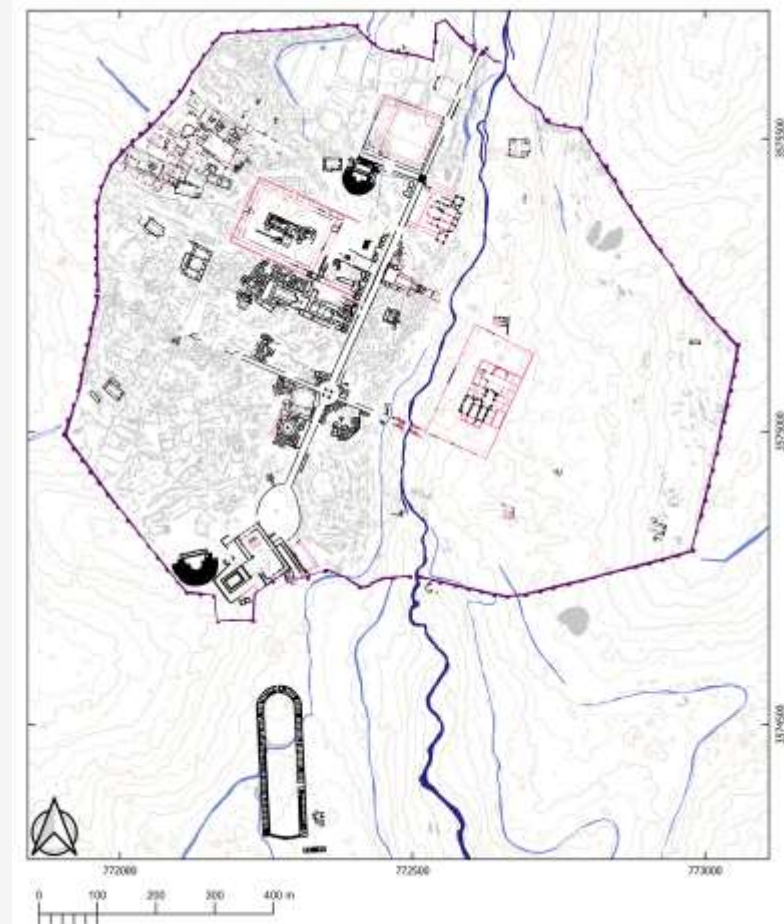
# Fortifications

## Other cities

- Gadara (second half of the 1<sup>st</sup> c. CE), Gerasa (early 2<sup>nd</sup> c. CE)
- Unfortified – Capitolias, unknown – Pella, Scythopolis, Abila, Dion (Scythopolis have Byzantine fortifications, perhaps based on the Roman walls)
- Fortified acropolis – Philadelphia, Pella?
- Herodian foundations often fortified (not a rule) – Samaria, Caesarea, Tiberias...
- Roman foundations rarely fortified (Philippopolis)
- “Symbolic” walls, “symbolic” gates
- Fortified x decorative gates



Gadara ~2,500 m, few towers, bastion, two new gates



Gerasa ~3,500 m, 100+ towers, Byzantine

# Fortifications

## Gerasa

- Early Roman wall only 1.75 m wide (more symbolic than functional – limited space for man and artillery on the walls)
- Byzantine wall 3.3-3.5 m (wider – more functional)



# Fortifications

## Gadara

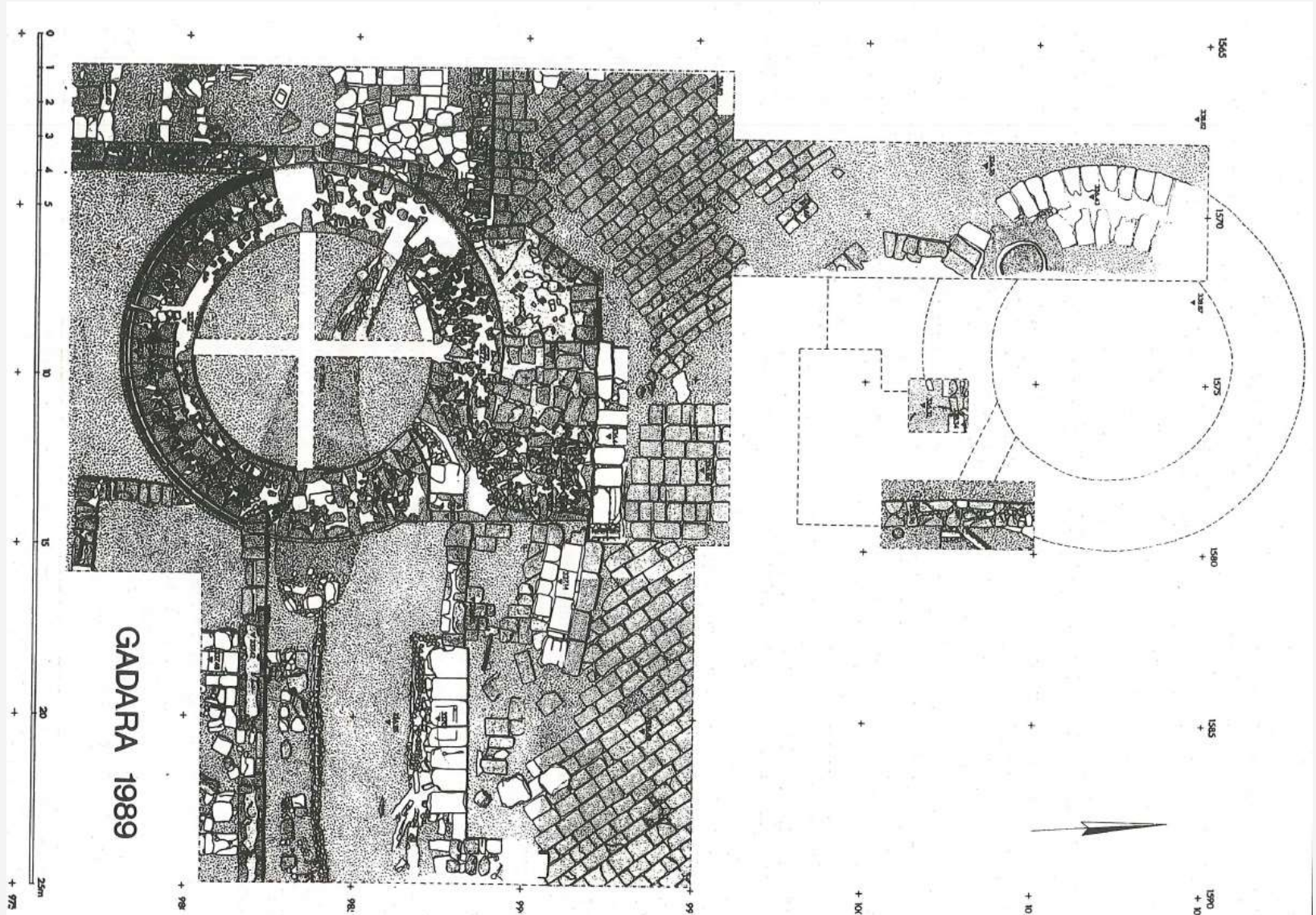
- “Tiberias” Gate (red)
- Monumental entrance (~35 m wide) *in front of the city* (~100 m west of the city wall and its associated gate - blue)
- Early 1<sup>st</sup> c. CE
- Bastion (l. = 41 m) attached to the south-eastern corner tower of the Hellenistic wall (yellow)



# Fortifications

## Gadara

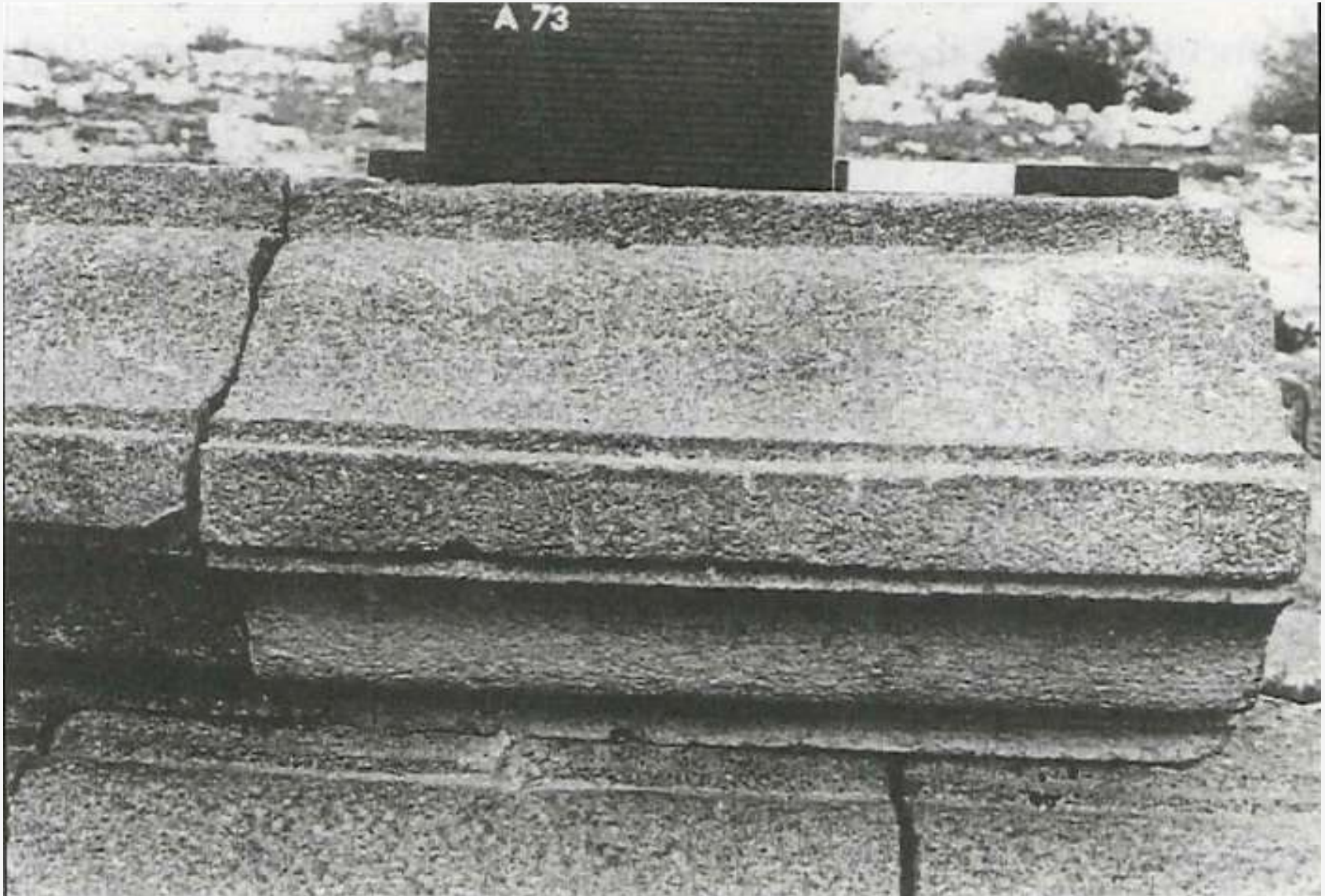
- "Tiberias" Gate



# Fortifications

## Gadara

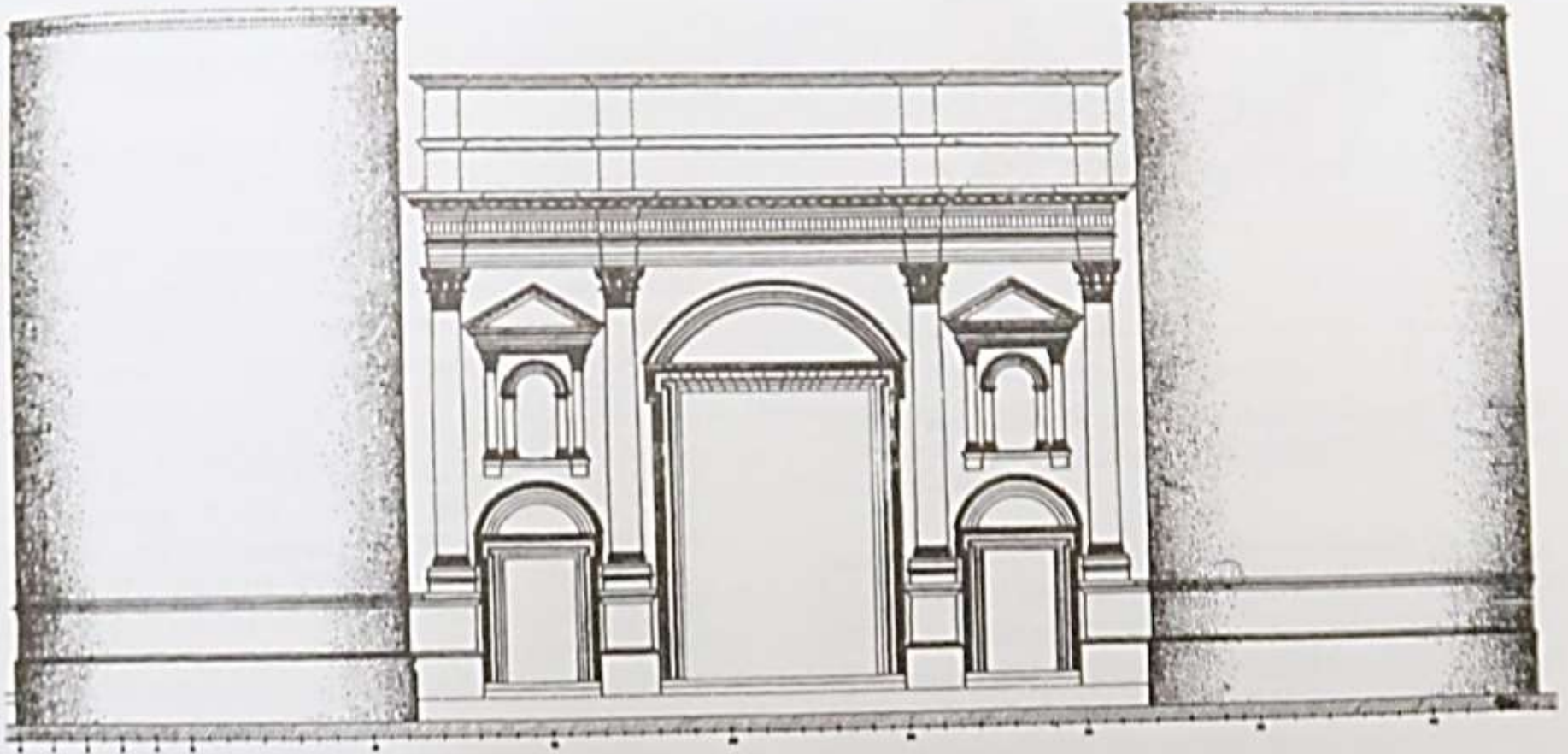
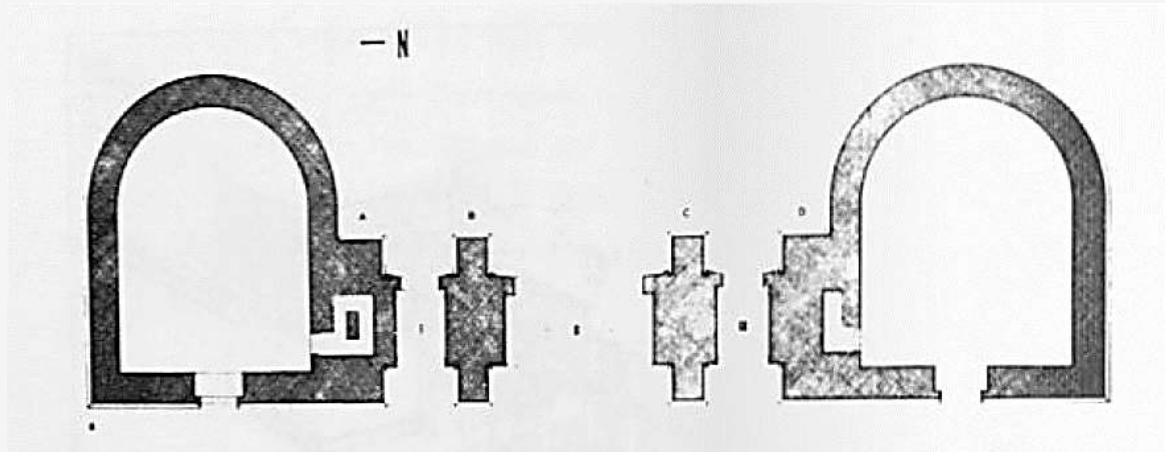
- “Tiberias” Gate – round towers with decorative mouldings (see Hippos)



# Fortifications

## Gadara

- Monumental arch/gate
- Ca. 500 m to the west of the Tiberias Gate



# Fortifications

## Other places

- Single or triple-arched decorative gates found throughout the region (Jerusalem, Petra, Damascus...)
- Modelled on Roman triumphal arches



Gerasa, Northern Gate



Damascus, Bab Sharqi