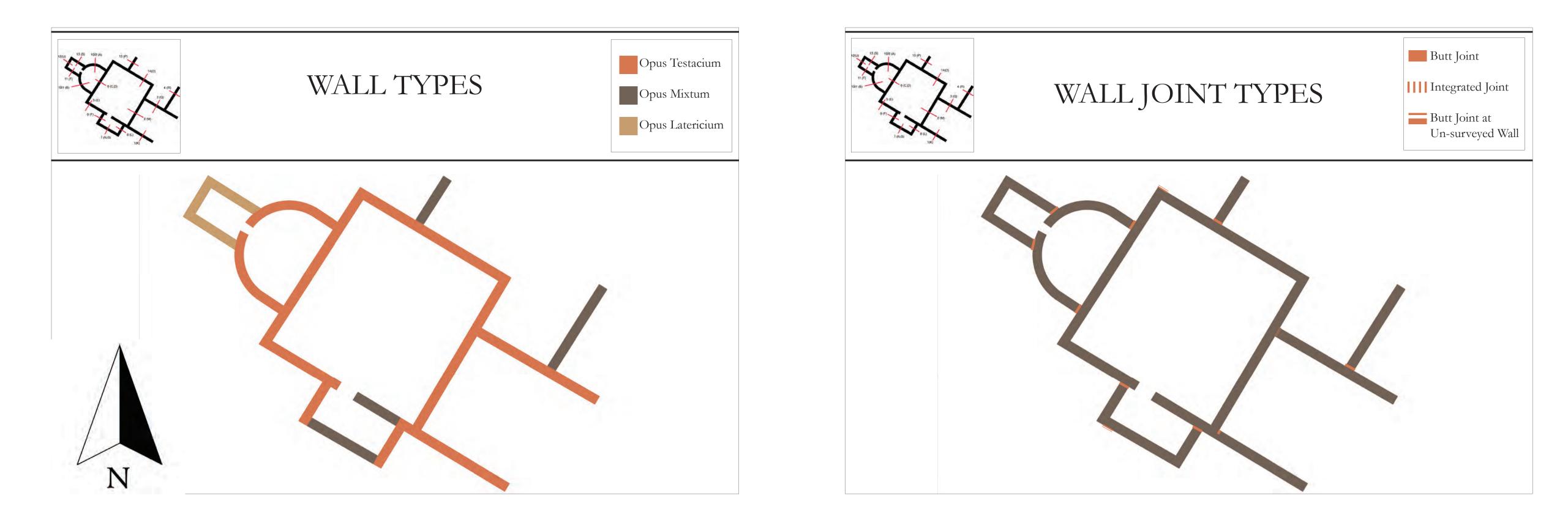
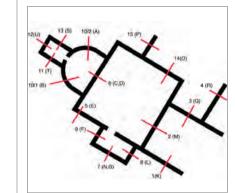


# BATH COMPLEX - WALL TYPES

### CARSULAE BATHS RESEARCH PROJECT - SAN GEMINI PRESERVATION STUDIES





## WALL CONSTRUCTION TYPES

#### **METHODOLOGY:**

- Identifying separate walls and devise identification system. - Measuring the width of each wall at various locations to acquire an average wall thickness.

- Measuring the widths of the wall layers (bricks, cement, interior finishes, etc.) and document the size of masonry units and wall constructions with measurements and sketches.

- Measuring and making notes of any openings and structural members such as arches

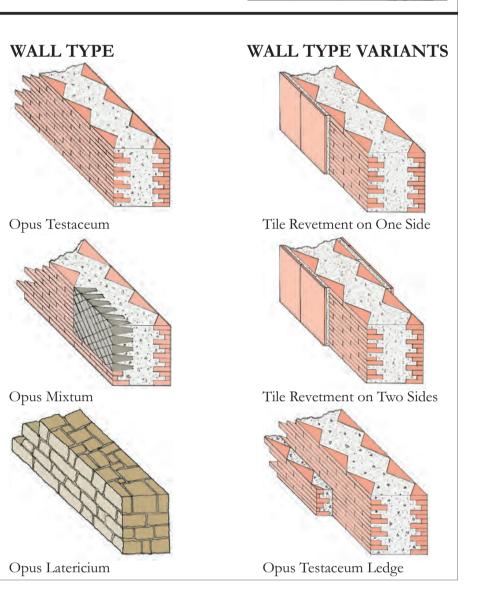
- Recording further observations including notes on materials, construction types, oddities found on the walls and relationships to other structural members - Taking photographs of each wall in elevation (both outer and inner sides) and in plan.

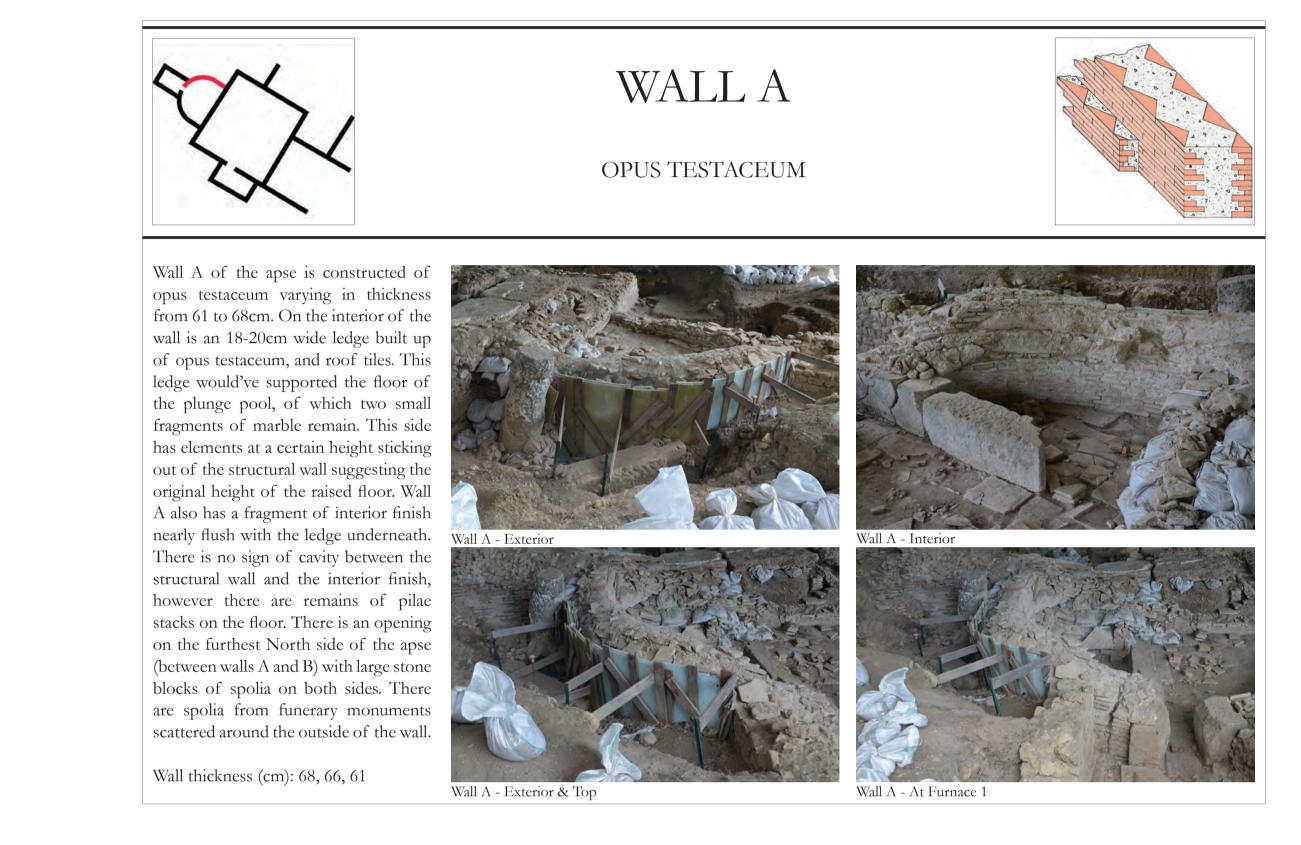
### AVERAGE MASONRY UNIT SIZE:

Tegulae: Measures between 30cm to 10 cm on long side, and between 18 and 14 in perpendicular direction with an average thickness of 4 to 5 cm.

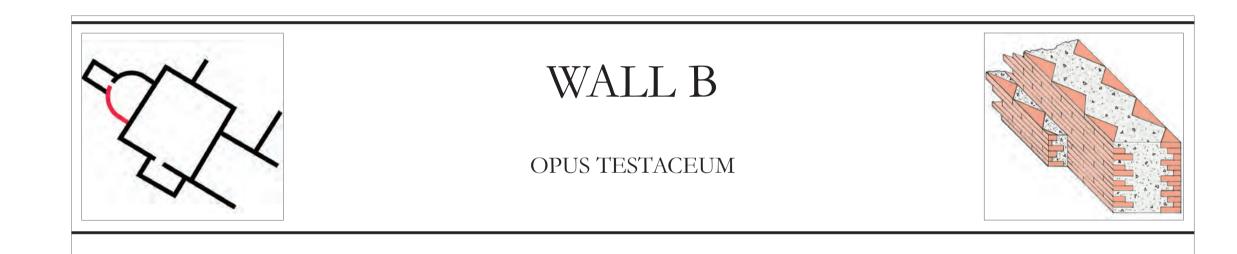
Cubilia: Measures 8cm x 8 cm on the face and average between 18 and 20 cm in depth. All have a truncated pyramidal shape.

Tubuli: There is one intact tubuli found on the site as it is currently excavated. This measures 10.5cm by 14 cm outside to outside. Inside to inside the cavity measures 7.5cm x 11cm. The length is indeterminable as only to top potion is visible.





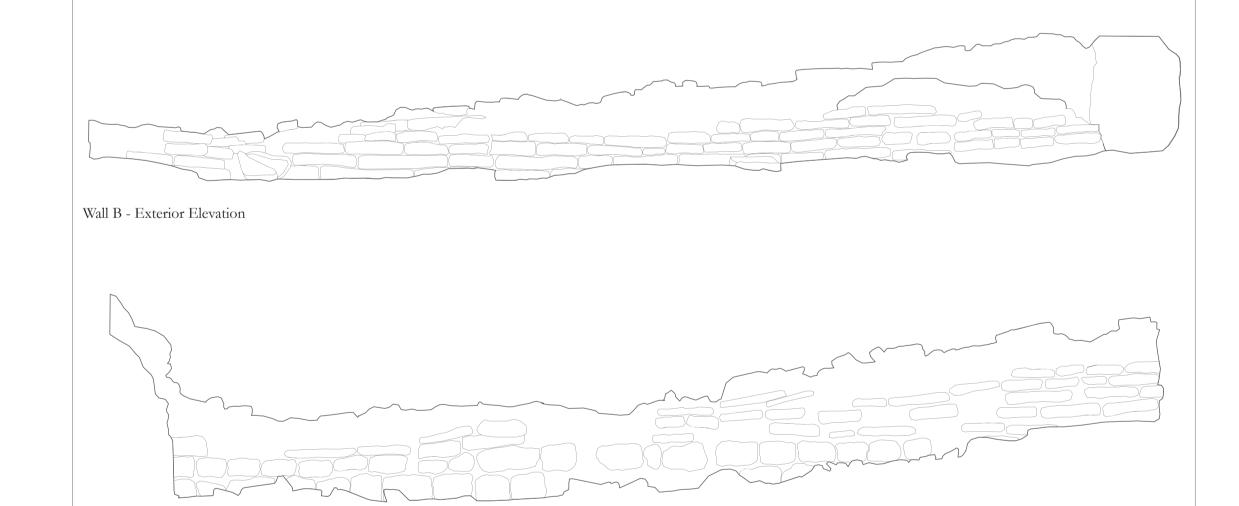




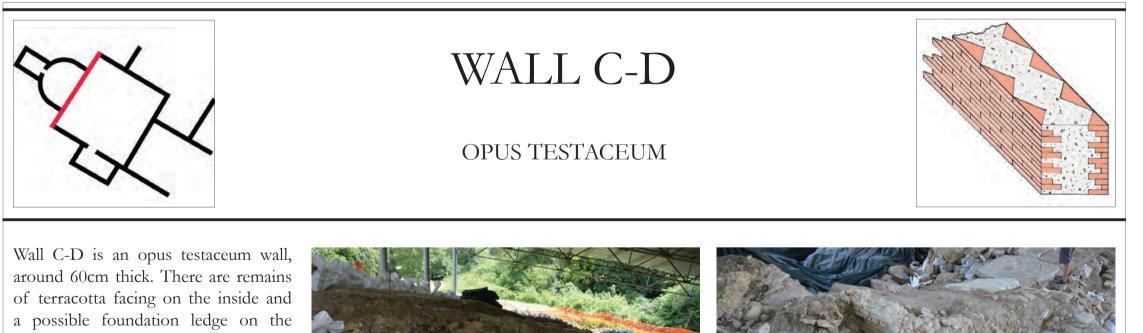
opus testaceum varying in thickness from 61 to 65cm. On the interior of the wall is an 18-20cm wide ledge built up of opus testaceum, and roof tiles. This ledge would've supported the floor of the plunge pool. This side has elements at a certain height sticking out of the structural wall suggesting the original height of the raised floor. Wall A also has a fragment of interior finish nearly flush with the ledge underneath There is no sign of cavity between the Wall B - Interior structural wall and the interior finish, however there are remains of pilae stacks on the floor. There is an opening on the furthest North side of the apse (between walls A and B) with large stone blocks of spolia on both sides. There are spolia from funerary monuments scattered around the outside of the wall.

Wall thickness (cm): 65, 61, 61









outside approximately 13-14 cm wide. On the outside there is around 4 cm of plaster. There is the same plaster also at the apse. Within the apse the pilae are completely against this wall.

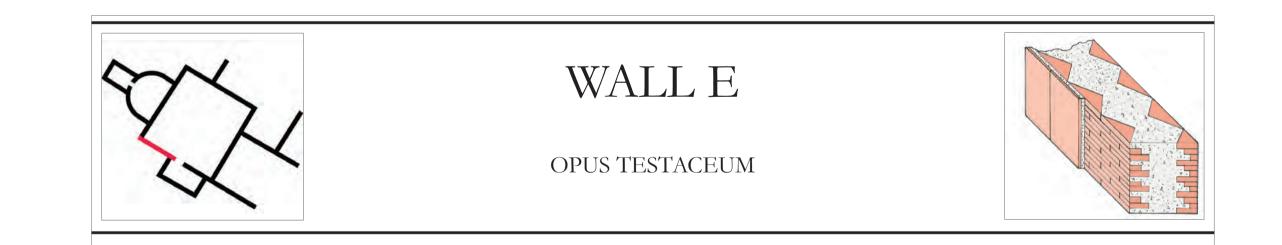
Wall thickness (cm): 60 (no more measurement due to lack of excavation and on-going works)



Wall C-D - Exterior North Corner

Wall B - Exterior

Wall C-D - Exterior South Corner



Wall E is constructed of opus testaceum and is 60.3cm thick on average. The wall has a small opening on the west end with large terracotta voussoirs forming a jack arch. On the exterior the wall has a 14cm deep ledge at the bottom, probably used to support some kind of cladding. The walls of the large room (tepidarium) have terracotta facing sitting on a 13cm ledge. The pilae are 10-15cm from the wall.



Wall E - Exterior



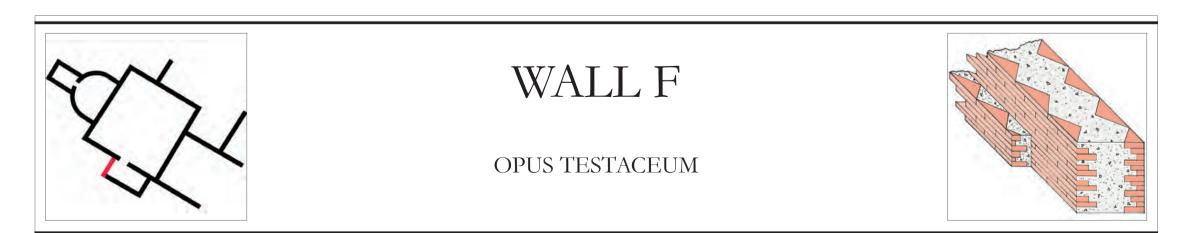
Wall thickness (cm): 62, 59, 60, 60



Wall E - Jack Arch Detail







Wall F is built of opus testaceum approximately 62cm thick. On the inner side there is a ledge made of partial roof tiles. Within the wall structure there is a stone opening jamb with an engaged column covered in laural leaves used as a fill element. This jamb has shifted from it's original location causing the wall to fall outward. It appears that part of the column might have projected out of the wall surface. The structural part of the wall has fallen outward and amongst the bricks and stones a remarkably large Wall F - Exterior glass window pane has been found. measuring approximately 30 cm square.

Wall thickness (cm): 62 (only one





Wall G-N is built in opus mixtum and is 51cm thick on average. We can see opus reticulatum all the way along the bottom portion of the wall and opus testaceum courses above it. On the interior we can find the same ledge as walls L & F These is an opening in the center of this wall, with little visible definition at the sides, and no clear function. Opening may be related to a possible furnace located on the south side of wall G-N.

Wall thickness (cm): 50, 52





Vall G-N - Interio

