

## *Reflections on a cold plunge*

*A personal view of one of the most interesting features of Barcombe's Roman bathhouse*

*by David Millum AlFA MA*

In October 2012 a Kermit green, caterpillar-tracked, JCB made short work of backfilling the five years worth of excavations at Barcombe's Roman bathhouse. That day not only saw the end of over a decade of excavation for the Barcombe Villa Project but also sadly marked the end of practical field archaeology at the University of Sussex. Over the years many intriguing features had been exposed at both the villa and bathhouse sites, many of which have been documented in periodicals such as *Sussex Past & Present* and *British Archaeology*. This is an attempt to look beneath the surface of one of the most enigmatic areas of the recent excavations at the far south west end of the Roman remains in the lowest corner of Church Field, Barcombe.

### **2008 season**

In August 2008 I had supervised a group of six university students from UCL and Newcastle in cleaning back the surface of the western edge of the first year's excavations at Church Field. I worked on what appeared to be a flint wall that headed under the western baulk which unusually had a 1m wide chalk foundation running parallel to it. I speculated with the site director, David Rudling, as to whether this could be the base for a staircase or even a shrine. The flint wall had scattered tegula lying on its surface which may well have been the remains of a tiled string course within the wall as these were later seen to be a feature of construction. Our group were only site for a week but I had but I had awakened a fascination with a structure that was to last for the next five years.



August 2008: UCL & Newcastle students work at west end of trench with the south, east and west walls of WR2 still to be exposed

### ***2009 & 2010 seasons***

The next year saw the excavation extended further west and the surface of east, west and south walls were joined to my north wall revealing what was to be prosaically named West Room 2 (WR2).

I had little to do with the excavations that year as I was directing my own excavation of the Greensand Way at Plumpton, but in 2010, I was appointed site supervisor and WR2 was due to be one of the areas of investigation although ultimately work on the eastern praefurnium and adjacent areas took precedence as this area was to be back filled at end of the season. WR2 now clearly had external walls of flint to the north, west and south, with a substantial chalk foundation running round the interior of all three sides, and a slighter chalk foundation for a wall to the east. Members of the Mid Sussex Field Archaeological Team (MSFAT) dug a evaluation trench to the outside of the NW corner which showed the well built nature of the structure with quoins to the corner made from dressed sandstone and winkle stone with a tile string courses running along the west and north walls. Some cleaning took place to the surface of the south west quadrant of the interior which revealed a random row of building material running across the room but whether this was a wall, a robber trench or just a scatter of loose debris was not resolved.

### ***Speculation on possible uses***

I was struck by how much this structure resembled a small indoor swimming pool and was therefore not surprised when Ernest Black suggested that he thought the room could be a plunge pool. This seemed more likely given the rooms ample proportions than a counter proposal of a latrine similar to that at Housesteads Roman Fort. I was always sceptical about the need for a large communal lavatory in a rural bathhouse where a slave with a chamber pot would seem more than adequate. Other theories abounded including a proposal that the strength of the walls could suggest that the building was double storied or had been used as a watermill; although no other evidence had been found to support the latter even though it did appear, from the



2009: David Rudling telling a party about the emerging WR2



2010: Structure of NW corner of WR2 revealed

geoarchaeological work by Dr Mike Allen and geophysical surveying by David Staveley, that a water supply could have run down this western flank of the building.

### 2011 season

Ernest Black was very keen for us to see what the interior of the room would reveal especially the inside faces of the walls and so this was made a priority in 2011 after discussions with our other director, Chris Butler. The south west quadrant of WR2 was virtually fully excavated by the end of the second week and the scatter of loose debris had resolved into the base of a partition wall. The west, north and south walls were taken down internally to their foundations and a distinct plinth or step was observed at the base of both the south and north walls. More exciting was the small



2011: Wall plinth and opening with tiled lintel in the SW corner

square conduit [context 3360] at the base of the extreme SW corner under a two course tile lintel. Was this a drain outlet or water inlet for a bath or thermal inlet for a heated room, or did the plinths imply a suspended floor with the partition wall merely a sleeper for bearing joists and the conduit a drain to keep the underfloor area dry? It seemed that however much we excavated this feature we always ended up with more questions than answers.

The north east quadrant was proving equally enigmatic. The black sooty sand (3230) to the north edge gave way to a pinkish fill (3376) which was possibly the remains of an *opus signinum* floor as it began to appear to be more than just a tumbled layer of crushed tile and mortar and had a distinct layer of compacted chalk (3380) beneath it. By week 3 these two quadrants were sufficiently excavated for Steffan Klemenic (our assistant site supervisor in 2012) to draw the four faces that gave us a complete cross section in both directions. The other 2 quadrants were then taken down but a baulk was left beside the partition wall so that its stratigraphy could be compared with that of the wall section when subsequently excavated. When the western half of the wall was removed there appeared to be some distinct differences between the fills on either side with significantly no repetition of the thick *opus signinum* layer in the southern area.



An iron ring (SF65) possibly part of a buckle was found in the south west quadrant and a copper alloy 'wolf and twins' coin of c.AD330 (SF72) and a copper alloy ring with setting (SF78) were found in the surface of the south east quad. Sadly no datable items were found in sealed lower contexts so although we can suggest that WR2 was filled with sediment probably by the early 4<sup>th</sup> century based on the AD330 coin it is also possible that this artefact arrived as part of the sediment at a later date.

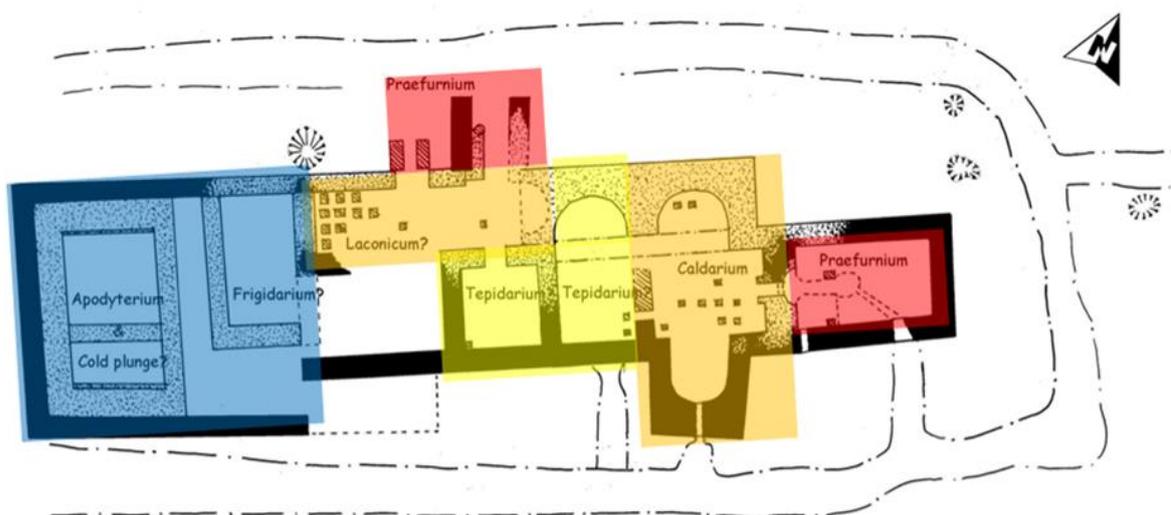
The black sooty fill in the NW corner, from which samples were taken for later analysis, suggests that this once recreational building was subsequently used for a more industrial purpose as per some of the fine rooms at Fishbourne Palace.

By the end of the 2011 season the interior of WR2 was fully excavated but there was no evidence that the structure had been capable of holding water however with so much of the best building material obviously robbed from the building, possibly still within the Romano British period, the lack of evidence could certainly not be taken as proof that we were not seeing the remains of a cold plunge pool.



### **Temperature zones**

For a presentation to the Lewes Archaeological Group I produced a diagram showing the probable temperature zoning for the bathhouse if considered as one building. This placed WR2 at the extreme cold end of the complex and therefore an ideal location for a cold wet use such as a plunge bath. It should be noted however that there may be quite a presumption in seeing the whole building in use at one time rather than in several phases.



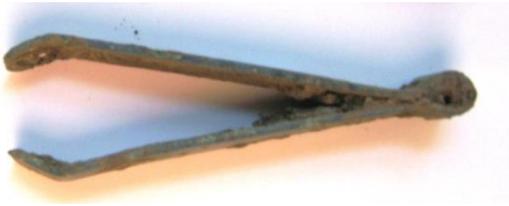
KEY cold areas : blue warm areas : yellow hot areas : orange furnace areas : red

A visit to Pompeii and Herculaneum left me wondering about the size and grandeur of the changing rooms in the bathhouses there and whether WR2 could not fulfil that function with the chalk platforms being the base of the seating and clothes storage areas that I had noticed in apodyterium in Italy.

## 2012 season

In 2012 the investigations of WR2 moved to the external structure. Any who were present during that 'summer' season will know that work on the western end of the site was continually hampered by deep flooding despite the valiant efforts, and constant racket, of a petrol driven pump kindly lent by to us by Chris Butler Archaeological Services Ltd (CBAS).

Raymond Jones, one of a guest volunteers from Heritage Malta endeavoured to locate the external exit of the drain from the south west corner and did manage to clear the conduit for the complete width of the wall save for one very large flint nodule which looked to be a deliberate part of the structure. However it was not possible to resolve a course of a drain outside the wall. Samples of the fill found within the conduit were retained for wet sieving after Raymond found part of an



ear wax spatula (right) from within the drain. In 2011 a pair of cooper alloy tweezers (left) in remarkable condition had been found just outside WR2's southern wall and these often form part of a toilet set which also includes an ear wax tool.



## Investigation of the walls

In July vertical photographs were taken by my co-site supervisor, Lisa Fisher, of the building debris to the west of WR2 where the material had the appearance of a collapsed section of wall rather than random tumble. It is hoped that subsequent analysis of these photographs, and the drawing by Jane Russell, may give us some indications of the structure of the walls above the current remains. The structure of the western wall was further explored by excavating a 500mm slot through its width began by John Kane and completed by Marta Bloch, our Polish volunteer. Of particular interest was any indication that the chalk and flint sections were of different periods of construction. It became clear that the chalk section, whilst faced with definite courses of well cut blocks on its inner surface, was far more fragmented where it abutted the sharp inner surface of the outer flint wall. There seemed to be no reason why the chalk against the flint section should have degraded and therefore it is probable that random rough chalk was packed behind the well built front courses supported by an already in situ flint wall. Whilst this suggests that the flint wall must have been built in order to pack the looser chalk against it does not preclude the two sections being constructed together with the outer flint section being raised slightly in advance of the chalk inner. This would be not unlike the wall construction referred to by Vitruvius, in Book 2, chapter 7, section 7 as filling the space between facings with "a lot of stones and mortar thrown in anyhow". At the base of the inside face of the chalk section was a thin flint foundation. No evidence was seen of any residual plastering on the interior face of the flint wall making the combined construction of both sections more convincing. The distinct subsidence



Wall section showing well laid chalk face with random chalk behind against the outer wall (top)

on the western end of the south wall could well have played a part in the collapsed nature of the flint section of the west wall with the infilling of the interior of the room helping to preserve the chalk facade. The considerable flooding that occurred during the summer of 2012 pointed to the potential for the washing out of the lime mortar from the flints, a material with which mortar cannot form a permanent bond.

The interior corners of the chalk sections were also investigated, or though not excavated, and it was observed that the shallow partition wall to the east ran from the edge of the northern flint wall right through to the face of the southern flint wall with the north and south chalk platforms abutting its inner edge. The western chalk section abutted the faces of the other two and so must have been built after them or as the last phase in a combined construction. No information was observed on whether the east wall had been built before, after or with the other chalk sections but it did appear that the partition wall across the structure was an integral part of the east wall particularly bonded into the northern section and not a later addition.

A section through the east wall showed that the *opus signinum* layer did not go beneath the wall suggesting that it was laid subsequent to the construction of this wall as well as abutting the deeper outer walls, supporting an interpretation of the east wall as part of the original structure.



August 2012: WR2 from the west showing the *opus signinum* floor layer in the northern area but absent to the smaller southern section.

### ***So had we got a plunge pool or not?***

The truthful answer is, in keeping with many other parts of this foundation level, robbed-out building, that too much evidence has been removed in early demolition to allow a definitive answer. This does not, however, stop us from serious interpretation of the data we do have and reasoned argument as to what this might suggest.

### ***What we have***

We have a very substantial structure at the western extremity of the bathhouse, at a substantial distance from either of the two praefurnium (furnaces). It occupies the lowest area of the building and is an unheated section of the complex. Its double thick walls could suggest the need for extra support or a special function. We have two distinct areas within the room with the larger northern part possibly having an *opus signinum* floor which appears to be absent in the smaller southern area. This southern area has a conduit through bottom of the west wall at the SW corner which could have taken drainage pipes or acted for ventilation. We have small plinths to the base of the north and south walls which could be a usable feature of the structure or a constructional detail such as a wider foundation course. We know that the rest of the remains represent a substantial bathhouse and that bathhouses of sufficient size have cold plunge pools.

### ***My conclusion***

I cannot see the inner chalk walls as buttressing against the subsidence of this end of the building as built after the flint exterior this would have potentially pushed the flint wall outwards and therefore have aggravated subsidence rather than mitigated it.

I see no obvious reason not to suggest that WR2 was the cold plunge facility of the *balneae* complex. I also suggest that the room probably provided a substantial changing and drying area, *apodyterium*, in the northern section with the plunge pool occupying the entire southern area beyond the partition wall. Any material used to line this pool could have offered valuable resource removed for reuse when this area of the bathhouse was decommissioned.



I put this forward as a personal interpretation, not in any way as a definitive answer, and will be very pleased to see alternative suggestions argued to forward the investigation into this most interesting section of a fascinating building.

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