

# **Production from Destruction: Change of Value of Recycled Decoration. The Roman Villa of Aiano – Torraccia di Chiusi (San Gimignano, Siena – Italy)\***

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## **Introduction**

The late antique villa of Aiano-Torraccia di Chiusi is located in the municipality of San Gimignano (Siena, Italy), in the territory of the ancient *Roman VII regio*.<sup>1</sup>

The archaeological site (fig. 1) lies on the border between the Roman civic territories of Siena, Volterra, and Florence; it is in the small Elsa valley, formed by its tributary Fosci, on the axis that connects the region in and around Siena to the Arno Valley.

In the Middle Ages, the *Via Francigena* ran through this valley, leading pilgrims from Canterbury to Rome.<sup>2</sup>

The site has been excavated since 2005 by a Belgian-Italian team led by Marco Cavalieri (*Université catholique de Louvain*). About 3,000 m<sup>2</sup> of the settlement has been excavated (fig. 2), but various archaeological surveys<sup>3</sup> estimate a surface of about 10,000 m<sup>2</sup>.<sup>4</sup>

Taken together, the information from the excavations, though still incomplete, and often difficult to understand, shows that the Aiano villa played an extremely prestigious role in the Tyrrhenian region.

## **Chronology**

The building presents at least six phases of occupation spanning from the 3<sup>rd</sup> to 7<sup>th</sup> century AD.<sup>5</sup>

Period 1: the settlement was founded between the late 3<sup>rd</sup> and the early 4<sup>th</sup> century AD.

The oldest building is located in the south-west area of the settlement: only the foundation walls, made of roughly hewn travertine blocks, are left of rooms A, B and E.

Period 2: between the late 4<sup>th</sup> and the late 5<sup>th</sup> century AD, the entire building underwent a monumental rearrangement in multiple stages.

From the late 4<sup>th</sup> century AD, the villa became wider, with the addition of a six-foil hall, surrounded by a five-foil *Ambulatio*. A small room in the southern part of this area has been identified as a rectangular “vestibule”.



Fig. 1: Location of the archaeological site.





Fig. 2: The excavated area of the villa (2005–2017).

Later on, between the late 4<sup>th</sup> and the early 5<sup>th</sup> century AD, the layout and flooring were changed, with the six foils replaced by three foils, after three of them were destroyed.

Three new rectangular rooms (H, I, L) were built after pulling down the foils.

Period 3: as a residential settlement, the site was abandoned between the late 5<sup>th</sup> and the mid-6<sup>th</sup> century AD; its furnishings and building materials were taken away to be recycled and reused.

Period 4: between the late 6<sup>th</sup> and the early 7<sup>th</sup> century AD, all workshops were closed down, and the site was therefore destroyed.

Period 5: until the mid-7<sup>th</sup> century AD, the ruins were occasionally used as a burial ground.

A grave was dug in room Q after the collapse of the roof and walls, and an adult was buried there; in the north-west corner of room Z a burial pit also contained the skeleton of a young male adult, buried there before the construction collapsed. Neither grave contains any goods, just a small and very badly preserved metal buckle. It is currently being restored and was found in the grave of the room Q.<sup>6</sup>

Period 6: contemporary age; the site was ploughed deep and flattened, layers were cut, and walls were shaved down to a mean depth of 75 cm from the ground level.

### **Period 3: abandon and recycle**

Between the late 5<sup>th</sup> and the late 6<sup>th</sup>/early 7<sup>th</sup> century, the decoration of the former residential settlement was removed and partially recycled.<sup>7</sup>

Among the decoration taken away from the villa, there are nearly 2,000 pieces of glass *sectilia*, originally part of the fish decoration of the wall panels.<sup>8</sup> They were found in pits and layers all over the surface of the site, but most of them come from pits in the south-eastern part of the excavated site.<sup>9</sup> They must have been taken to this area to be melted and reused as part of a process in which the settlement was systematically stripped.

Restorers in Palazzo Spinelli Group, Florence, are recomposing the glass *sectilia*.<sup>10</sup> They originally formed panels with representation of sea fish, such as breams, gilthead and morays, in framed groups of three or four (fig. 3).

These luxury products have the closest comparison in some glass fragments from Trier, dating back to the 4<sup>th</sup> century AD and assumedly made by Egyptian craftsmen.<sup>11</sup>

In particular, the central and southern part of the site contained marble fragments. They were not in their original context, but in layers dating back to the periods of





Fig. 3: Examples of glass *sectilia* with representation of sea fish.

abandonment and re-use of materials. About 1,000 fragments of different marbles came from Egypt, Greece, Numidia, Turkey and other quarries, such as Carrara (for some fragments of white marble). These were part of luxurious wall and floor revetments, systematically dismantled in the third period of the site.<sup>12</sup> Moreover, two fragmentary shafts of columns were found.<sup>13</sup>

Other parts of dismantled decoration of the site give us more information about the high level of the building: thousands of mosaic *tesserae*, either in stone or glass, some of them with gold foil decoration (*tesserae ialinae*).<sup>14</sup>

Lower quality decoration can be found in some out-of-context fragments of wall paintings, dating back to the 4<sup>th</sup> century.<sup>15</sup>

Only the late 4<sup>th</sup>–early 5<sup>th</sup> century floor of the central hall (trefoil hall) still remains *in situ* (fig. 4). This was made of *opus caementicium*, and mosaic details in geometrical and figurative patterns decorated the floor,<sup>16</sup> that was built after the refurbishment of the previous six-foil hall into a trefoil hall.

The central room must have had a taller ceiling: the collapsed roof found in this room must have been arched and in *opus latericium*.

During the 3<sup>rd</sup> period of the building, the spaces and functions of the building itself changed. The original purpose of the decorations no longer existed, since they were disassembled or recycled during the last stage in the life of the site, when the villa became a sort of quarry and a small-scale plant.





Fig. 4: Remains of the floor in the trefoil hall.

Most crafts took place in two separate areas of the site: the southern area, including the Trefoil Hall, and the north-western one.<sup>17</sup>

Extensive plumbing system likely served such workshops, and only traces of this system remain: one manifold runs south of the Trefoil Hall and the other one flows into the *Ambulatio*, between room H and the “vestibule”.<sup>18</sup>

The proximity of materials as well as the state of preservation of these earlier places must have dictated the location of the workshops.

When found, the worktops were made with bricks, whose size and shape match the bricks of the collapsed arches of the apses of the Trefoil Hall.<sup>19</sup> Most of the bricks are rectangular and have three parallel lines made with the finger and crossing at the center



of the brick itself. Only in a few cases the worktops were made with rectangular bricks without any line.

No worktop was found with finger-drawn lines of circular or oval shape.<sup>20</sup>

Four rooms (H, I, L, and “vestibule”) around the Trefoil Hall supported craft activities: room H for pottery, room I for copper, and room L for gold.<sup>21</sup> The gold for the mosaic *tesserae* was in fact purified by cupellation, which was also used to purify gold alloys.<sup>22</sup>

The “vestibule” room contained a small glass-fusing kiln (fig. 5):<sup>23</sup> the glass workshop of Aiano probably specialized in recycling glassware from the Roman villa, with the aim of producing small ornaments.<sup>24</sup> This practice of collecting and reprocessing glass shards reduced production costs: it required fewer raw materials and lower temperatures.<sup>25</sup>



Fig. 5: Small glass fusing kiln in the “Vestibule room”.





Fig. 6: Kiln.



Also, marble was destroyed and re-used. The southern part of area V contained hundreds of marble fragments,<sup>26</sup> and “marbles”, were found in the ceramic temper all around the site.<sup>27</sup>

To the west of the corridor, other three rooms hosted a number of workshops: room A for glass,<sup>28</sup> but perhaps for lead too; room B was used as a blacksmith’s workshop (for iron).<sup>29</sup>

The tests performed on the ca. 200 specimens found in this room revealed that they were probably recycled items and scraps: none of the discovered waste could be interpreted as the result of the purification or refining of raw iron.<sup>30</sup>

The purpose of room C is still unknown.<sup>31</sup>

Another room hosted a kiln (fig. 6), very similar in shape to type II/B *Cuomo di Caprio*, which could be adjusted to bake different items, such as clay for building materials, vessels, and ordinary ware.<sup>32</sup> Again, no waste materials were found.

The wide range of crafts, high level of organization, and coordination between the workshops seem to suggest that the aim of the manufacturing system was not only related to domestic consumption.

On-going investigations in other parts of the settlement<sup>33</sup> provided evidence of other manufactures, all involving the use of fire. However, their features and relationship with such workshops have not been completely understood not been completely understood yet.

A high number of worktops was found during the last years also in the north-western part of the building.

Room U most likely housed the remains of some baking processes.<sup>34</sup> Fragments of wall paintings<sup>35</sup> and fragments of dismantled mosaics<sup>36</sup> were found in this place.

Room G and room Z hosted worktops with no traces of waste. However, it is clear that in room Z the (now ruined) worktop was used in association with fire and maybe for a long time: the wall of the room is completely eroded, traces of fire are recognizable, and ashes were all around.<sup>37</sup>

### **A Peculiar Space: the so-called “Room K”**

Even more problematic is the so-called room K.<sup>38</sup> This is a long rectangular room with the remains of furnaces/cooking surfaces along two opposite side walls (figs. 7 and 8). All the kilns have clear burning and erosion marks on the back walls, and many of them are located at different heights, which means that the railings of the nearby kilns were reused or destroyed. This suggests that they did not work – or they were not closed – all at the same time.<sup>39</sup>

What was actually produced in this area is not yet known: there is no waste material that could help in this respect.



Fig. 7: Worktops in room K (eastern side).



Fig. 8: Worktops in room K (western side).



Recently, excavation focused on two new sections of room K towards the north, but no other worktop was found.<sup>40</sup> We can say that a specific part of room K has a concentration of worktops, namely near to the two accesses of the room: the door leading to room G and the door leading to the western (and unexcavated) part of the building.

On the eastern side, there are three worktops, partially or totally destroyed: two of them were carved in an artificial plain surface, which is recognizable only in correspondence with the worktops.<sup>41</sup> The northern and southern part of room K did not possess any traces of this artificial structure.

Almost four worktops lie in the western part of the room: two of them are big (158 × 114 cm and 141 × 111 cm respectively) and traces of fire were recognizable on the eroded wall behind them. The other two are smaller (53 × 40 cm and 71 × 43 cm respectively). The wall behind them is also burned, but not eroded. The worktops were made with reused bricks, sometimes with parallel lines that cross the center of the brick itself (smaller kilns), but sometimes with no lines on their surface (bigger kilns). The worktops did not have any trace of ashes, with the exception of the thin layer covering the worktop number 3.<sup>42</sup>

Despite the abundance of pottery fragments in the layers of the whole site, room K gave only a few fragments.<sup>43</sup>

Some hypotheses were considered in order to understand the function of the worktops, especially the four on the western side of the room K.

The first hypothesis regards the production of pottery. However, the shape of the cooking surface<sup>44</sup> and the absence of the perforated plate, pottery spacers, and wasters seem to exclude the production of pottery in this area. Moreover, the marks of the fire on the wall<sup>45</sup> behind the worktops and on the very thin parapets show that, whatever the production was in this area, it did not require high temperatures.

So, we decided to consider possible productions requiring lower temperatures.

The second hypothesis regards the recycling of glass: our glass kiln (in the vestibule) is very similar in size<sup>46</sup> and shape to the two small worktops.<sup>47</sup> However, clear traces of a covering – clay mixed with snail shells – were found for the glass kiln in the vestibule, but this was not the case for the room K worktops. Moreover, in room K we did not find any proof of glass working in the nearby worktops, such as traces of waste materials, glass fusion, or water supply.<sup>48</sup>

The third and last hypothesis is very preliminary but may be the most probable one at this stage of research, is the use of these worktops (or some of these worktops) as cooking surfaces for food. It is noticeable that such a complex and organized site, with workers involved in different production inside the various rooms, had to have places for the preparation of food. The production of food, especially bread, does not require very high temperatures and does not produce much waste.<sup>49</sup> Among the few archaeological materials from around the worktops, most of the fragments are connected with kitchen ware and bread-baking pans, now part of an ongoing study.<sup>50</sup>

### Notes

\* This paper was submitted in 2018. For an update about the chronology of the archaeological site, please see Cavalieri 2020. For an update about the glass beads, please see Boschetti et al. 2021

<sup>1</sup> See <<http://www.villaromaine-torracciadichiusi.be>>. See also: Cavalieri 2008; Cavalieri 2009; Cavalieri 2010a; Cavalieri 2012; Cavalieri 2013; Cavalieri – Orlandi 2014; Deltenre – Orlandi 2016; Cavalieri 2016; Cavalieri et al. 2019a.

<sup>2</sup> For the Via Romea in Tuscany, see Patitucci Uggeri 2004. For the Via Romea in the nearby of Aiano – Torraccia di Chiusi, see Chellini forthcoming.

<sup>3</sup> For archaeological surveys in Aiano – Torraccia di Chiusi, see Cavalieri – Pace 2011.

<sup>4</sup> Cavalieri 2016, 109.

<sup>5</sup> For the chronology of Aiano – Torraccia di Chiusi, see also Cavalieri 2016, 110 f.; Baldini et al. forthcoming, Cavalieri et al. 2019a.

<sup>6</sup> Lenzi et al. 2016.

<sup>7</sup> For recycling in Roman villas, see for example the studies by Beth Munro (Munro 2010; Munro 2011; Munro 2012).

<sup>8</sup> Cavalieri et al. 2016; Cavalieri et al. 2017.

<sup>9</sup> The so-called “area 5000”. Nevertheless, the glass *sectilia* come also from other parts of the site: a few of them also were found during the 2018 campaign, in the northern area of the archaeological site (area 13000).

<sup>10</sup> Cavalieri et al. 2017; Cavalieri et al. 2019b.

<sup>11</sup> References in Cavalieri et al. 2016, 289 n. 10. For comparisons, see Merten 2012.

<sup>12</sup> About this topic, see Cavalieri et al. 2012a; Cavalieri et al. 2013, Lenzi – Cantisani forthcoming.

<sup>13</sup> The first shaft was found decades ago, just before the beginning of the excavation. The second one was found in 2012. The latter seems to be carved in a grey marble.

<sup>14</sup> Cavalieri 2011, 618–620 in particular.

<sup>15</sup> Cavalieri et al. 2019c.

<sup>16</sup> Cavalieri 2010b.

<sup>17</sup> Traces of worktops were found in most of the rooms of the site.

<sup>18</sup> Deltenre – Orlandi 2016, 76.

<sup>19</sup> Faralli forthcoming. The southern arch was dismantled in antiquity; the collapsed north-western and north-eastern arches were found during the excavation of the Hall.

<sup>20</sup> Most of the tiles with circular or oval patterns were found during the 2008 and 2018 excavation, either in the Ambulatio or in the northern part of the so-called “room K”.

<sup>21</sup> About these rooms, see in particular Deltenre – Orlandi 2016.

<sup>22</sup> About this topic: Cavalieri 2009, 511 f.; Cavalieri 2013, 299 f.

<sup>23</sup> See in particular: Cavalieri – Giunlia-Mair 2009; Cavalieri 2011; Deltenre – Orlandi 2016, 80–82.

<sup>24</sup> Cavalieri 2011.

<sup>25</sup> Deltenre – Orlandi 2016, 81.

<sup>26</sup> Cavalieri et al. 2012a in particular.

<sup>27</sup> Cantisani et al. 2012.



<sup>28</sup> See Cavalieri 2009; Cavalieri 2013; Deltenre – Orlandi 2016, 80–82.

<sup>29</sup> See for example, Cavalieri et al. 2009, 513 f.; Deltenre – Orlandi 2016, 77–79.

<sup>30</sup> Deltenre – Orlandi 2016, 77 f.

<sup>31</sup> Room C is in the south-western part of the site. The soil of the room shows clear traces of activities connected with fire, and there is a structure made with fragments of bricks and stones in the north-west corner of the room itself. No waste material was found in order to understand the function of this room: only fragmented pottery, tiles, and mosaic tesserae.

<sup>32</sup> Recently, Cuomo di Caprio 2007, 524 (with other bibliography).

<sup>33</sup> The 2017–2018 campaigns only explored the northern and north-western part. Clear traces of fire activities also are recognizable in these new parts of the site.

<sup>34</sup> For room U: Cavalieri et al. 2012a; Lenzi et al. 2016. The excavation of room U, a big room with four pillars, is still ongoing. The last excavation campaign, in July–August 2018, showed further traces of baking activities in the northern area of the room. The results of the campaign are preliminary and part of an ongoing study. For further information, see the 2018 Summary of the excavation in Aiano – Torraccia di Chiusi on [www.fastionline.org](http://www.fastionline.org).

<sup>35</sup> Cavalieri et al. 2019c.

<sup>36</sup> Cavalieri et al. 2013.

<sup>37</sup> The worktop was maybe re-built at least once.

<sup>38</sup> Deltenre – Orlandi 2016, 84 f.; Lenzi et al. 2016.

<sup>39</sup> For a preliminary study of this room, see Deltenre – Orlandi 2016, 85.

<sup>40</sup> The 2017 and 2018 campaigns involved the excavation of the two new sections. They lie in the northern part of room K. The first one is visible in fig. 2.

<sup>41</sup> The structure is made mostly with mortar and stones.

<sup>42</sup> In this layer was found a glass mosaic tessera. There is no evidence for a possible covering of the kiln, except for kiln number 2: in this case, a possible collapsed covering was found (small fragments of bricks and earth covering the entire surface of the kiln).

<sup>43</sup> About the pottery in Aiano – Torraccia di Chiusi, see for example Fumo 2010; Cavalieri et al. 2012b. The study of the pottery in this room is still ongoing.

<sup>44</sup> See Cuomo di Caprio 2007, 483–546.

<sup>45</sup> The wall is made with regular blocks of travertine and mortar.

<sup>46</sup> 65 × 46 cm approx.

<sup>47</sup> About this kiln in particular, see Cavalieri et al. 2010, 91 f. and Cavalieri – Giunlia Mair 2009.

<sup>48</sup> In the kiln of the vestibule were found some drops of glass, as well as channels and pits for water.

<sup>49</sup> For the preparation of bread in Roman times, see for example, in general: Ampolo 1994 and Manetta 2016. About fireplaces for heat and the preparation of food, see for example: Pizzinato 2014 (especially for the term “piani di cottura”). The cooking surfaces, when made with tiles and bricks, could be set close to a wall, as in Aiano – Torraccia di Chiusi, in Roman and Medieval times (see for example Rovina et al. 1999, 181 f.; Cattaneo et al. 2008, 88; Stampfer 2008, 57–61).

<sup>50</sup> About bread-baking pans, or “baking covers” (testi da pane), see for example Patterson 2017, 130.

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