

An old notice board at ancient Herculaneum studied using Near Infrared Reflectography

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Received 28 July 2007; received in revised form 31 October 2007; accepted 18 November 2007

Abstract

An old notice board, a rectangular plastered area on a brick wall, placed on the east side of the *castellum aquae*, a pillar, situated near the crossing between *IV cardo* and *decumanus maximus* at ancient Herculaneum (Italy) has been analysed using Near Infrared Reflectography (NIRR). The notice board was used to display inscriptions (*Tituli Picti*) painted on it and was used at least twice hiding older inscription under a whitewashing layer (*dealbatio*). In 1930s Amedeo Maiuri excavate the *castellum aquae* and Matteo Della Corte transcribed the visible inscription and removed it by mechanical abrasion to read the underlying (and older) one that resulted only partially readable. The notice board presents several open questions of interest for archaeologists: no graphical or photographic documentation of the removed inscription is available so that its layout is unknown; currently visible inscription (the older one) has been damaged by mechanical abrasion and environmental action so that it is impossible to understand the subject of the edict; the presence of two superimposed inscriptions suggests the possible presence of other ones.

NIRR is a non-destructive imaging technique based on the different optical behaviour of pictorial layers under visible (VIS) and near infrared (NIR) radiation and is mainly used in painting analysis to allow reading of under-drawings or “pentimenti”. The use of this technique has been able to give at least partial answers to the open questions concerning the notice board: NIR images increase the readability of the currently visible inscription, evidence traces of the removed (ablated) inscription and allow reading a new (underlying) inscription written in cursive using some fortuitous material.

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Keywords: Near Infrared Reflectography; Non-destructive analysis; Inscription; Charcoal; Whitewash; Herculaneum

1. Introduction

Public documents in Greece and in Rome were usually permanently or temporarily displayed in public places. Documents intended for permanent display were inscribed on bronze or stone, but non-public (such as payment lists) and some public (such as temporary notices) documents were written on less “stable” media and, sometimes, “wiped-off” when no more necessary or when an update was required (Rhodes, 2001a). In Rome documents intended for temporary display were often written by black ink (*atramentum*) on a white (whitewashed) board (Rhodes, 2001b). Therefore examples of such

inscriptions (e.g. edicts or election slogans) have been found in Pompeii and Herculaneum. Environmental, and sometimes human, actions have induced degradation of exposed surfaces: for example a substantial difference in paintings’ visibility has been observed between mural paints in Pompeii and similar mural paints stored more than 150 years ago in MANN (Museo Archeologico Nazionale di Napoli) (Knuutinen et al., 2007). As a consequence, there are some controversial readings of inscriptions in Pompeii and Herculaneum sites (Varone, 2000; Pagano and Balasco, 2000). Moreover in multi-layered inscriptions it is of great historical and cultural importance to be able to recognize the presence of wiped-off inscription and read them using non-destructive techniques.

The notice board on *castellum aquae* in Herculaneum presents several interesting open questions. It (Figs. 1 and 2) is

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Fig. 1. The *castellum aquae* in ancient Herculaneum (Italy) near the crossing between *IV cardo* and *decumanus maximus*. The notice board, protected by a glass, is on the right of the pillar.

placed on the east side of the *castellum aquae* situated near the crossing between *IV cardo* and *decumanus maximus* at ancient Herculaneum (Italy) and consists of a rectangular plastered area about 89 cm broad, 59 cm high and 1 cm thick on a brick wall. Some inscriptions (*Tituli Picti*) were painted on it to communicate to the Herculaneum inhabitants the measures deliberated by the town authorities. The notice board has been

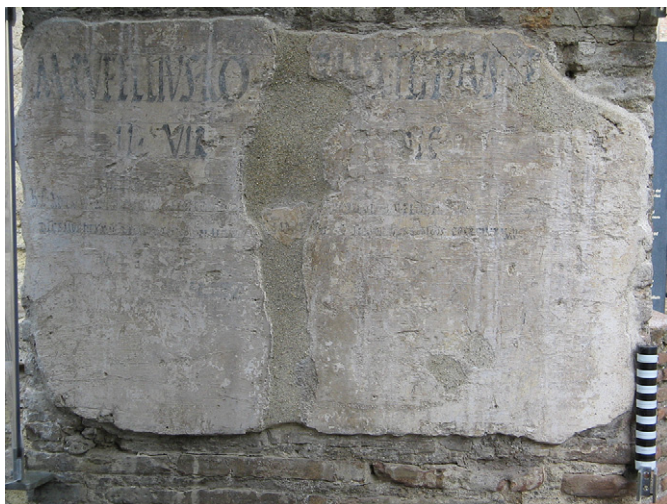


Fig. 2. The notice board on the *castellum aquae*, as is currently visible (protection glass has been removed).

reused hiding older inscription under a whitewashing layer (*dealbatio*), used as background for newer one. Characters were painted using *atramentum* (Plinius), a term used by Romans to indicate any black colouring liquid, like ink, paint or dye (Augusti, 1967; Moeller, 1968; Colombo, 1995; *Thesaurus Linguae Latinae*). Seven horizontal parallel lines (*ordinatio epigraphica*) were engraved on the wet plaster in the upper half of the notice board to help in writing characters in an ordered way. A large vertical break, 5–12 cm broad, in the middle of the notice board divides it into two almost equal parts. The origin of this break, currently filled by some plaster, is another of the open questions concerning this finding.

Maiuri (1958) discovered the *castellum aquae* in 1937–1938, during the excavations of the superior half of the *V insula* and proposed to date it considering the build of the aqueduct of Herculaneum as *terminus post quem* and the Vesuvius eruption as *terminus ante quem*; so the *castellum aquae* can be dated from Augustan age (i.e. 27 BC–14 AD, Augustan principality Age) to 79 AD (Pagano, 1997, 2001). The notice board on the *castellum aquae* can be dated to the same period but a more accurate dating of each inscription could be possible only by prosopographic studies regarding the Herculaneum town authorities (Pagano, 1992; Camodeca, 2006) mentioned on the notice board and this requires certain reading of the names of *duumviri* cited in the inscriptions.

Matteo Della Corte (Della Corte, 1958; Ciprotti, 1970) studied for the first time the inscriptions on the notice board in 1938. He read and transcribed (Fig. 3), without taking any photographic or graphical documentation, an edict (here we refer to it as inscription n.1) enacted by **M. [Alf]icius Pa[u]lus**, the *aedile* of the town, the authority responsible for maintenance of public places and building and for watch of markets and morals. The edict forbids dung discharge near the *castellum aquae* and fixes the sanctions: free citizens violations would have been punished by paying a fine whilst slaves would have been lashed.

The *dealbatio* on which this inscription was written was slightly scraped in two points, so that Della Corte could glimpse, under the whitewashing layer, some characters belonging to another, and therefore older, inscription (inscription n.2). The scholar decided to remove, by means of careful mechanical abrasion, the upper whitewashing layer in order to examine the underlying inscription n.2: he removed the whitewashing layer just from the upper half of the notice board, corresponding to the area where the *ordinatio epigraphica*, not belonging to inscription n.1, was visible. The currently visible inscription n.2 (Fig. 4) is a measure enacted by **M. Rufellius Ro[manus?]** and **A. Tetteius Se[verus]**, *duumviri* of the town (Della Corte, 1958; Ciprotti, 1970). According to a recent interpretation of the scholar Camodeca (2006), the integration of the *cognomen* of the first *duumvir* should read **Ro[bia]** instead of **Ro[manus]**. He proposes this new integration considering a shorter gap than the one supposed by Della Corte, the central break denoting the earlier presence of a water pipe and reading the first three characters of the same line on the right half of the notice board **-RIA** or **-BIA**. In accordance with this interpretation, even the *cognomen* of the

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