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Report on the conservation of a wicker basket for

Oxford University Department of Continuing Education

By

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INTRODUCTION

The report describes the cleaning, stabilisation and investigative conservation process of a Roman wicker basket from the site of Marcham, Oxfordshire, excavated by a team under the supervision of the Department of Continuing Education, Oxford University.

DESCRIPTION AND CONDITION

The basket was retrieved as a big block of wet soil inside which the object was protected and consequently stored with plastic sheets into a sealed plastic box. Smaller fragments of the basket were also stored inside the box as well as a block of soil containing what it was suggested to be part of the original handle. The vegetable fibres were supported by soil as well as a clay-like material in the interior which prevented the collapse of the structure. A great part of the basket structure has survived and presents a good physical condition. Only in some limited areas the strands are loose and damaged, especially close to ending points.





METHODOLOGY

The basket was X-rayed using the in-house Faxitron cabinet unit but because of the density of the soil block no clear image was obtained.
The soil was gradually removed from the exterior sides using running water with soft brushes and wooden spatulas until the basket surface was revealed. The same procedure was used for the block containing the “handle” bits. The small soil blocks containing basket fragments were cleaned with tap water and soft brushes.
The soil in the interior area of the basket was left in situ during pre-treatment with polyethylene glycol (PEG) 1500 wax because it was a good support for the woven structure. The basket was placed together with the soil fill and several small Plastazoate supports on a piece of corrugated plastic board and tightly wrapped in stretch bandages before being immersed into the PEG 1500 solution. The initial concentration of the solution was 5% w/v in water and increased every two weeks by 5% until the desired concentration of 40% PEG 1500 was reached. A broad-spectrum biocide (0.2% Linkicide KMC) was added to the solution at the beginning of the procedure to prevent mould growth in the tank.

Following consolidation with PEG wax the basket was placed in a chest freezer and frozen to a temperature of -5°C before being freeze-dried in the HETO unit (freeze-drier run number 337). The end point of this procedure was determined when the temperature within the woven structure was stable and close to ambient room temperature, after a total of 8 days.

After freeze-drying excess PEG wax on the basket surface was removed using gentle heat and absorbent paper towelling. At this point is was decided not to undertake any further excavation of the interior, with the remaining soil left in situ to provide physical support to the woven structure.

Fragile areas of the basket were consolidated using 3% w/v Butvar B98 (a polyvinyl butyral resin) dissolved in Industrial Methylated Spirits. This was carefully applied with a brush or pipette.

Another X-ray was taken at this stage which shows small dense fragments to be present inside the basket, probably stones.







A few loose strands coming from the surrounding block of soil and originally part of the basket were left untreated. After air drying they were bagged to be used for further investigation if required.

RECOMMENDATIONS

The basket is now stable but remains extremely fragile. It should be stored in a stable environment, preferably between 55-60% Relative Humidity and handled with extreme care.