

6.10 DEAD CHRIST



Cast before conservation - front



Cast after conservation - front



Cast before conservation - back



Cast after conservation – back

6.10.1 DESCRIPTION OF THE OBJECT

TITLE: Dead Christ, after Michelangelo's 'Pieta', 1498 - 1499

NUMBER(S): 045, 044 (076)

TYPE OF OBJECT: Sculpture, plaster cast, with a wooden and metal structure inside.

MAKER: Unknown

SIGNATURE/INSCRIPTION: None

DATE: 1831

OWNER/ LOCATION: Edinburgh College of Art, Lauriston Place, Edinburgh, EH3 9DF.

DIMENSIONS/WEIGHT (APPROX): H: 1,150mm L: 1,520mm W: 670mm

Weight (approx):

6.10.2 CONDITION REPORT BEFORE CONSERVATION

STRUCTURAL STABILITY: Poor. At the rear of the cast the wooden armatures are loose and some broken; the metal elements are corroding and have rust-stained plaster around them. At the front of the cast: open cracks to the neck, chest, torso, both arms and to the projecting leg as well as to the base.

SURFACE DUST AND DIRT: Severe, 100% coverage, with thicker dirt concentrated in the details and crevasses, as well as at the rear of the cast.

VISIBLE PAINT LAYERS/UNSIGHTLY MARKINGS: Layer of modern cream-white paint under a modern dark wax over the entire surface of the cast. Blue and brown paint graffiti on the figure's face; brown and other coloured drips and splashes over the cast in uneven random areas; pencil graffiti over the projecting shoulder, and general surface grime.

CHIPS AND LOSS: Areas of old loss: little finger on Christ's right hand; Christ's nose. New areas of loss: missing area of plaster in between open cracks on Christ's chest; large damaged missing area at the edge of the cast Christ head.

ABRASIONS: 20% of surface suffers from abrasions.

PREVIOUS REPAIRS: From college archives we know that casts have been previously treated many times but unfortunately the documentation is not very detailed, so we don't know what treatment exactly they have received. Around 1990, almost all the free standing casts were painted with a two-part patina consisting of a cream-white paint with an over-layer of wax. There is evidence of previous repairs to the big toe, knee and calf of the projecting leg.



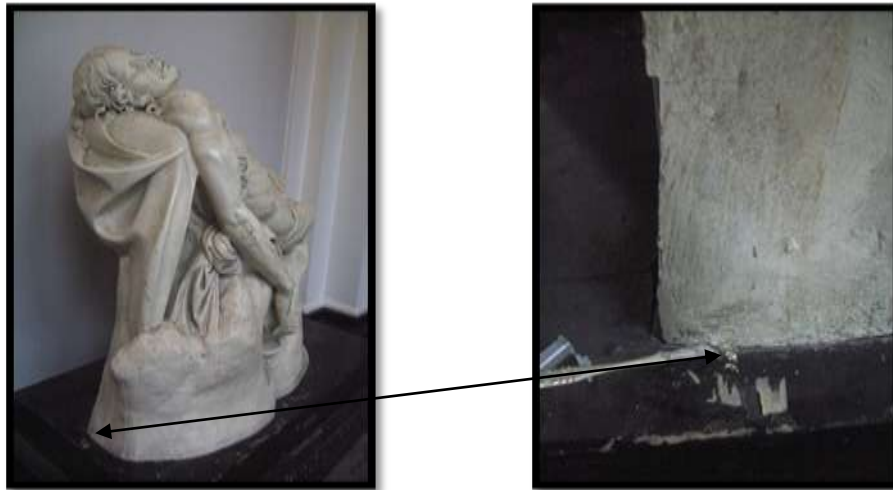
Paint splashes
Chips, abrasions and missing surfaces
Areas of previous repairs
Cracks

6.10.3 ORIGINAL MATERIALS AND TECHNIQUES

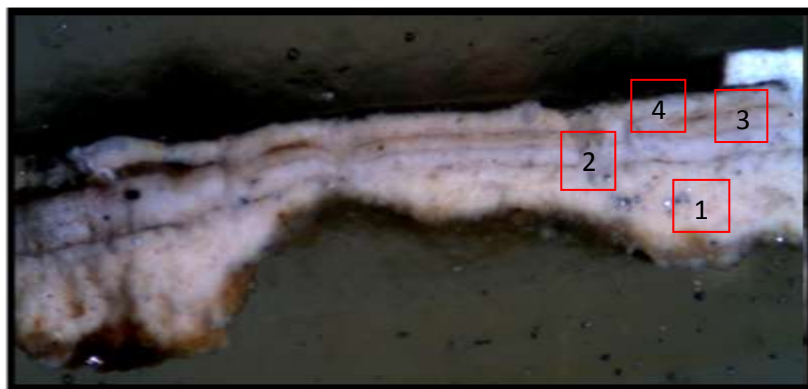
The object is a plaster cast with a metal reinforcing structure inside. The surface of the sculpture is polychromed with a layer of modern cream-yellow paint under a modern dark wax over the entire surface. In order to find out the stratigraphy, and to identify the materials of the polychromed layer, samples of the plaster with paint were taken from the cast and sent to the University of Northumbria for analysis.

**Investigation of coating samples from ECA Plaster Cast Collection, Edinburgh.
Consultant: Brian W Singer.**

Dead Christ – Cross-section



Area of paint sample

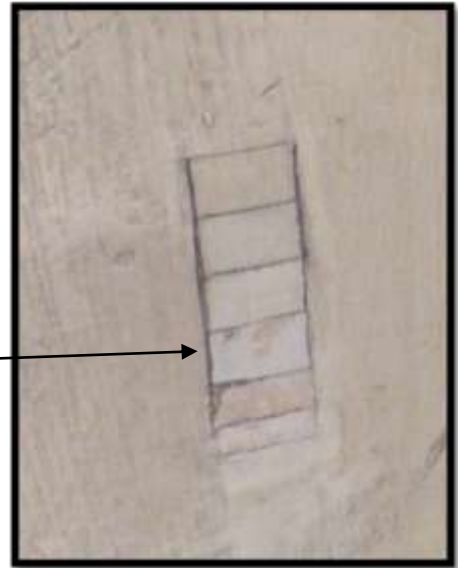


Cross-section sample from cast of Dead Christ

The layer at the bottom, as photographed, seemed to be a mixture of white and yellow pigments and coarse yellow/orange material and it's followed by a white layer and two pale yellow layers. The lowest layer and the third layer from the bottom in the illustration fluoresced orange-yellow in UV light and one or both of these layers may contain shellac. There are dark lines visible on the photo between the layers, this may be dirt or discoloured and dirty varnish/wax.

Paint scrape test

A small test area of the surface on Christ's leg was scraped delicately with a scalpel, to reveal layers of paint similar to that of the cross-section analysis.



Paint Scrape Tests

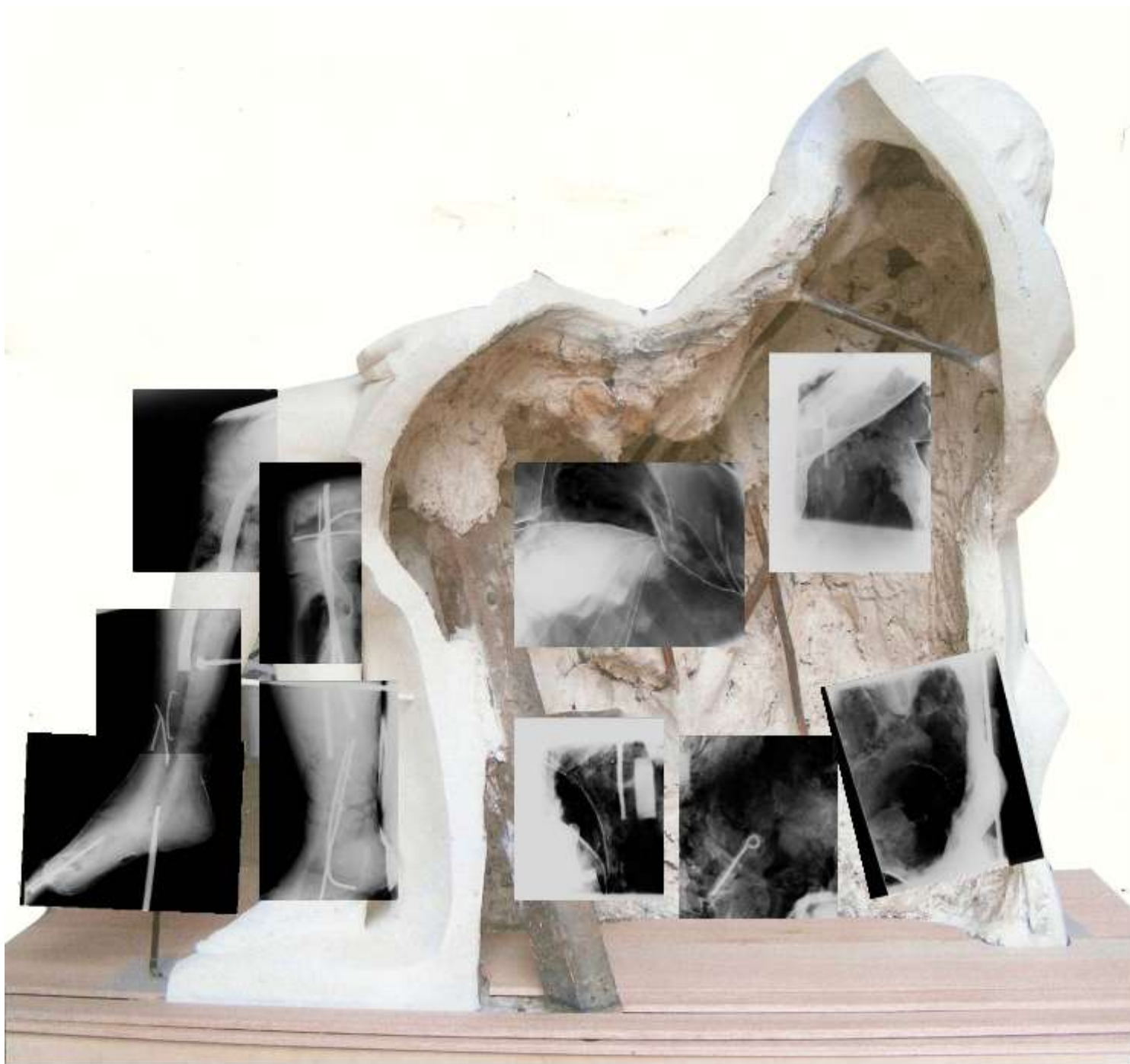
1. Surface of the cast before conservation with old, dirty and discoloured wax.
2. Pale yellow layer
3. Additional pale yellow layer
4. White layer
5. Discoloured surface of the plaster with possible layer of shellac
6. Plaster

Portable Digital X – Ray photographs

The cast was transported to a veterinary surgery to enable analysis of the sculpture to be taken using their Portable Digital X-Ray machine. The X-Ray photographs allowed us to see an internal metal armature in addition to nails/screws etc supporting more recent repairs.



X-Ray photographs of projecting leg



Dead Christ/ Pietà:

Portable Digital X Ray's carried out by Padraig Egan of Links in Haddington, on 29th of July 2010.

6.10.4 TREATMENT REPORT

- Prior to any conservation treatment, the cast was photographed. This photographic documentation was continued throughout all conservation processes.

Tests were completed

- Initially, the cast was dry cleaned with soft brushes and Wishab Sponges with a rubber-nozzled vacuum to pick up the loose dust and dirt.
- Following a variety of wet cleaning spot tests, the painted surface of the cast was cleaned with V&A mix and white spirit, using cotton wool swabs.



Cleaning tests with: 1 – Natural enzymes, 2 – V&A mix, 3 – White spirit, 4 – 5% Vulpex, 5 – Anjusil



Cast during wet cleaning

- The raw plaster surface to the rear of the cast was cleaned with Anjusil. The application of Anjusil was repeated in places where necessary.



Cast during cleaning with Anjusil



Relocating the cast on to the new plinth

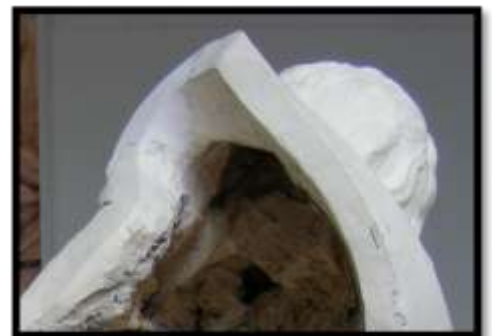
- Prior to starting the process of conserving the Dead Christ Cast one of the old castors on the plinth was found to be broken, making the plinth unstable and difficult to move. To address this problem, it was necessary to carefully remove the fragile plaster cast from the plinth.
- The cast had been built into the plinth and therefore all fixings and condition were hidden.
- Thorsten Hanke the Joiner on this project who worked on all the Plinths, carefully cut around the base of the sculpture to remove the top plinth cover. This revealed the structure of the plinth, and it was also discovered that the plaster cast was still attached to an original solid wooden support separate to the plinth.
- Our next work was to remove the plaster cast from the old plinth, this involved manoeuvring an A-frame aluminium gantry with two block and tackles into position over the sculpture, then with the aid of slings and Plastazote softening to protect the plaster, the Cast was lifted out of the original Plinth. Utilizing the original solid wooden base, this ensured the sculpture was safely supported during its removal and installation straight into the new plinth. In order to minimise the potential for future damage, caused by vibrations during the moving of the cast around the college, a softening layer of Plastazote was placed between the new plinth and the original wooden support of the cast.



- All areas of raw plaster were given an application of 10% Paraloid B72 in acetone to provide an isolating layer between the original plaster and the repairs.

Works to structural cracks and damage following previous handling and physical use

- Larger areas of loss such as the drapery above the head of Christ and those areas which required additional structural support were filled with an inert filler and reinforced where necessary with stainless steel dowels. These dowels were held in place with polyester resin. Areas of loss and chips were filled with white micro-balloons mixed with 12% Paraloid B72 in acetone.



Details of fill and dowel repairs

- There are both metal and wooden supports to the rear of the cast. The broken wooden batons were repaired with an appropriate adhesive and the loose batons were held securely in place with an inert filler. The ferrous metal elements were treated with a 5% Tannic Acid and isolated with 20% Paraloid B72 in acetone to stabilise and prevent further corrosion.



Rear of the cast during conservation



- The inert filler and the unsightly rust staining that was visible on the plaster were toned out with paints to blend in with the surrounding patina.



New plaster elements
Metal elements under layer of plaster
Removed metal elements

- One of the most vulnerable parts of the cast is the projecting leg which has been damaged several times during the history of the cast. The outstretched leg had been supported by a metal rod inserted into the foot and up into the leg. This had become loose, and was no longer functioning as a support. In order to address this problem, and to prevent any future damage, it was necessary to re-attach the metal support to the plinth. A bespoke two-part metal attachment was installed to firmly connect the metal supporting rod to the plinth and to hold the leg securely in place.

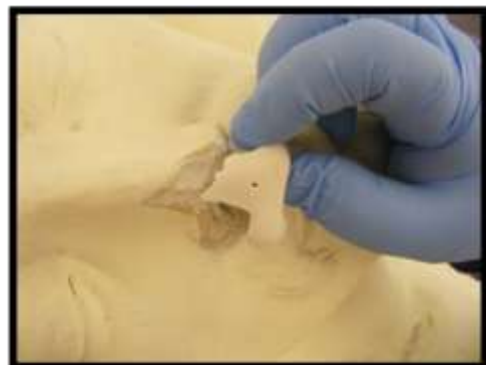


Projecting leg support: 1- old; 2 – new

- The X-Rays taken of the cast provide accurate evidence of new fixings and original fixings, in particular to the legs and around the base. The re-modelled big toe on the outstretched foot was a modern repair proved by the visible modern screws and nails visible in the X-Ray's, that had been used to form an armature to support the repaired toe. Furthermore, photographs of the original marble sculpture of Michelangelo's Pieta, located in the Vatican, showed that the remodelled toe was a different shape to the original. In order to improve the visual appearance of the sculpture a decision was made to remove and replace the previous repaired toe as well as to re-instate other missing elements such as the nose and the little finger on the right hand.



- Due to the modern over-paint being applied over the damaged nose, toes and the little finger, these painted areas needed to be removed with an appropriate paint remover, careful not to disrupt any original surface.
- Following research, another Dead Christ plaster cast of the similar date of manufacture was found to be located in the Royal Academy, London. Unfortunately, the little finger in the Royal Academy cast was also not original, therefore we requested that moulds were taken from only the nose and big toe so as to enable us to cast and re-instate these missing elements.
- Plaster was poured into the silicone rubber mould and the newly cast elements were installed with pigmented plaster and Perspex dowel in the case of the big toe.



Repair works to the nose and the big toe.



Nose and big toe being reattached to the cast

- All the fills were toned out with fine artist's acrylic paint, mixed with matting agent, to match the surrounding patina.
- Finally, the entire cast was given an application of micro-crystalline wax so as to protect the surface. Prior to application, the wax was mixed with pigments: black and raw umber. (requested to be similar to the previous wax coating)

6.10.5 MAINTENANCE PROGRAMME

CLEANING

The cleaning programme would involve the trained operatives, wearing the appropriate PPE, (nitrile gloves must be worn to protect the plaster as well as the operative) removing the loose dust using soft brushes and a vacuum cleaner with a rubber nozzle that would have muslin attached to its end. The muslin prevents any potential damage to the plaster from being lost in the vacuum cleaner. Any fragments that are dislodged, and their locations on the cast, should be documented and wrapped carefully in acid free tissue prior to being stored in a safe location. A trained conservator should be contacted immediately in order to repair the damage.

NB At no time should cleaning products or any liquid (including water) be used.

HANDLING AND CARE RECOMMENDATIONS

Certain measures should be taken prior to and during the moving of these pieces:

1. It is recommended that all technicians and at least one member of the Curatorial/Archives Dept. should complete a course in sculpture handling. Any moving of sculpture should involve the attendance of at least one person who has attended such a course. The National Galleries of Scotland can supply the name of a recommended course.
2. A manual on the handling of sculpture should be made available to staff and students. ('The Care and Handling of Art Objects' by Shelley is recommended.)
3. Before handling an object it should be examined closely and any old repairs and structural weaknesses noted. Do not test or probe areas that appear weak. Never grasp projecting elements (arms, etc.) of the object as they will not support the weight.
4. Gloves should always be worn when handling or touching objects as acids and salts from perspiration can damage many materials especially plaster.
5. Report any damage to the object immediately and collect all fragments before leaving the area.
6. The object should be well protected with padding in the form of foam, Plastazote and bubble-wrap especially any fragile or projecting areas that are likely to catch on doorways etc.
7. Avoid haste and confusion while handling as this can result in injury to the handlers or damage to the object. The route to be taken, door sizes and the space for the object at the receiving end should be assessed before a move begins. Two people, at least, should be present throughout the move, one of them to open doors, steady the object where necessary and watch parts of it that the carrier cannot see.