TECHNICAL RECORD

Title: "Christ at the House of Martha and Mary"
Attribution: El Greco (Domênico Theotocopuli)
Size: 13¾" x 15¼"
Oil on wood panel

Collection: Mr. Christian Aall
11 Crestwood Drive
Clayton 5, Missouri

Date: 8 September 1954

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Summary of Condition before Treatment

Support: Wood panel - one-quarter inch in thickness - and heavily cradled. The cradle contained five rigid members (1" x 1 3/4"), spaced at one and one-half inches, except at top where the two members were spaced at one-half inch, with accessory wood glued to the panel between members. There were five free members (1" x 1/2"), spaced at two inches. All movable members were tightly bound and rigid.

The panel contained a slight lateral warp, with some intermediate warping between the cradle members. All structures gave evidence of severe internal stress. The wood of the original panel was split in several places. The greatest strain was found at the top, where the cradle members were close together and additional wood applied. The panel was split through to the paint surface at this area. There was extensive worm tunneling in the original wood.

Paint and Ground: All structures were somewhat desiccated and brittle. Severe cleavage, with some minor loss, occured along the split at the top of the panel. Several other areas of minor cleavage, and all paint and ground films gave evidence of effects of stress and strain in the panel.

X-ray indicated direct and sure execution of the painting. Some minor losses and old repairs were visible. There was some abrasion, and disturbance of the paint surface.

Some over-painting was revealed under ultra-violet light. This was confined mainly to the old repairs of less, and super-imposed glazes in the abraided areas. The two panels in the architecture at the left side were completely over-glazed with a color much darker than was indicated in the fragmentary original paint.

Surface Film: Composed of a soft resin varnish, reasonably heavy coating, with substantial drying-oil content. This varnish was deteriorated and discolored.

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Treatment

All varnish layers and over-painting were removed by solvent action, using combinations of acetone, xylol, toluol, and ether. There some older stains in the light areas of paint that were removed by treatment with ammonia in a wax emulsion.

After cleaning, the paint surface was faced with Tosa tissue, attached with poly vinyl acetate. Absolute attachment of the entire paint surface was assured, and the facing was sufficient to hold the paint intact during the removal of the cradle and first stage of the reduction of the wood thickness.

The cradle was then cut from the original wood. The panel was then reduced in thickness to approximately one-sixteenth of an inch, with chisels and planes. Damage by worms was found to be very extensive in the internal wood structures. In numerous placed the channels extended through to the painting

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ground. The wood was desiccated, and rotted in many areas, and its general condition could not be considered sound enough to carry the paint safely. It was decided, at this point, that complete transfer of the paint to a new support was advisable.

The wood was so weakened by reduction of thickness that it could now be pressed flat. The reduced panel was then ironed, paint face down, to a cardboard support, in a thin bed of wax.

With the painting so supported from the face, the remainder of the wood was carefully cut away from the painting ground. The gesso ground was lightly abraided to remove irregularities, and thoroughly infused with a hot solution gelatin glue size (1:16).

With the picture thus reduced to its original paint and ground, it was gently ironed to remove excess wax, and to obtain absolute contact of the face of the paint to the smooth flat cardboard surface, thereby achieving a perfectly flat plane.

The original ground was then leveled and reinforced from the back by the application of a piece of silk netting in a thin bed of gesso (composed of 1:16 gelatin size with chalk). When thoroughly dry, this surface was infused with wax-resin adhesive. A piece of unbleached linen canvas was then attached to the new ground with wax-resin, using a warm tacking iron.

Sections of balsa wood (1 1/2" x 1/2" x 5 1/2" in length, impregnated with wax) were then laminated to the canvas back, using a mortar composed of wax-resin, chalk, and balsa saw-dust. This laminated construction of small section of weak wood eliminated continuous grain, and possibility of internal stress, with the wax-mortar reducing the susceptibility to moisture.

Four cross struts of bass wood were then set into the laminated balsa wood panel at a depth of one-eighth of an inch, also with wax-mortar attachment. The purpose of these struts is for lateral support, and additional rigidity.

The entire back and edges of the new panel were then sealed with cork sheeting, attached with wax-resin adhesive.

The cardboard surface mount was removed, and the tissue and vinyl facing removed from the paint surface with toluol. Existing lacunae and irregular edges were inlaid with a wax-based filler, and the entire surface given a preliminary coating of poly vinyl acetate varnish.

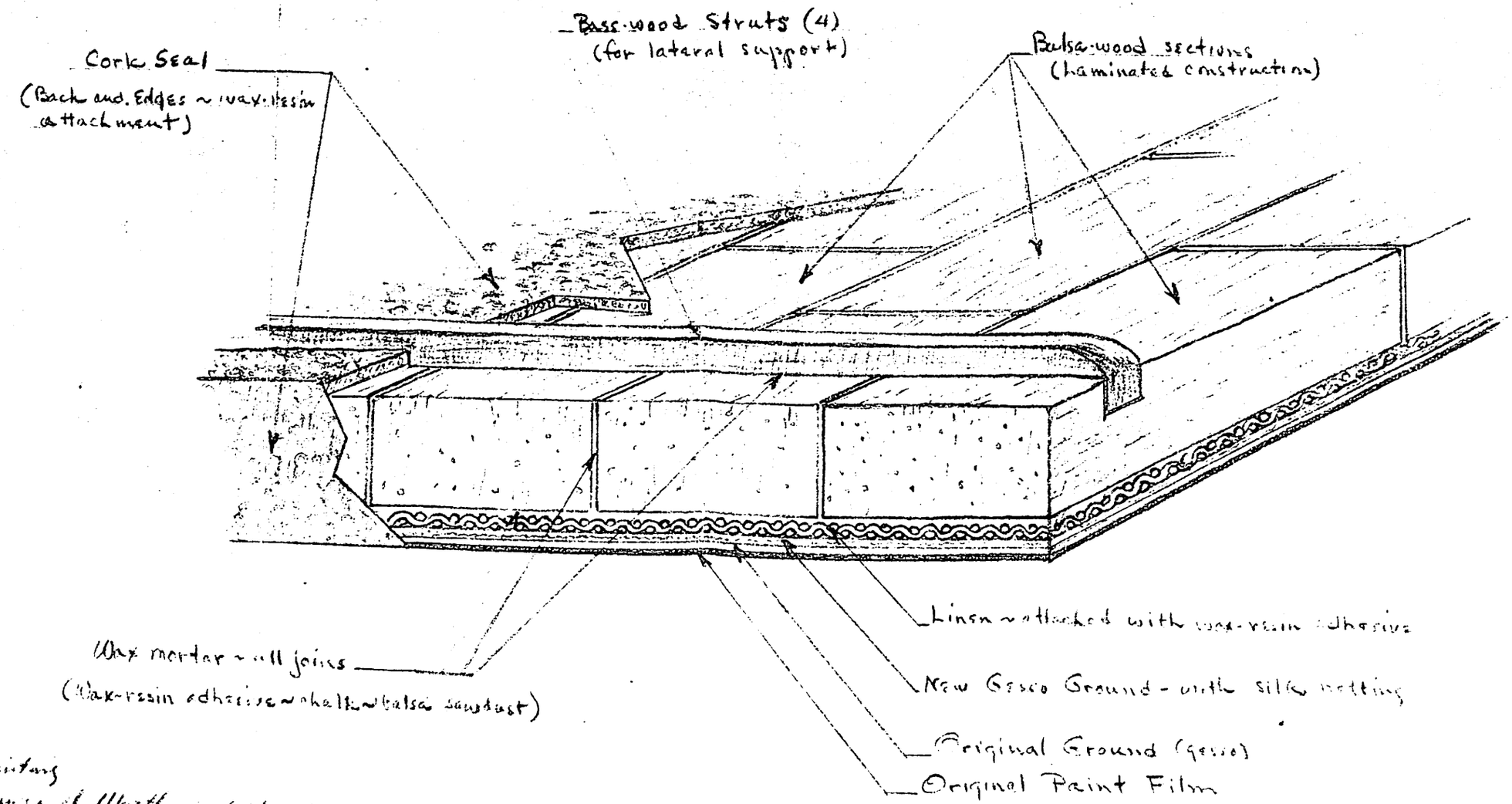
The in-painting and compensation of losses and abrasions was carried out with vinyl lacquer colors. Care was exercised to keep the retouching to a minimum, and in no way interfere with or alter the original design. Some slight over-glazing was necessary in the badly abraided areas, particularly the two panels in the architecture, and some dark modeling of the robes. The retouching is all visible under ultra-violet light, and can be removed safely at any time.

The paint surface was given a final protective coating of vinyl acetate varnish.

Signed: James Roth

James Roth, Conservator
William Rockhill Nelson Gallery of Art

Construction Drawing of New Support in Transfer Operation



El Greco Painting
"Christ in Houses of Martha and Mary"
Collection of the Christian Art