A 16TH CENTURY WOODEN POLYCHROME CRUCIFIX: FROM A PASSIVE TO AN ACTIVE MICROCLIMATE

Michael, Formosa
Conservation Division, Heritage Malta, Malta
Institute of Conservation and Management of Cultural Heritage, University of Malta, Malta
michael.formosa@gov.mt

The Crucifix
The crucifix dates back to the period when the Knights of St John were in Malta. Primarily it was at the city of Vittoriosa and was eventually taken to the Sacra Infermeria better known as the Knights Hall in Valletta. It was at the beginning of the 20th century when it was taken and exhibited in the chapel of St Luke’s Hospital (SLH) at Pata where it became very devotional especially to the sick. On the 29th September 2007 it was transported to the chapel at the new Mater Dei Hospital (MDH) at Birkirkara.

Monitoring relative humidity and temperature
A data logger was placed at the base of the cross and set to read hourly values of RH and T for 2009. Although mean RH and T were within acceptable limits, there were great fluctuations of both values throughout the year. Seasonal changes were quite noticeable. From the tables, the fluctuations were calculated on a daily basis. From the table below a drastic change in T of 8.8ºC (within 6 hrs) and a change of RH of 25.4% (within 11 hrs), both on 5th February 2009 can be noted. On the 13th October 2009 there was a drastic 54.9% RH change in just 16 hours.

Comparing the climate of both chapels
Both sanctuaries were simultaneously monitored for a period of three weeks.

Old restoration treatments
The crucifix underwent at least two major interventions. The first one was that of painting the cross and Christ’s figure in very dark colour. The second intervention was the removal of such dark paint. This intervention was drastically carried out by literally stripping off the paint and possibly also removing any underlying layers. The latter can be assumed in areas where the wooden support is exposed.

State of conservation
The wooden support of the crucifix is in a very good condition. Most of the deterioration seems to be the result of the two major interventions previously mentioned. Apart from being covered with superficial dust, the artefact suffers from the following: Cross – Possible overpaint, insect degradation, losses and detachments of preparation/paint layers, Figures of Christ – Possible overpaint areas of blistering of the dark paint especially at the back, insect degradation, paint losses resulting to exposed surfaces of the wood.

Chapel at St Luke’s Hospital
Chapel at Mater Dei Hospital
The crucifix was displayed in a passive microclimate. Light levels were low due to the limited number and size of the chapel windows.

Conclusions
The crucifix’s support and preparation/paint layers seem to be in stable condition, yet, will the continuous rapid T and RH fluctuations affect the artefact in the future? The external and surface temperatures need to be monitored to evaluate any possibility of condensation. Further tests, perhaps carried out directly on the artefact, should take place in order to try and uncover any changes which may not be visible to the naked eye. Will by time the Air Handling Unit be a benefit or a detriment to the artefact?

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