

The Kyrenia Ship Conservation Project

Kyrenia Ship Collection: Conservation Progress Report

November 2016



Photographs courtesy of Veronica Ford and Cassy Cutulle, 2016

Cassy Cutulle

MA, MSc University College London
Chief Objects Conservator
Kyrenia Ship Conservation Project

Veronica Ford

MA, MSc University College London
Assistant Objects Conservator
Kyrenia Ship Conservation Project

Contents

- **General Introduction**
- **November 2016: Conservation Tasks in Progress**
 - **Preventive Conservation Tasks**
 - **Environmental Monitoring at Conservation Laboratory**
 - **Environmental Monitoring at Kyrenia Castle**
 - **Remedial Conservation Tasks**
 - **Restoration Activities**
- **December 2016: Projected Work Plan and Current Standing**
- **November 2016 Budget Information**

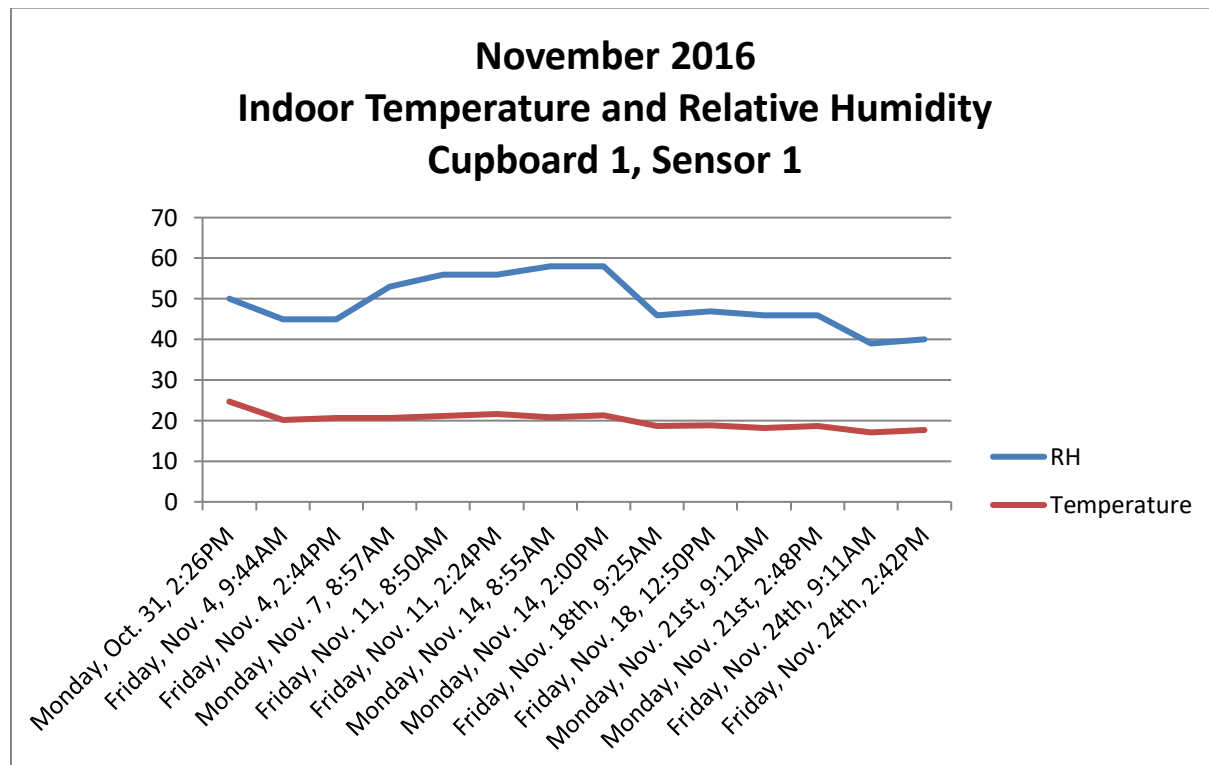
General Introduction

Throughout November, conservators Cassy and Veronica have continued to monitor both the relative humidity and temperature within the Conservation Laboratory to gain an understanding of the fluctuations occurring, which is especially important during seasonal shifts. The Tiny Tag devices installed in the Ship Gallery last month are still continuously logging the relative humidity and temperature in that space every 7 minutes until December 12th, 2016 when the data will be extracted and assessed and a new monitoring cycle will be initiated. Additional Tiny Tag data loggers are expected to arrive in late-November and the conservators are planning to install these in the Kyrenia Ship Storeroom and Shipwreck Museum Gallery in early December. Good progress is being made on the restoration of the first ceramic objects. Thus far, 7 have been completed and four more are in progress.

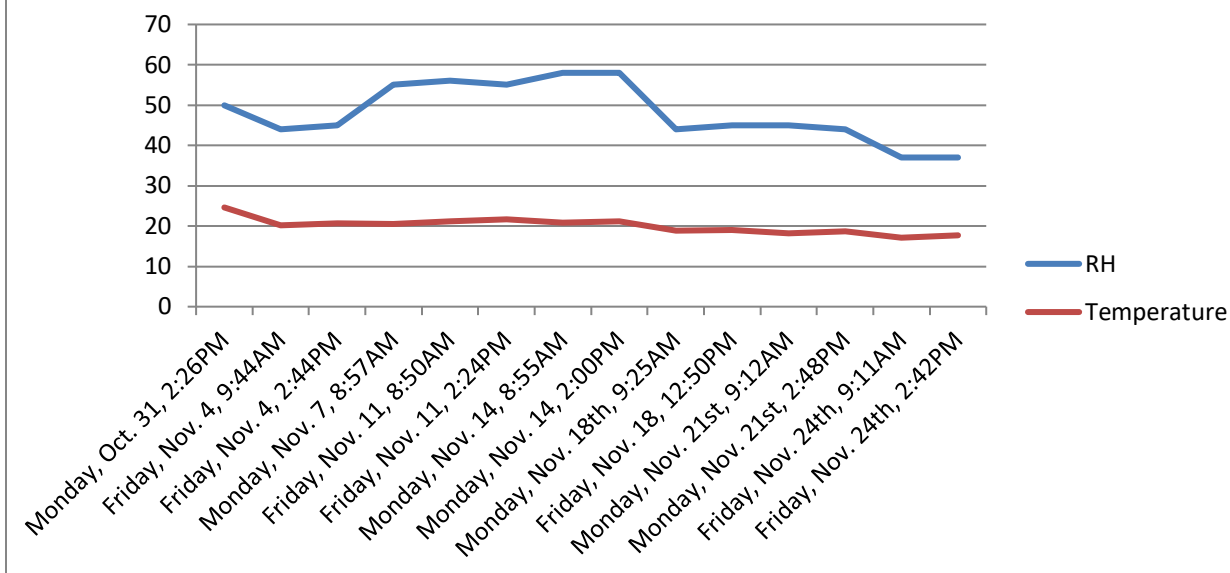
November 2016: Conservation Tasks in Progress

Preventive Conservation Tasks

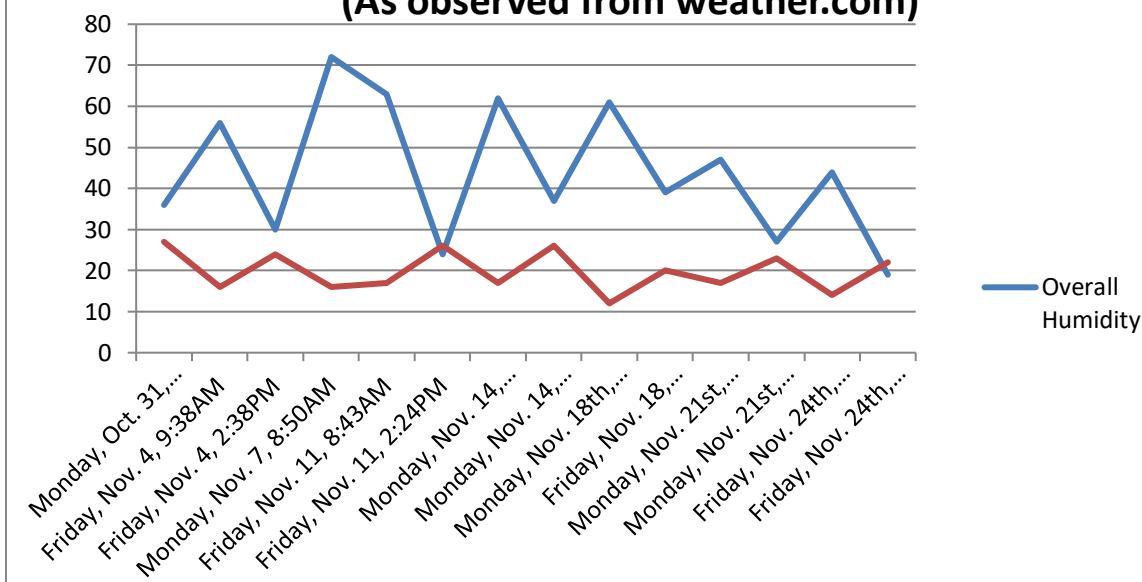
In November, Cassy and Veronica continued to log and monitor and the relative humidity and temperature at the Conservation Laboratory in Nicosia. Data from the monitors placed within the object cupboards was recorded, as well as data for the outdoor conditions, which was retrieved from “Weather.com”. The same recording schedule was utilized as previously: logging of relative humidity and temperature took place four times a week—two recordings on Monday and Friday mornings and afternoons at approximately 9:00am and 2:00pm. There are some noticeable gaps in recording, which were due to trips to Kyrenia Castle and other work commitments outside the laboratory.



November 2016 Indoor Temperature and Relative Humidity Cupboard 2, Sensor 2



November 2016 Outdoor Temperature and Overall Humidity (As observed from weather.com)



Figs. 1-3: Line graphs displaying the relative humidity and temperature within the two object cupboards housed in the Conservation Laboratory in Nicosia (top, middle) and the temperature and overall humidity recorded outdoors as per weather.com (bottom) (Graphs courtesy of Cassy Cutulle 2016).

The graphs above demonstrate the types of fluctuations to be expected during seasonal shifts. As winter approaches, the outdoor temperature has decreased to a lower daily average with some warmer days still occurring. Corresponding to this, the outdoor relative humidity has generally increased during the morning hours when a cooler temperature prevails and decreased in the afternoon as the temperature increases. This demonstrates the inversely proportional relationship between temperature and relative humidity.

These changes in outdoor temperature and relative humidity have affected the indoor relative humidity and temperature within the object cupboards, but to a much lesser degree due to the buffering capacities of the Conservation Laboratory building, the metal cupboards, polyethylene boxes and acid free tissue paper which contain the objects. Throughout November, the temperature within both object cupboards has remained stable at a lower daily average of $20^{\circ}\pm 5^{\circ}\text{C}$, while the average daily relative humidity has steadily increased throughout the month from within range of 43-58%. Although the relative humidity within the object cupboards has increased at various times throughout the month, the gradual nature of the increase is not concerning and is only a result of the corresponding weather shifts outdoors. Additionally, the placement of silica gel packets in the metal objects cupboards ensures that increased relative humidity will not negatively affect the metal objects stored at the Conservation Laboratory.

After last month's application of pesticide within the Conservation Laboratory, a visible decrease in insects and pests has been noted. On October 31st, the conservators have placed new sticky blunder traps within the Laboratory, in the same areas as the previous traps. These traps will be checked in mid-December for a detailed understanding of any insects/pests still within the Laboratory.

Remedial Conservation Tasks

During November, restoration of the ceramics stored at the Conservation Laboratory in Nicosia has been the focus of remedial conservation activities. P8, P84, P98 and P107, the four objects which were initially chosen at the start of restoration in October, have now been restored.



Figs 4-5: P107 (left) and P8 (right) after restoration and at the end of the treatment process (Photographs courtesy of Veronica Ford and Cassy Cutulle 2016).

In October, the conservators found that restoration was particularly time consuming, therefore it was decided that the focus of efforts in November should initially be on those ceramics classified as “medium-level” restoration jobs, as the vast majority of these are intended for display in the Kyrenia Castle Shipwreck Museum Gallery. Therefore, this month, Cassy is currently working on P27 and P96, while Veronica is working on P21 and P26 after having completed restoration work on P1, P104 and P109. Once the “medium-level” restorations have been completed to an acceptable degree, the conservators will work on the lower priority “low-level” restorations.

It has become clear, during the process of treatment, that some changes to the restoration methodology are necessary in order to ensure good results. Firstly, in the case of several of the ceramics suggested for “medium-level” restoration, dental wax will not be sufficient for the creation of the restored areas. Due to the shape of the area requiring filling an alternative supporting material such as modelling clay or silicon will be required. Secondly, it has been found that detachable fills (created separate to the ceramic by using a barrier of plastic wrap and adhered in place – see figures 6-7) are generally preferable to *in-situ* fills (where plaster is cast directly into the void in the ceramic). Detachable fills have the advantage that they are easier to remove and less likely to result in damage to the object when the fills are sanded, as the fill does not need to be worked in close proximity to the ceramic. Thirdly, the use of dry pigments mixed into the plaster has continued to produce inconsistent results, sometimes resulting in a “marbling” effect. Modifications to the plaster and dry pigment mixing technique have been found to mitigate against this in some cases. These changes included: the use of a sieve to ensure there are no hidden larger particles of plaster and pigment before casting; increased accuracy in measuring plaster, water and dry pigment quantities; and initially mixing a larger quantity of plaster and dry pigments, to ensure that all areas to be filled may be completed using a single mixture of plaster and dry pigments. While a more consistent color has been achieved in the case of some objects, for others it has proved necessary to in-paint the fills with acrylic paint to produce a uniform finish. With this method, an acrylic basecoat with several layers of acrylic paint and an oil-based matte varnish are necessary to produce a detachable fill that is similar in appearance to ceramic. There is little aesthetic difference between those objects with restorations colored by dry pigments and those colored by acrylics.



Figs 6-7: P1 (left) and P109 (right) prior to the pouring of plaster for detachable fills. Dental wax is used to mold the shape of the fill and cling film used to separate the plaster fill and the ceramic, so the fill may be adhered back in to the ceramic at a later stage (Photographs courtesy of Veronica Ford 2016).

As the conservators have gained additional experience working with the objects and materials, the process of restoration has somewhat sped up and during November. Objects P1, P8, P84, P98, P104,

P107 and P109 have been fully restored. As a result, including those objects restored in October, a total of 7 ceramics have been restored to date.



Figs 8-9: P1 (left) and P98 (right) after restoration and at the end of the treatment process (Photographs courtesy of Veronica Ford and Cassy Cutulle 2016).

December 2016: Projected Work Plan

In December, the conservators will continue to focus on the treatment of those ceramics requiring “medium-level” restoration. On December 12th, data from data loggers in the Ship Gallery at Kyrenia Castle monitoring relative humidity and temperature, will be downloaded by the conservators. Additional preventive tasks and supply ordering will proceed as appropriate. Preparations for the laboratory’s closure in the second half of December will also be carried out, when the conservators will be away from Cyprus on leave until mid-January 2017.

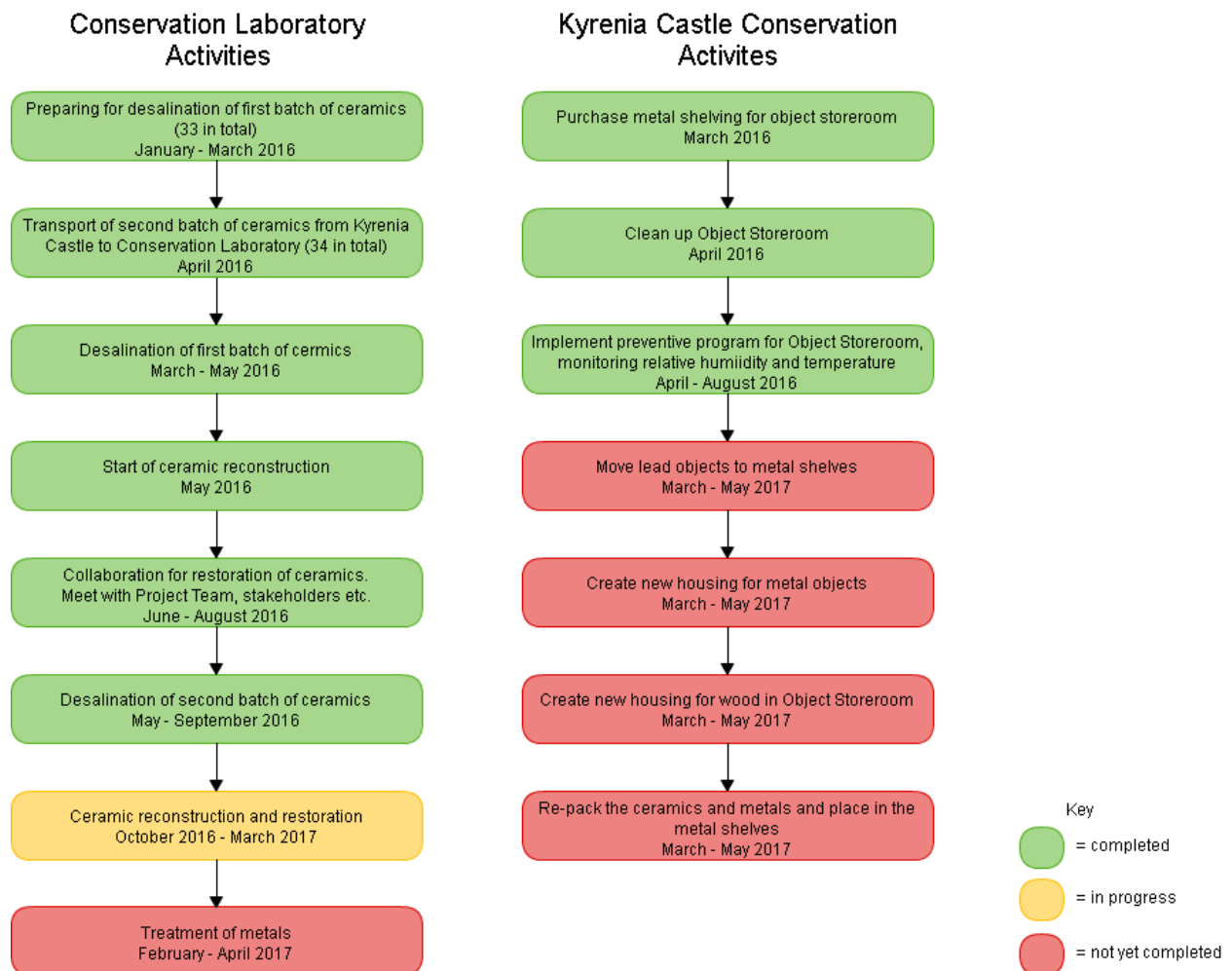


Fig.10: Flow chart displaying the activities to be undertaken by the conservators for this Project and the progress made thus far (Flow chart courtesy of Veronica Ford, 2016).