
The Kyrenia Ship Conservation Project

Kyrenia Ship Collection:

Conservation Progress Report

December 2016





Photographs courtesy of Veronica Ford and Cassy Cutulle, 2016

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General Introduction

Throughout December, conservators Cassy and Veronica have continued to restore the ceramic objects stored in the Conservation Laboratory in Nicosia. In particular, their efforts have focused on restoring those ceramics that are categorized as “medium-level” conservation jobs. Additionally, in preparation for the larger-scale restoration tasks ahead, the conservators have researched and ordered supplies that will allow for better molding and casting of plaster, particularly for larger areas of loss.

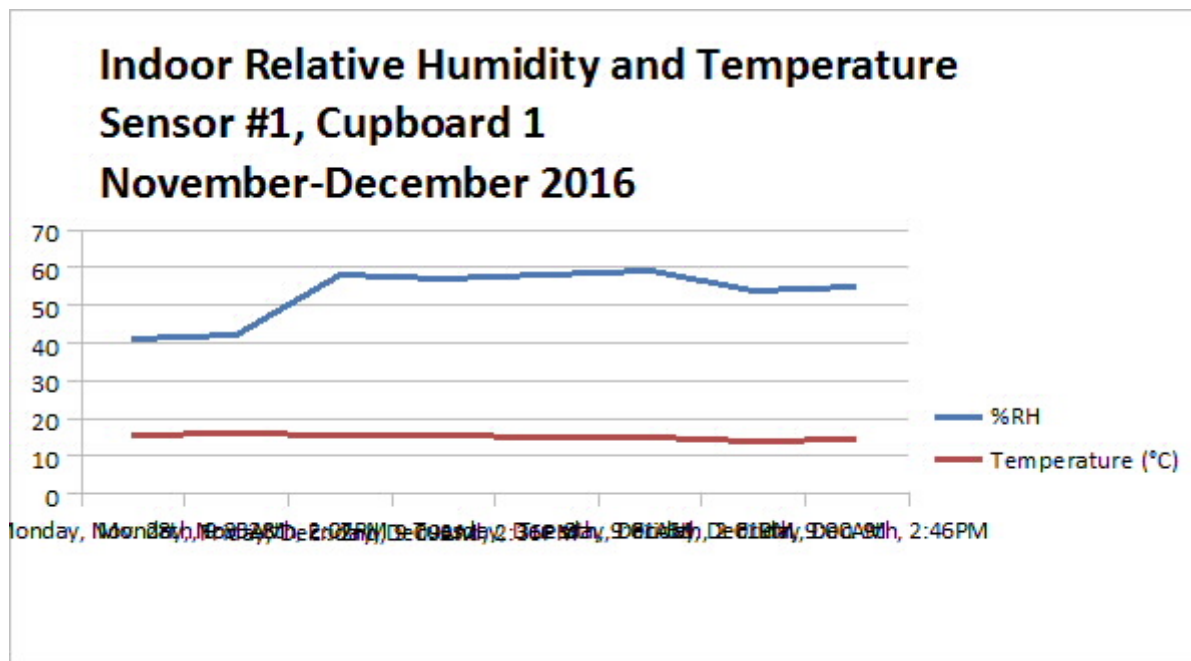
On December 12th, the data from the two Tiny Tag environmental loggers in the Ship Gallery was extracted and analyzed. This information is particularly important as it shows the fluctuations in relative humidity and temperature at seven minute intervals over the span of two months, providing a detailed view of the types of changes occurring in the Ship Gallery. Environmental monitoring at the Conservation Laboratory has taken place as usual, however, this month’s temperature and relative humidity graphs will cover a shorter time period due to the conservators starting their holiday leave, which will begin on December 15th.

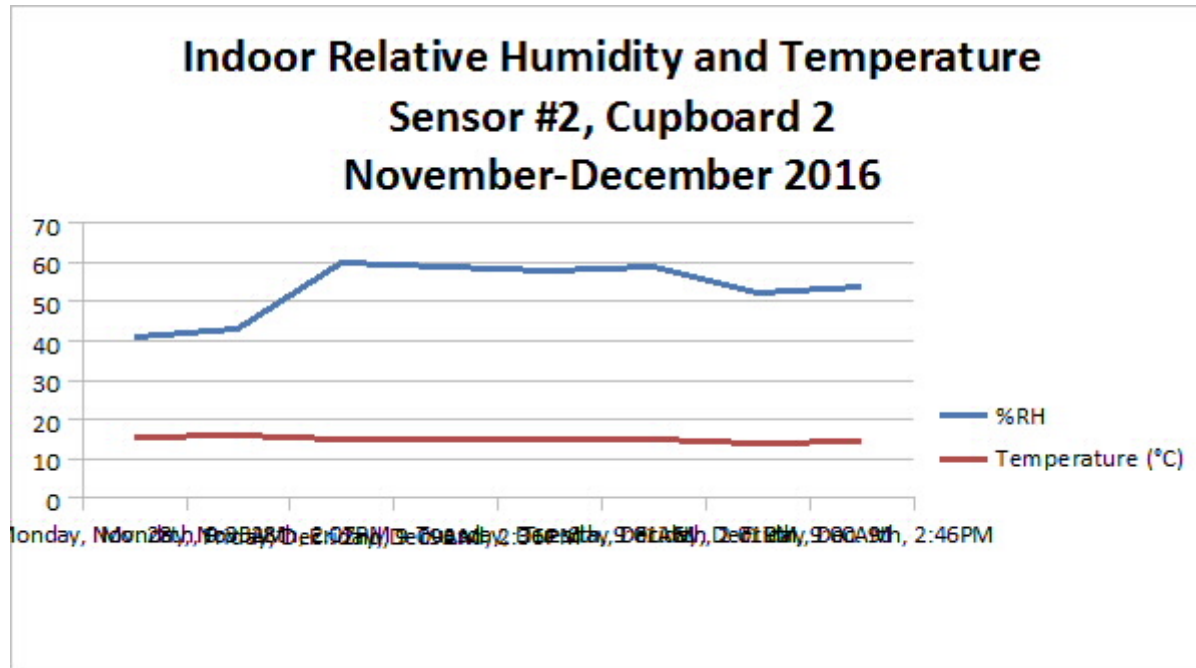
December 2016: Conservation Tasks in Progress

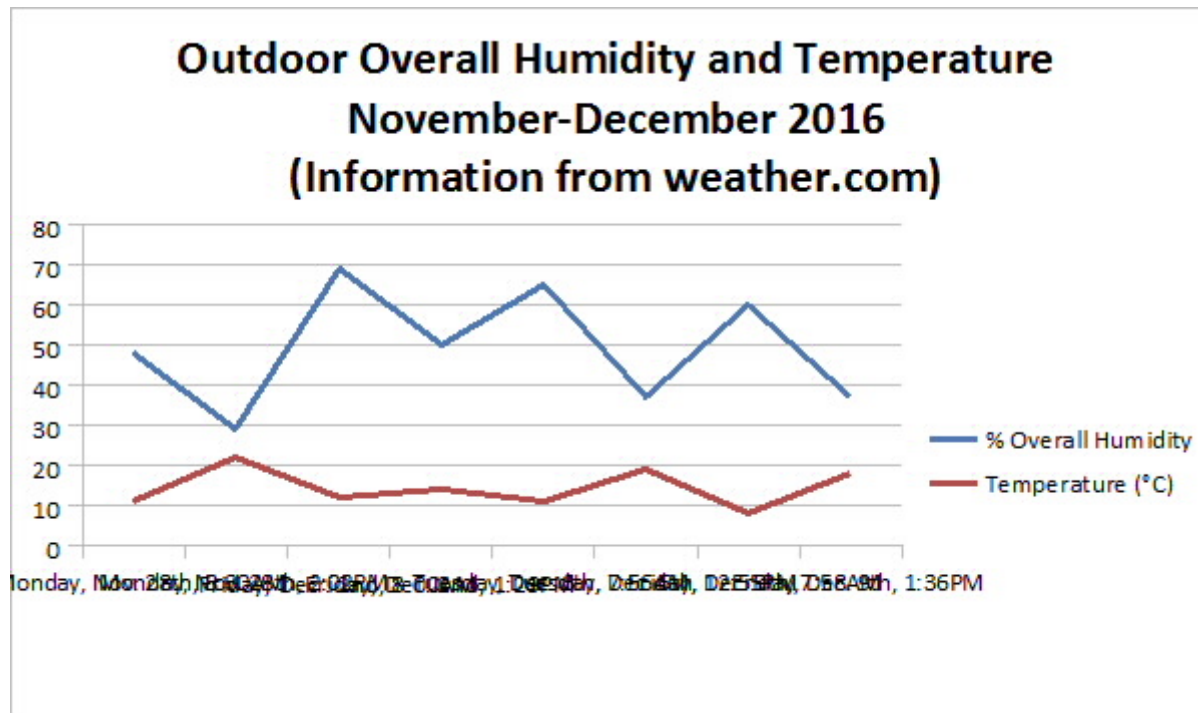
Preventive Conservation Tasks

In December, 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. The brevity of the recording period is due to the start of the conservators' holiday leave, which begins on December 15th.





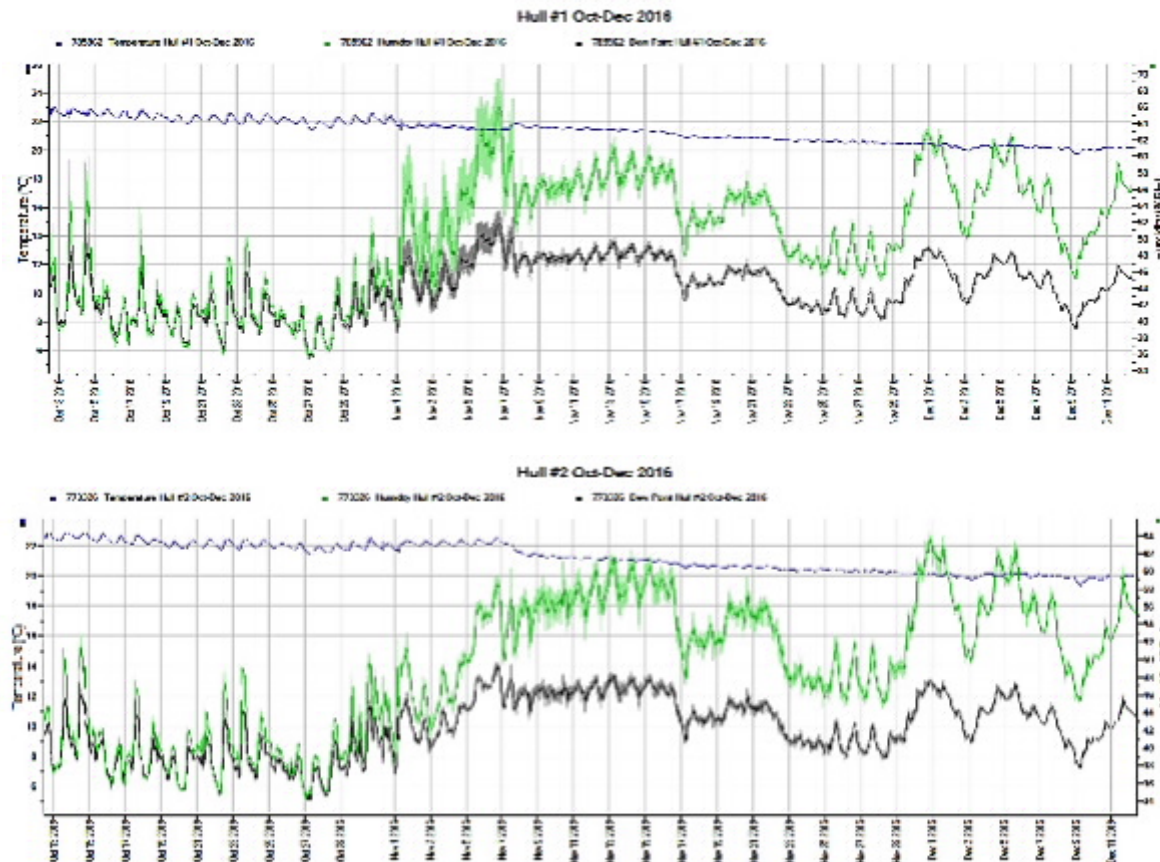


Figs. 1-3: Line graphs displaying the relative humidity and temperature within the two object cupboards housed in the Conservation Laboratory in Nicosia (top, middle) and the temperature and overall humidity recorded outdoors as per weather.com (bottom) (Graphs courtesy of Cassy Cutulle 2016).

In the “Outdoor” graph above, a lower average temperature and wild daily overall humidity fluctuations are both indicative of the winter season. In addition to cooler weather—and a rise in relative humidity during these times—around the end of November and into early December, Nicosia received several days of rain, influencing the overall humidity in this graph, where a maximum of 70% can be seen. The lower overall humidity percentages seen are in correspondence with several peaks in temperature during the day, which provide a drier climate.

The indoor relative humidity and temperature graphs for cupboards 1 and 2 above display a more buffered environment, however, the approximately 20% spike in relative humidity seen between November 28th and December 2nd as a result of the rain, is concerning. Since this is not a slow, gradual increase and occurred over a short amount of time, it could be considered particularly detrimental to certain types of objects

such as metals. However, as previously mentioned, we have adequately prepared the objects for these fluctuations by packaging them in boxes with appropriate materials such as silica gel—which was last refreshed on December 14th—which will help maintain a level relative humidity. Lastly, the indoor graphs display a stable, lower temperature with an average around 15°C, which is to be expected at this time of the year.



Figs. 4-5: Line graphs displaying the relative humidity (green), temperature (blue) and dew point (black) for the two Tiny Tag environmental data loggers placed in the Ship Gallery. Shown above is the data recorded by the loggers, which recorded every seven minutes between October 12th and December 12th, 2016

The second set of graphs above [Figs. 4-5 Above] display the data recently extracted from the two Tiny Tag environmental loggers. The loggers were placed at two different points in the Ship Gallery under the Hull to provide information on the types of fluctuations occurring and also affecting the Ship. The loggers recorded data every seven minutes from October 12th to December 12th, 2016. This data is particularly important as it reflects what the Hull has been directly exposed to over this time period during the seasonal shift. As expected, the temperature—denoted as the blue-colored line—steadily decreases from October to December as winter-time approaches. The daily spikes and dips in the temperature can be attributed to both regular outdoor daytime/nighttime fluctuations and also the air conditioning in the space (if it is turned on in the daytime/off at night). The relative humidity for both monitors fluctuates wildly, but is also still inversely proportionate to the temperature (relative humidity rising as

temperature drops). The air conditioning can also be influencing the relative humidity in this way. At any rate, the relative humidity fluctuations are concerning and could be potentially damaging for the wood of the Hull in the long-term. Plans to redevelop the Shipwreck Gallery should consider this important detail and hopefully aid the Hull in the future.

On December 12th, the conservators met with Owen Gander at Kyrenia Castle to discuss and explain the use of the Tiny Tag environmental monitors. At the same time, four additional Tiny Tag monitors were placed at Kyrenia Castle – two in the Kyrenia Ship Storeroom and two in the Shipwreck Museum Gallery. The locations of the new Tiny Tag devices were chosen to allow the monitoring of areas that contain objects that are particularly vulnerable to environmental fluctuations. In the Kyrenia Ship Storeroom, one logger was placed in the vicinity of the detached pieces of Hull wood and one in a metal cabinet which will later rehouse some of the smaller metal objects. In the Shipwreck Museum Gallery, one logger was placed near the lead curse tablet inside the display case and another near the lead rigging rings and smaller copper alloy objects again within the display case. These loggers will also allow the conservators to determine how seasonal and daily variations in the environment will impact the objects.



Figs. 6-7: The four new Tiny Tag monitors before being placed in the Kyrenia Ship Storeroom and Shipwreck Museum Gallery at Kyrenia castle (left) and the location of one of the Tiny Tag devices near the lead rigging rings in the Shipwreck Museum Gallery (right) (photographs courtesy of Cassy Cutulle, 2016).



Fig. 8: Owen Gander and Cassy Cutulle placing one of the Tiny Tag data loggers in the display case containing the lead curse tablet in the Shipwreck Museum Gallery, Kyrenia Castle (photograph courtesy of Veronica Ford, 2016).

After downloading the first lot of data from the two loggers in the Ship Gallery, which logged from October 12th to December 12th, all six monitors were reconfigured to take readings every 7 minutes, allowing the devices to record until reaching full capacity on March 1st, 2017. In addition, all six Tiny Tag loggers were placed on a plinth and labels in Turkish and English were added to explain that the devices were monitoring the environment and should not be moved, touched or thrown away. The conservators plan to provide additional training for Owen in the New Year so that he may download the environmental data from the loggers in the long-term.



Fig. 9: Owen Gander and Cassy Cutulle setting up a new Tiny Tag data logger (photograph courtesy of Veronica Ford, 2016)

On the 6th of December, Robin Piercy—member of the Kyrenia Ship Project Team—visited the Conservation Laboratory in north Nicosia to observe some of the restoration activities being undertaken. This was a good opportunity for the conservators to demonstrate and explain the treatment process while also receiving some feedback about the progress so far. Additionally, the conservators enjoyed a meeting with Francis Talbot Vassiliadou on the 13th of December, who was the initial conservator for the Kyrenia Ship Project during the Ship's excavation. The conservators were able to learn more about the types of materials she used in the late-1960s, early 1970s and the approaches undertaken.





Figs. 12-13: Veronica Ford (left) and Cassy Cutulle (right) showing their work to Robin Piercy (Kyrenia Ship Project Team) (photographs courtesy of Cassy Cutulle and Veronica Ford, 2016).

Remedial Conservation Tasks

Throughout December, the restoration of the ceramic objects has continued, with the conservators continuing work on objects that were started in November. Cassy is aiming to finish objects P27 and P96 by mid-December, while Veronica is working on P21, having recently completed P26 in mid-December. As work continues forward, the restoration work has increased in complexity, as can be seen in Veronica's recently constructed detachable fill [Figs.10-11 below]. This object required a more complex approach than before, due to the size of the loss for restoration (around 40% of the object) and orientation of the area to be filled. It was discovered by Veronica that the best approach was to create two wax molds, pouring the plaster between the two. However, this necessitated the joining of multiple sheets of dental wax, which was found to be time consuming.





Figs. 10-11: P26 with the mold for the large fill in place (left) and P26 after treatment (right) (photographs courtesy of Veronica Ford, 2016).

The restoration jobs that remain for the future are ones that are more complex, with larger areas of loss and also original sherds with no joining edges to the ceramic itself. In situations such as these, it will be difficult to produce molds from wax sheets. Due to this, the conservators have researched and ordered materials such as silicone rubber and plasticine, which will allow the conservators to produce molds for large areas of loss and also to incorporate loose, original sherds into the mold form.

January 2017: Projected Work Plan

The conservators will be away on annual leave during the first part of January, with Veronica returning to Cyprus on January 10th and Cassy returning on January 18th. During this break, the conservators will take the opportunity to collect additional supplies, including plasticine and silicone rubber which will allow the more complex restoration activities to progress through to February. During the first part of the new year, the conservators will also finalize their treatment plans for the metal objects at the conservation lab in north Nicosia, along with making additional arrangements for the rehousing of the wooden objects at Kyrenia Castle.

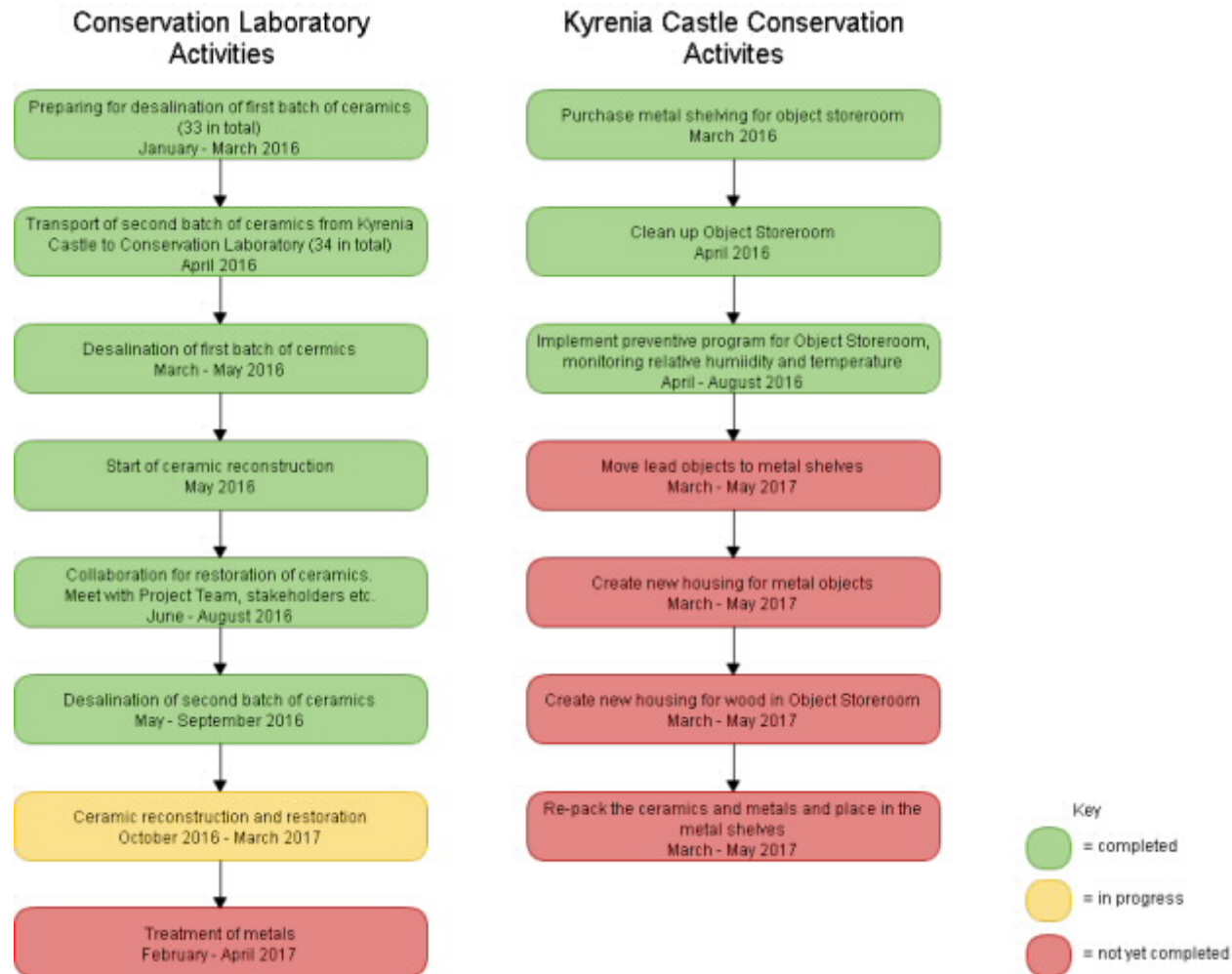


Fig.14: Flow chart displaying the activities to be undertaken by the conservators for this Project and the progress made thus far (Flow chart courtesy of Veronica Ford, 2016).

