

The Kyrenia Ship Conservation Project

Kyrenia Ship Collection: Conservation Progress Report

February 2016



Photograph courtesy of Muge Sevketoglu, 2016.

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General Introduction

During the course of January and February the conservators of the Kyrenia Ship Conservation Project Team have focused conservation efforts on ensuring that the first batch of ceramics are prepared for desalination—an activity which will remove damaging salts from within the structure of the ceramic. This has involved practical work such as cleaning the ceramic join edges to remove all remnants of past adhesive left over from previous reconstructions, as well as the weighing and counting of ceramic sherds. Other preparations for desalination have included consultation with Asaf Oron—a conservator who has been involved with the Kyrenia Ship Project in the past—about the best approach to desalination treatment and the necessary equipment. Throughout this period, the work carried out has been fully documented and recorded through photography and the completion of treatment records.



Fig. 1: Cassy Cutulle, Chief Objects Conservator, removing adhesive from one of the ceramic joins. Photograph courtesy of Veronica Ford, 2016.

In addition to the practical conservation work carried out, throughout February the conservators also worked to establish a preventive conservation program to monitor the environmental conditions of the objects whilst stored in the Conservation Laboratory in Nicosia. This program will focus on monitoring and recording the temperature and relative humidity within the storage areas of the Conservation Laboratory, as well as observing insect populations through the use of pest traps.

In early February, Veronica Ford—the new Assistant Conservator—arrived and commenced work on the Kyrenia Ship Collection. Veronica started work by cleaning the ceramic join edges and in so doing, has been able to become acquainted with the Collection. She is making great progress and is looking forward to the future conservation tasks which await.



Fig. 2: Veronica Ford, the newly hired Assistant Objects Conservator, examining some of the ceramic fragments. Photograph courtesy of Cassy Cutulle, 2016.

February 2016: Conservation Tasks in Progress

As mentioned briefly above, one of the primary tasks undertaken in February was the cleaning of join edges for the ceramic objects currently stored within the Conservation Laboratory in Nicosia. In particular, this cleaning was aimed at the removal of aged adhesive on the joining surfaces of the ceramics, which were previously reconstructed and restored in the 1970s. The adhesive is most likely a type known as, “cellulose nitrate”—an adhesive used by conservators both in the past and present, but especially within the past 70 years.

To remove this adhesive from the joining edges, a solution of acetone and distilled water were mixed in an 80:20 milliliter ratio. The acetone in this mixture made soluble the aged adhesive, while the distilled water slowed the evaporation rate, which allowed for a longer working time and prevented the acetone from drying out the ceramic fabric. This solution was applied to the joining edge surfaces using a pipette, and small tools such as metal scalpels, brushes and toothpicks were used to carefully remove the old adhesive. Some ceramics contained an excess of aged adhesive which had been exposed to an environment with a fluctuating relative humidity and temperature, causing the adhesive to expand and contract, pulling the ceramic fabric. In these cases, minimal material loss was noted after the removal of the adhesive—an inevitable outcome as a result of the conditions the ceramics were previously stored in.

This cleaning was completed at the end of February and throughout this process and even before, preparations for the desalination of the ceramics were undertaken. Desalination is aimed at the removal of soluble salts from within the ceramic matrix. Soluble salts are particularly concerning because they can crystallize within the pores of the ceramic, exerting pressure on the ceramic and causing subsequent damage. Desalination is done through the soaking of the ceramic in deionized water, which leaches the soluble salts out from within the ceramic fabric. To prepare for this, the conservators have consulted with conservator Asaf Oron and have conducted research, purchased the necessary supplies and have proceeded to standardize a treatment approach to the desalination of the ceramics. Throughout this,

Veronica Ford's background experience in desalination has been particularly helpful, as she has conducted extensive research on this topic for her MSc dissertation at University College London.



Fig. 3: Photograph of Cassy Cutulle counting sherds of ceramics and taking photographs before treatment. Counting the ceramic sherds allows the conservators to maintain organization throughout treatment. Photographs before desalination aid the conservators in tracking any differences in the appearance of the ceramics before and after treatment. Photograph courtesy of Muge Sevketoglu, 2016.



Fig. 4: Photograph of Veronica Ford removing the aged adhesive from a join edge of a ceramic. Photograph courtesy of Cassy Cutulle, 2016.

In addition to these preparations, the conservators have also been working to institute a program of preventive conservation within the Conservation Laboratory. Preventive conservation can include a range of activities aimed at monitoring and altering the environment to prevent damage to a collection. By the end of February, Cassy and Veronica have successfully installed 7 sticky blunder pest traps to monitor the types of pests within the Conservation Laboratory. Through analyzing the pests caught on these traps, the conservators can better understand if there are any pests present which may cause damage to the Collection. Fortunately, there are no organic objects currently stored in the Conservation Laboratory, which are particularly appealing to pests.

Two electronic “Meade” thermohygrometers were also installed in the Conservation Laboratory. Thermohygrometers are devices which display the temperature and relative humidity for a given area. The thermohygrometers utilized for the Conservation Laboratory include a sensor which transmits the temperature and relative humidity over 45-second intervals. Since these devices do not record the data, Cassy and Veronica will record this information twice weekly on Monday and Friday in both the morning and afternoon to get an understanding of the environment within the object storage cupboards on a daily, weekly, and even seasonal basis. Additionally, the outdoor temperature will also be recorded to compare to the indoor data. This information can be graphed to provide information on the fluctuations occurring within the object storage areas, providing the conservators with an understanding of whether additional changes need to be made to buffer out fluctuations which may cause damage to the artifacts.



Figs. 5-6: Photographs of the electronic thermohygrometer used to track the temperature and relative humidity in the Conservation Laboratory in Nicosia. The left photograph displays a picture of the electronic temperature and relative humidity display while the right shows the sensor in the object storage cupboard. Photographs courtesy of Cassy Cutulle, 2016.



Fig. 7: Photograph of a sticky blunder trap that was placed within the fireplace of the Conservation Laboratory. This trap will allow the conservators to understand which pests are present within the Laboratory. Photographs courtesy of Cassy Cutulle, 2016.

Throughout all of this work, both photographic and written documentation were completed by the conservators. Comprehensive treatment records detailing the specific treatment undertaken, tools and solvents used were completed for each object alongside photographs which track the progress of the treatment for each object. In preparation for the desalination of the ceramics, sherd counts, weights and photographs were taken before treatment so as to record any changes that may occur to the ceramics as a result of the treatment. This is a critical portion of the Project as it will be a record of what has been done to the objects.

Throughout the course of treatment, contact has been maintained with the Kyrenia Ship Conservation Project Team via Skype meetings and emails. This has aided the conservators in carrying out the tasks listed in the work plan, while informing future endeavors. Currently, the conservation progress has been slightly delayed, as the installation of the deionized water equipment has not yet occurred. This work was originally projected to take place in February, but as it currently stands, will most likely take place in March. While waiting for the equipment to be installed, the conservators will continue other conservation tasks that are scheduled, including the packaging of more Kyrenia Ship ceramic objects presently in Kyrenia Castle and possibly even treatment of the metallic objects (please see, “March 2016: Projected Work Plan” below).

March 2016: Projected Work Plan

During the course of the next month, efforts will continue to focus on the preparation of objects for desalination. Installation of the new deionizing system, “TKA Thermo Scientific Ion Exchange System DI 750”, is currently scheduled to take place in mid-March and is a pre-requisite before treatment of the ceramics can continue. Once this is installed, the most stable of the ceramics will be desalinated through full immersion in water. Consultation with Asaf Oron will continue to take place to discuss the treatment of the less stable fragments which may require consolidation with an adhesive prior to desalination to prevent loss of ceramic material. Work on the newly established preventive conservation program will continue and the conservators will prepare and plan for the transportation of the second batch of ceramics from Kyrenia to the conservation laboratory in Nicosia. For a more detailed look at the current progress and future activities, please see Figure 9 below.

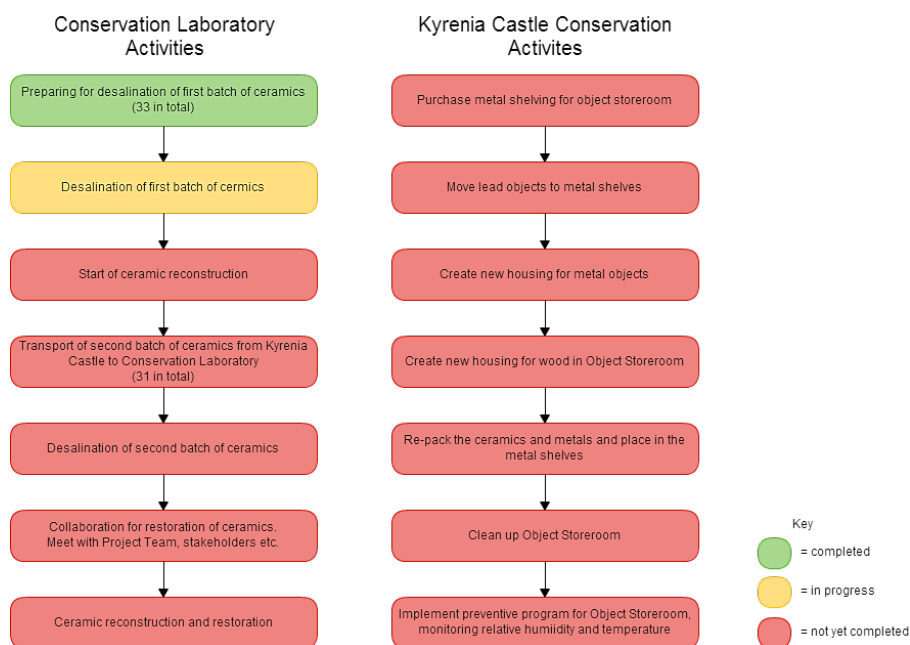


Fig. 9: Flow chart displaying the activities to be undertaken by the conservators for this Project and the progress made so far. Flow chart courtesy of Veronica Ford.