

## Civil War Memorial Tablets – Cleaning & Conservation Amherst Historical Commission      Amherst Planning Department

The following describes the scope of work involved to crate, safely transport, and professionally clean and conserve one (1) marble dedication plaque and five (5) large marble memorial tablets inscribed with the names of soldiers and sailors who participated in the Civil War on behalf of the Town of Amherst, Massachusetts.

These tablets have varying widths and the following heights and lengths:

Dedication plaque - 1' 2 ¾" tall x 6' 3 ¾" long

Our Dead in the War - 4' 8" tall x 5' 9" long

Infantry (2<sup>nd</sup>-27<sup>th</sup> Regiments.) - 4' 8" tall x 6' 3" long

Infantry (27<sup>th</sup>-52<sup>nd</sup> Regiments) - 4' 8" tall x 6' 1" long

Infantry (52<sup>nd</sup>-60<sup>th</sup> Regiments), Reserve Corps & Artillery -  
4' 8" tall x 6' 8" long

Artillery, Cavalry, Navy & Other - 4' 8" tall x 6' 6 ½" long

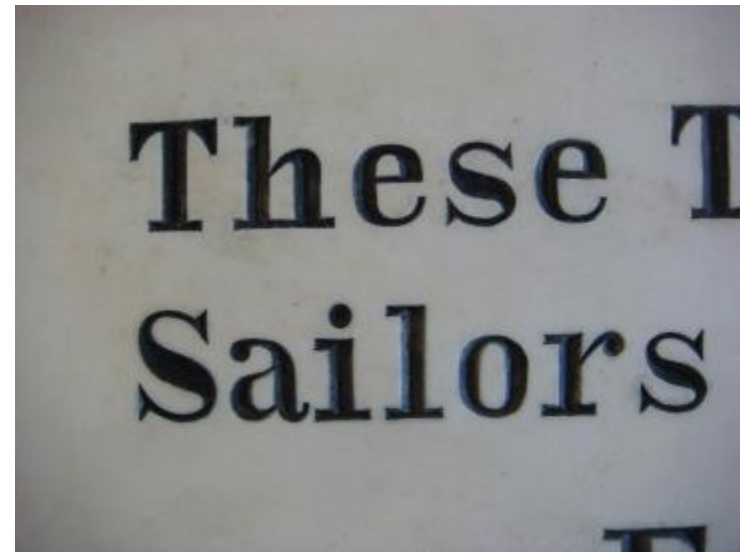
The marble tablets vary in thickness from approximately 1½" to 2".

The plaques were unpacked and removed to a dry bay in the storage facility and placed on custom made supports. Cleaning tests were initially carried out on the smaller dedication plaque. This plaque had a unique stain most likely caused by the wood fiber board storage conditions containing Lignin. This is a complex chemical compound derived from wood comprising ¼ to 1/3 of the dry mass of wood. It is acidic.

The surface of all the plaques appeared to have lost their original polish, perhaps due to environmental conditions or previous cleaning. There is a difference in the reflected light between the perimeter framed area and the rest of the plaques. The plaques may have been previously cleaned while in place with a mild acidic cleaner which did not touch (or etch) the molded framed area.



Cleaning test, before and after  
on Dedication plaque.



## Civil War Memorial Tablets – Cleaning & Conservation Amherst Historical Commission      Amherst Planning Department



Above: detail of unusual staining on Dedication Plaque. This staining is most probably due to storage conditions.



The dulling of the marble is also a natural process in the interior setting. The cooler surface of the stone will allow a thin film of condensed water to form. This water is de-ionized, or demineralized water. This water has no mineral ions in it and thus reacts with the ions in the marble surface causing a slow dulling effect. Thus, without re-polishing (which we do not recommend), the framed or protected area of the surface may never quite appear to have the same surface finish as the main area of the tablet.

Additionally, some areas of the large plaques had evidence of aggressive cleaning in the past using an acid-based product. Areas of the surface were open grained compared to most of the surfaces. This is most noticeable on the Artillery, Cavalry, Navy and Other plaque which also had a heavy residue of a shellac type substance.

While all the cleaners tested had some success, it was decided to clean the plaques with applications of an environmentally friendly material.

During testing it was found that the original black lettering was relatively water soluble. Efforts to protect the lettering with a coating of clear potassium silicate prior to cleaning helped minimally.

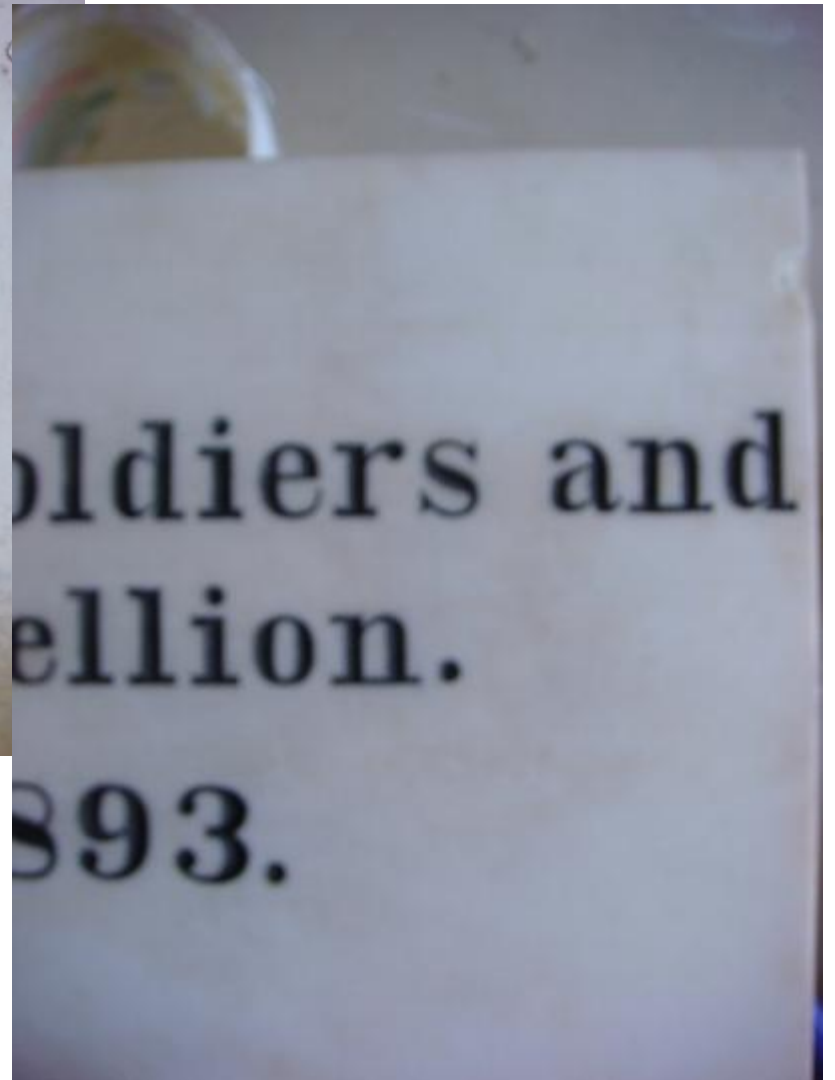
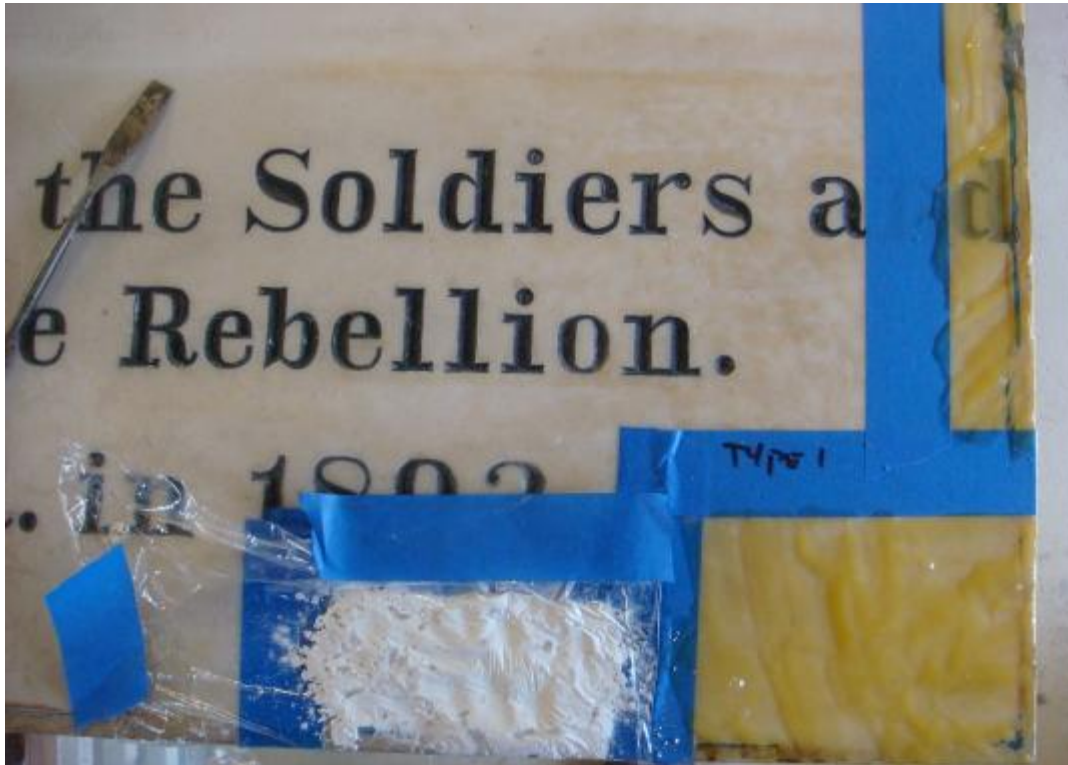
Because of the water solubility of the original black lettering, and the cleaning, all of the lettering required retouching. While the acrylic should be considerably less water soluble, the original paint can be affected by washing with water.

August 2010



Various cleaning tests on Dedication plaque

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Cleaning tests, before and after on Dedication plaque.

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



The 5 large plaques were unpacked and moved to a clean, dry storage bay on Pulpit Hill Rd and placed on custom built supports.

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Typical application of cleaner.

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Peeling the cured cleaning material. After peeling, a light sponging with water removed additional surface soiling.

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Detail of typical results of latex cleaning (inscriptions have been re-lettered on the right up to "GLA".)

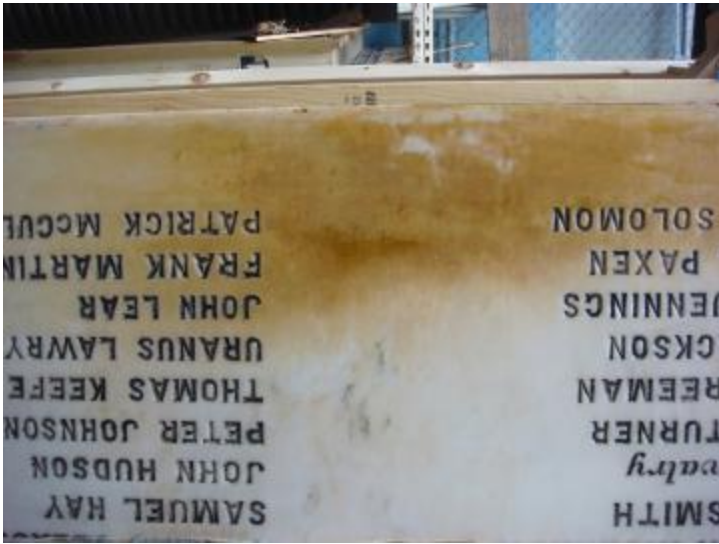
Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Re-lettering with acrylic paint.



Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Peeling the cured cleaning material with heavy soiling attached.  
This plaque was heavily stained and also had shellac residue.

# Civil War Memorial Tablets – Cleaning & Conservation

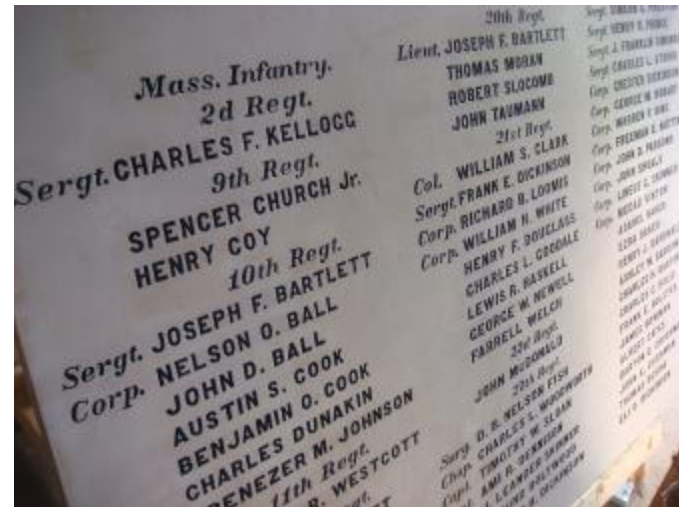
Amherst Historical Commission      Amherst Planning Department



Before cleaning

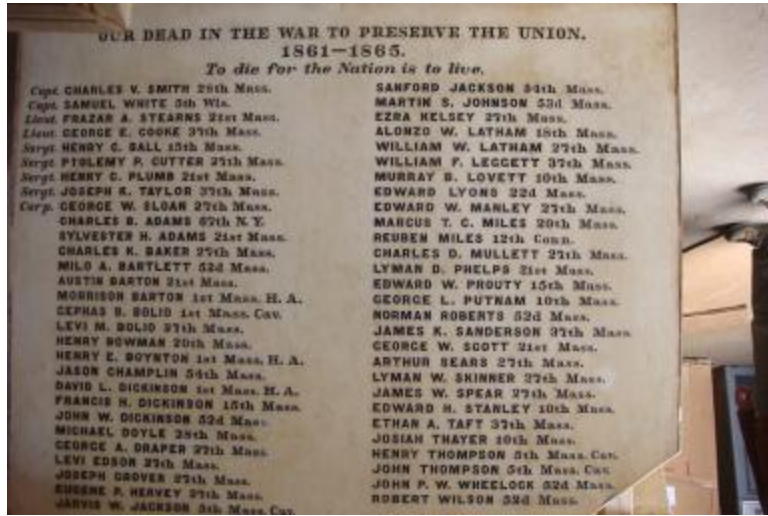


Cleaned and re-lettered



# Civil War Memorial Tablets – Cleaning & Conservation

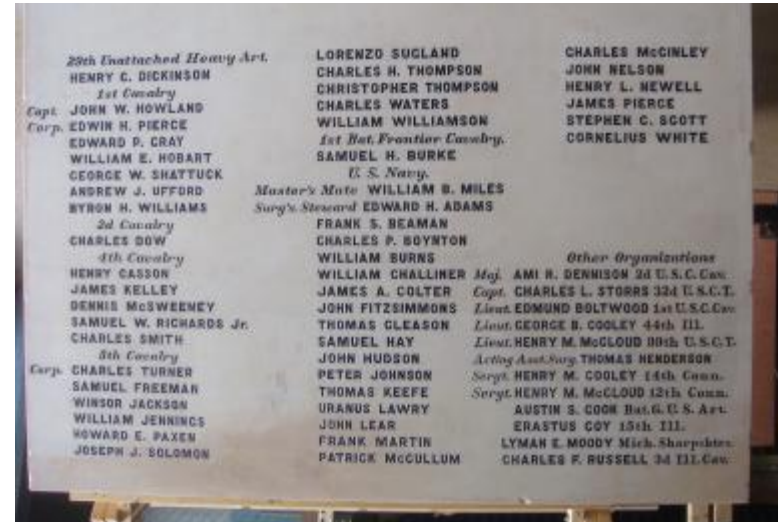
Amherst Historical Commission      Amherst Planning Department



Before cleaning



Cleaned and re-lettered



Civil War Memorial Tablets – Cleaning & Conservation  
 Amherst Historical Commission      Amherst Planning Department



Before cleaning



Cleaned and re-lettered

Civil War Memorial Tablets – Cleaning & Conservation  
Amherst Historical Commission      Amherst Planning Department



Plaques are secured in crates with foam insulation spacers.