

September 6, 2017

## **MAINTENANCE PROCEDURES/SCHEDULE**

### **MAURICE COMPRIS MURALS AT NEWTON NORTH HIGH SCHOOL**

The mural series entitled Citizenship is currently displayed at Newton North High School in two locations. The center 11'h x 20'w mural "Education," is currently on display in the Main Street 1<sup>st</sup> floor corridor on the same side of the hallway as the high school office, and the original two flanking murals "Commerce," and "Industry," are mounted outside of the school's main theatre/auditorium.

#### **CITIZENSHIP MURAL**

The "Citizenship" mural was divided/cut into four, equally wide sections (approved by Newton Public Schools), which were mounted onto 1" thick aluminum honeycombed panels, with a canvas interleaf using a 25/75% mixture of resin and wax. This adhesive will begin to soften at about 125° F and will melt at 135 - 145° F. This mural is mounted using a two part wooden "French Cleat" mounting system. There are two sets of corresponding horizontally attached cleats on both the back of the panels and the wall. The cleats are mounted onto the panels using screws through the thin aluminum sheeting into wooden internally secured strips. The wall cleats are mounted using both "Molly Bolts," secured through the drywall and wood screws mounted into the horizontal wooden framing within the raised panel specifically designed to hold this mural. The base of the mural is mounted beginning at 12' off of the floor. The four horizontal mural panels are joined and aligned using wooden tongue and groove joinery built into each panel edge. It was extremely difficult to mount these panels, which needed to be perfectly flat and carefully aligned to ensure seamless design registration, onto the provided raised plinth because the surface was not flat and was out of plane by as much as 1 ½" horizontally across its center. Because of this, mounting was extremely difficult and resulted in a minor mismatch of registration between the left panel and its partner to the right. This is not correctable without rebuilding the support plinth on the wall.

Each of the four panels were hung separately on the wall-mounted “French Cleat” system, and were not physically joined to one another. The original painting was cut into four panels to allow for safe handling, allow for transport, for installation, and most importantly for the school’s ability to have a conservator dismount them in the future because of an emergency or need for future relocation. Each panel weighs approximately 100 lbs., and requires at least 3 – 4 people to safely install or de-install these pieces. Installation required the use of a battery operated scissors lift capable of holding two people plus a mural panel. A specially designed external lift mechanism was required to safely raise each panel firmly attached to the outside of the scissors lift. Because of the wall undulations it was necessary to shim each mural in various locations between corresponding “French Cleats.”

## COMMERCE AND INDUSTRY MURALS

The “Commerce,” and “Industry” murals are also mounted using “French Cleats,” but are mounted directly to the front exterior curved (convex) brick walls of the theatre/auditorium (interior lobby) with their lower edge at about 6’ from the floor. (They were originally contracted to be mounted on flanking back interior walls of the theatre, but a decision made by school administration during installation moved them to the exterior of the theatre because of potential effect on the theatre’s acoustics, unknown issues with mounting through 2” of foam panels, mounting difficulties with a convex wall, and lighting difficulties in the future.) The wall-mounted “French Cleats” were anchored into mortar joints between bricks using lead expansion shields and lag bolts. Because of the curvature of the exterior wall, the “French Cleats” needed to be spaced away from the convexly curved brick wall in order to ensure straight flat mounting of the panels. Each of the two murals was cut into two distinct mural panels (approved in advance by Newton Public Schools) along a vertical seam to also ensure safe handling, transport, and installation. These panels were originally designed to be permanently joined using epoxy prior to lining. A decision was jointly made to cut the murals and keep the panels separate after discussions about weight, shipping, and installation issues were better understood. Because of this during treatment scope change, the panels, which had been manufactured to be permanently joined, were differently made from those of the “Citizenship” mural. The panel joints overlap by about 4 – 5”, making installation a little more difficult. The viewer’s right hand panel on each mural has a thin skin of aluminum (front and back), which overlaps a narrower inner core aluminum sleeve on each left panel. Because of the lower height of installation of these panels, the bottom outer aluminum sheet on the viewer’s lower left corner of each right-hand mural panel is more susceptible to vandalism or damage. Ideally these exposed lower corners should be more permanently secured by the

addition of a small brass “pan head” wood screw (#5, ½”) fastened through the front of the painting (through its aluminum skin, through the left panels aluminum skin, and into the wooden interior panel edge core). We would have done this work during installation, but we didn’t realize that this would be a good preventative protective action until we looked back at photographs of installation at our conservation facility prior to final report submission. Because students might mess with these two corners on each of the theatre wall mounted murals, we would highly recommend that someone from your staff add these two small screws to the panels approximately ½” in from each side and bottom of the corner. We would recommend that a small pilot hole is first drilled and then the screw added. A brass screw will be less noticeable than steel, and it will darken/tarnish with age.

## LIGHTING

If the school desires to add additional lighting to enhance viewing of these murals, we would recommend consulting with a museum exhibit lighting firm for choice of track, fixture, and number of spots. Lighting should not be kept on constantly and only used at nighttime or for special occasions or theatre events. Lighting should not be above 50 foot candles of intensity. Lighting fixtures should be incandescent, tungsten, or LED and should be sufficiently distant from the artwork to allow for even balance of lighting and to avoid heating up the paintings surfaces. It is recommended that all lighting fixtures, or windows that could shine light on any of these murals – “Citizenship, Commerce, or Industry” be ultra violet filtered to prevent cumulative deterioration of the paintings’ surfaces. **Hartmann Conservation would be glad to consult with Newton Public Schools if additional lighting is desired.**

## FUTURE MOVING OF PANELS

If the panels are moved in the future, a professional conservator MUST be involved. Although the painting sections are mounted on a rigid aluminum clad panel, the surface or corners can still easily be dented, which will require complete dismantling of the mural from its panel in order to fix the damage. Depending on the severity of the dent or damage, the affected panels might need to be replaced rather than simply being filled or fixed to re-level the front panel surface or to allow for safe rejoining to the next panel. (These panels were custom built in Minnesota and would coast approximately \$3,000.00 plus crating and shipping in 2017 dollars.)

## SUGGESTED PLAN FOR CYCLIC MAINTENANCE

The conserved painting sections/panels have a surface varnish coating of Acryloid B-72, which is soluble in xylene or acetone. The varnish coating will deteriorate or yellow very little with the passage of time. It should not be expected that these paintings will need to undergo a major conservation process or to be retreated, cleaned, relined, or inpainted for the next 50 to 100 years if they are periodically surface cleaned, assessed, and/or repaired (if needed) by a professional conservator. Any noticeable changes in how they are mounted (due to unforeseen hardware failure or wall structural failure), appearance of the surface, damage to the surface or structure, should be reported to the appropriate staff of the institution for immediate rectification by a conservator for the art, and a contractor for wall. **Under no circumstances should a non-professional, or non-highly experienced conservator, undertake removal of these panels. Failure to do this could easily result in severe damage to the artwork or personal injury.**

The mounted murals should undergo cyclic maintenance every 2 -3 years by a professional paintings conservator. The varnished, painted mural surfaces should be lightly dusted, and surface cleaned using a mild conservation-grade aqueous detergent system. Minor damages to the surface or any noticeable areas of canvas separation should be treated locally while mounted on the wall. If the surface of the mural is defaced (splashed liquid, deposits from ceiling or roof leaks, dents, spit balls, etc.) a professional conservator should be contracted with immediately to rectify the situation. Damage left untreated, will invite more damage. **Hartmann Conservation would gladly work with the school system on a mutually developed multi-year cyclic maintenance schedule contract to do this work. This will ensure that the school's choice of a conservator has a complete understanding of the panel mounting systems, painting structures, and conditions of the paintings.**