Collotype: A Resurrection

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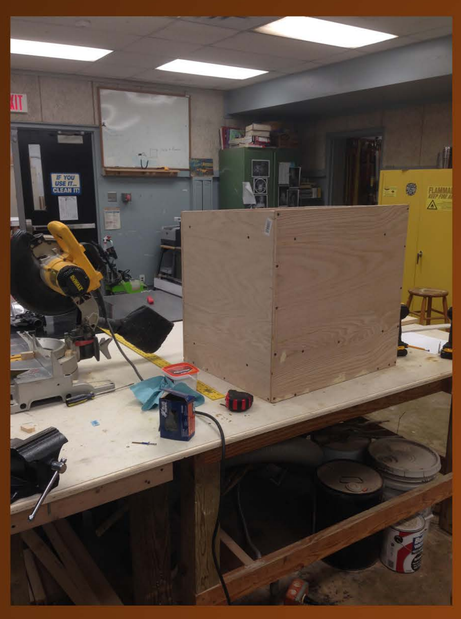
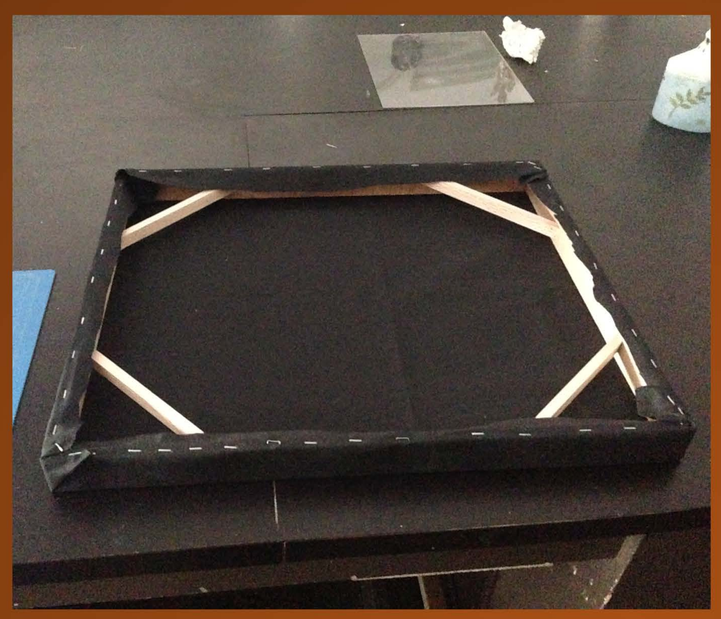
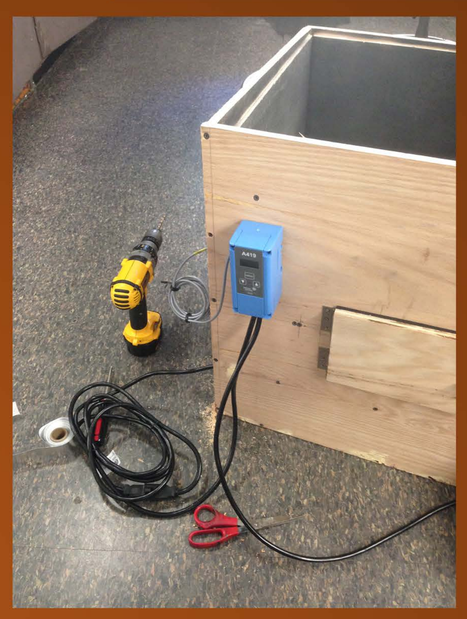
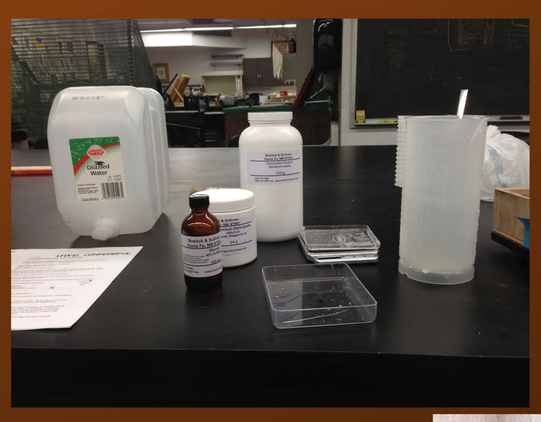
Collotype is a 19th century process that combines photography and lithography to print an image. It was once used as a means of mass production but fell out of favor as technology progressed. Most printing processes tend to enjoy a revival in popularity as an artistic medium after their commercial viability passes but collotype still is only practiced by few artists worldwide. All printing processes require specific equipment, for Collotype: an oven. A proper collotype oven has a leveling mechanism, a lid that allows moisture to escape but blocks light, and the ability to keep a stable temperature of 122 degrees Fahrenheit. These three main components are not features of a typical oven so I built one.







With guidance from “Keepers of the Light” by William Crawford, “Photo-engraving, Photo-etching, and Photo-lithography” by W.T. Wilkinson, and correspondence with Kent Rush of UTSA, I set about building the oven. In essence it is a box lined with concrete fiber board for insulation. The leveling mechanism was constructed on a 3 point system with thumb screws set into 1”x2” boards. The lid is a frame wrapped in black fabric on both sides to block light but allow the escape of moisture. The crucial, and most difficult, part of the oven is the heating element. Since my experience with electricity and heating is limited, I took to the web to research a variety of homemade ovens from kilns to powder coating ovens. A youtube video about homemade egg incubators gave me the idea to use a replacement element from a stove wired to a terrarium thermostat as my element. It works excellently.



With the oven up and running, I set about my first test. The literature differs greatly on the plate preparation. This is not unusual for print and photo techniques as there are usually many ways to achieve a desired result. Some tasks are essential like grinding the glass in order for adhesion of the gelatin to the glass. Next, I calculated up the first test of sensitizer (a mixture of dichromate and gelatin) and baked it onto the plate. It was not a total success but, also not a complete failure. On parts of the plate, the sensitizer reacted as desired in and evenly reticulated pattern. However on some edges the emulsion seemed to over cook, so to speak, and is cracking and flaking off the plate. Testing with the sensitizer will continue until a solution is found.