Abstract:

This research focused on applying powder coat paints to various metal forms in order to create a series of jewelry designs. Powder coating is a surface technique that creates colorful durable finishes on metals. This process is traditionally used on an industrial scale to coat and color large metal objects, but can easily be adapted for jewelers to create a bold finish on small metal objects. It's approachable as a medium used in the metals classroom to create unusual, durable finishes. The materials are low cost and a better alternative to the mess of liquid paints. In the process of my experimentation I applied numerous powder coats to various metal textures, learned what this medium was capable of and defined ways I could apply powder coat to my jewelry designs.

"Exploring the Many Applications of Powder Coating Techniques in Fine Art Metalwork"

In 2015, I was introduced to the many ways artists were using powder coated finishes to detail their metal designs and discussed this process with my professor, Becky McDonah. Powder coat can be applied to metals in one of two approaches, electrostatic spray deposition or heating the metals and dipping or sifting the powders onto the hot surface. Electrostatic spray deposition uses a spray gun, which applies an electrostatic charge to the powder particles, which are then attracted to the grounded metal piece. In the heat and sift process, metal is heated then coated when hot.

Once a satisfying colored layer is obtained, the painted piece is heated in an oven at 400 degrees for 20 minutes in order to permanently cure the painted surface. With SGRCA funding, I was able to purchase a powder coat oven and a palette of powder coat paints in order to conduct my experiments on copper sheet and copper wire forms. In this

"exploration" I pursued various approaches, played with color mixes and learned what I liked and disliked about powder coat as a medium.

References:

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