

Master project plan: Destruction and Construction

Máté L. Mérey

During my undergraduate studies, I had the opportunity to experiment with electroforming and set up a mini lab at home for the technology. The simultaneous constructive and destructive processes during electrolysis naturally shape the copper. Modifying various environmental factors, such as regulating current, inserting filters, or changing temperature, can act as crucial barriers in shaping the objects. Although contemporary jewelry designers also use this technology, I have only seen examples of its surface coating properties. I aim to go further and develop the method and its applications.

One of my goals is to further develop the synthesis of standalone objects in silicone or other separating molds. I have used the method to create decorative bowls, but due to their large size, there was not enough time for thorough experimentation. The precise setting of basic cases and the application of mixed techniques were lacking.

As a second goal, I see the exploration of metal alloys as a good challenge, which would be pure material experimentation. During electrolysis, only pure copper migrates between the poles, leaving any „impurities” on the positive charge. Thus, it is possible that an object made from a base alloy with a lower copper content would become spongy or eroded.

My third goal with the project is to apply the destructive and constructive processes to object creation. The technology is predominantly used in industries and art projects focused on construction, but the destruction, similar to erosion, also holds much excitement. It would require extensive experimentation to create successful, high-quality objects from this process. In this regard, I see masking, filtering, and the use of the previously mentioned alloys as promising directions.

I can mention several inspiring programs for this project, starting with the design task of my 5th semester in 2023, which would serve as the technological basis. Additionally, I would draw ideas from the ‚Malmivalu’ iron casting course in Tallinn, where speed and freshness paired with the nature of cast iron. During this two-week course, we used various mediums for casting, such as sand mixed with industrial resin, special wax, and styrofoam. Not to mention the university’s bronze casting camp, where I have participated several times, gaining significant experience in this traditional process. In the design of my 4th semester, I also worked with silicone casting, which is suitable for creating high-precision electroforms.

By applying my experience in metal casting and mold-making, I would create base forms and objects, modifying their basic shapes, textures, characters, and thus their meanings by adding or subtracting metal.