

Doctoral thesis summary  
Ewelina Kołakowska

### **3DM – Transcoding the Matrix in Artistic Graphics Using Modern 3D Printing Technologies.**

The dissertation presents broad research on traditional printmaking and 3D printing in the context of building interdisciplinary graphic forms, which involved transcoding the matrix and graphic image, resulting in the creation of innovative, autonomous plastic forms.

In the first part of the thesis, the author examines the evolutionary potential of printmaking from its beginnings in Europe and Poland, when the medium began to be used as an independent tool for creation, rather than just a craft technique of production, with an emphasis on its experimental aspect. Throughout history, there has been a gradual, but successive desire to expand the possibilities of graphic technology and use it not only for image reproduction, but also for its artistic values in the creation of ideas and visual content. The author also consistently describes modern printing techniques, their history, research, discoveries and summarizes this description, pointing out the reason and purpose for undertaking research in this specific area.

The next part of the dissertation is a detailed description of the research presented in the context of the author's own artistic method. The author discusses the possibilities and limitations of techniques, as well as the specifics of the tools used, physical, chemical and plastic properties of reagents and materials employed. The author also touches on theoretical issues based on the philosophy and theory of exceptional artists and art historians, who broadened her graphic worldview.

In the final part, the author describes the creative process, explaining the assumptions and decisions that shaped the final form of the artwork, and outlines her worldview, direction, and course of action. In the summary, the author answers the question that was predominant in these considerations: whether workshop and technique are more important than the subject presented in the thesis.