

Developing the waterless lithography printmaking process

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Abstract:

Since its invention in 1990, waterless lithography has been promoted as a safer alternative process to traditional stone lithography however with the examination of the waterless lithography process it is found to involve the usage of several toxic materials including but not limited to Acetone, Thinner, and spray paint. The extended exposure to those chemicals poses significant health risks to printmaking students, teachers, and artists. In addition, the traditional waterless lithography process has its limitations in terms of the size of the plate that can be produced and the poor quality of photo transfer. This research paper aims to develop a waterless lithography process so that it becomes easier to execute, less toxic and safer. In addition to the advantages of the developed process as an easier and safer process, it allows us to create larger scale prints and to have better quality photo printing results. This research paper is a result of experimenting for a period of 9 months in an attempt to develop the traditional waterless lithography process. During that experimental phase, the researcher has successfully modified a silicon-based coating that can be applied to a regular paper or heat resistant paper. The modified silicone coating allows direct drawing on the paper surface as well as transferring images via laser printing. Utilizing the developed lithographic process, the researcher conducted several mark-making experiments using different materials including oil-based, pigment-based, and toner-based materials and as well as laser printing and he produced several prints utilizing the developed waterless lithography process.

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