

# Exploring A New Materiality

Developing and applying a range of silicone composites for both practical and art related fields.

## Concept

With a first degree in ceramics/metalwork and 20 years’ experience as a cake decorator specializing in a piped buttercream technique, I began this innovative practice with an expertise that I was keen to explore: the potential to interpret my piping techniques to textile.

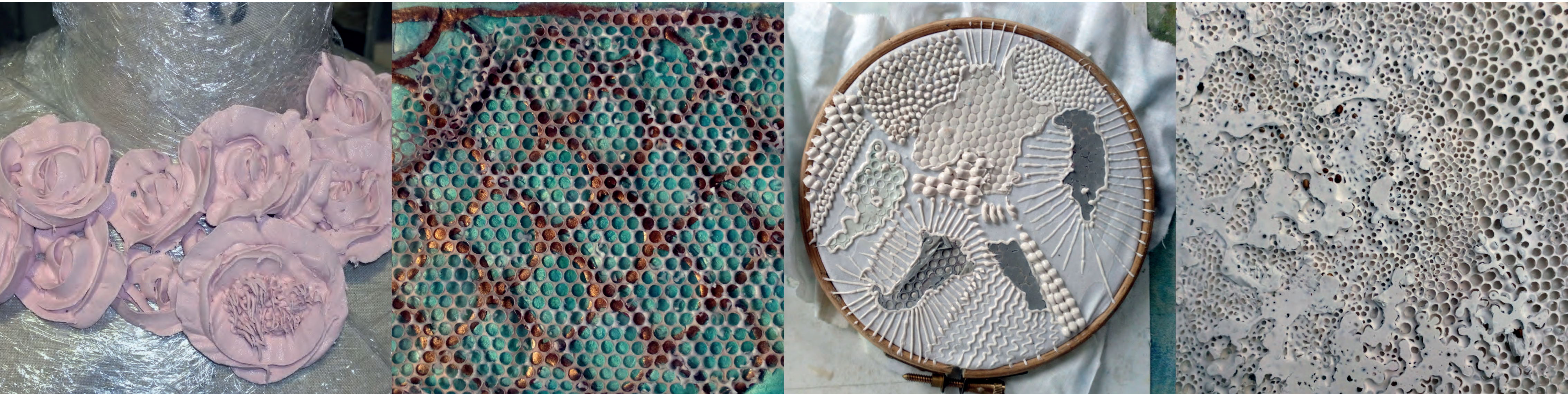
Investigations into a wide range of materials centered on finding something that could be extruded smoothly and hold its shape. Silicone was chosen as analogous substitute for buttercream. This initial discovery was built upon.

Mould Makers at MDM Props offered an introduction to industry standard RTV (room temperature vulcanization) silicone and to silicone suppliers, which included expert technical and chemistry advisors. Through this, a fundamental understanding of how silicone works was gained. This material knowledge was adapted and applied to my piping process.

## Research

Once the initial criteria were successfully met the focus shifted towards the potential applications of silicone within a textile context.

Research drew me to a traditional Japanese process called Yuzen, used in the production of kimonos. While not essentially 3-dimensional it offered the concept of building up pattern. Different layers, each utilizing a specific technique, one of which is piping resist at the dyeing stage and, later, glue for the application of gold leaf. It also utilizes stencils to create a final piece that has great depth to its texture. It has influenced my ideas on how to advance manipulating silicone.



## Process

Previous experience in ceramics was used to investigate casting in conjunction with methods learnt from workshop exploration of screen-printing, with the idea of “pulling” layers of silicone across fabric, creating 3-dimensional “prints”. This evolved into using stencils to create fine skin like layers.

Working with silicone is complex. It involves a variety of forms with a wide range of applications. Initial trials seeking to achieve specific results combining different silicones often resulted in failure due to incompatibility. When questioned, experts were often pushed to the limits of their experience by the innovative nature of my experiments. By using a specific silicone many of these problems were resolved. The application of silicone to fabric also proved problematic again, resolved through discussion with silicone experts and experimentation.

Along with silicone experts, additional industries were researched to gain further understanding. Manufacturing showed ways that silicone can be formed using machines. On the other hand, special effects model makers, prosthetic make-up artists, hyper realistic “Reborn” babies, and even car spraying all used methods of colouring and finishes using airbrushing. It is this process which has been adapted and re-interpreted in my own work, leading to a refinement in the creation of skins and the adherence of silicone to fabric.



## Results

The hand-crafted nature of this work is important to me, taking industrial techniques into a studio context. The process of applying a craft ethos gives results that are organic with unexpected nuances, transforming silicone from its original industrial use.

The decision to use a specific silicone was informed by extensive experimentation with a wide range of silicones and has been chosen because it is more adaptable and robust than many others. It has, however, posed challenges that have been resolved through the application of an informed response. My research has led me away from my initial, purely decorative approach, to a more technical, process-led outcome. A culmination of finding solutions to problems has resulted in a skill set adaptable to a wide variety of applications such as textile embellishment, interior design and interactive surface usages. The learning around the material has superseded considerations such as pattern and theme, which initially were at the forefront of the project. It is only now, in the final module, having acquired enough knowledge, that these elements can once again be explored and brought into the process.

Katja Seaton  
katjaesme@hotmail.com

