

The Rough and the Sublime



Ester Beck discusses the processes of Shulamit Teiblum-Millar

Above: **Bowls.** Porcelain, thrown and altered, matte crystalline and volcanic glazes, fired to 1290°C in an electric kiln. 15 x 15 cm. photo: self

Below: **Bowl.** Stoneware, thrown and altered, crystalline and volcanic glazes fired to 1290°C. 7 x 25 cm.

Photo by Ayah Wind.

SHULAMIT TEIBLUM-MILLAR IS A VETERAN ISRAELI POTTER WHOSE WORK IS characterised by a surface rarely seen: she plays with a combination of two diametrically opposed glazes on her vessels; one crystalline and one volcanic. Her vessels' classical forms are shaped on the wheel, and are then subject to manipulation and alteration which shift them away from their historical-cultural origins, to forms that are unique and have certain 'randomness' to them.

She is also a long-time teacher, teaching technology and wheelwork. She has raised generations of ceramists, in both her private classes as well as at the Tel-Aviv Museum Ceramic School. Her studio is situated within an urban environment in Giv'atayim, a municipality adjacent to Tel-Aviv. During the past 14 years Teiblum-Millar has been studying and developing two types of glazes, to which her references are both geological and historical processes. The volcanic glazes serve both as a reflection of geological processes, as well as a reference to the sandstone ridges of the coast of Israel, locally named *Kurkar*. This iconic stone was used in domestic construction in past days and is a part of her early visual memories.

The crystalline glazes, on the other hand, attract her because of their refinement and elegance. The contrast between such two different glazes on one vessel is of great fascination to her. Since the volcanic glaze on its own would be too 'desert-like', Teiblum-Millar is driven by the search for the right balance and combination between the two. This painterly surface effect is a continuous challenge to her, and she constantly investigates to what extremes she can take these two totally contrasting glazes. Teiblum-Millar is also





Above: **Servis**. 2012. Stoneware, thrown and altered, crystalline and volcanic glazes fired to 1290°C. 10 x 45 cm.
Photo by Ilan Amihai.

Below: **Basin**. Stoneware, thrown, crystalline and volcanic glazes fired to 1290°C. 45 x 20 cm.
Photo: by Yasmin & Arie.

concerned about the surface quality of her volcanic glazes; they have to be friendly, not abrasive, so that the vessel can be enjoyed by touch as well as visually.

The two glazes represent snapshots of geological processes: The volcanic is a frozen moment of the magma boiling underneath the Earth's crust. The crystalline is a product of the magma's consolidation. There is a clear timeline between the two extremes in this process, both of which coexist extra-temporally on Teiblum-Millar's vessels.

Technically, her crystalline glazes can contain either feldspars or frits. Each frit-based glaze will give a different structure and density of crystals, as well as different tones to the colorants (mostly the metals' carbonates). In contrast, the feldspathic based glazes will give a more crowded surface texture.

Although there are many disappointments, there are many exciting discoveries as well along that path. The investigation into different frits and feldspars allowed her to discover new ranges of colours. When compared to the crystalline glazes, achieving control in the volcanic was much easier technically, although in her first attempts the main problem with the volcanic glaze was the tendency to splatter onto the walls of the kiln during firing. This was caused by the silicone-carbide particles, without which the volcanic effect cannot be achieved.

The clay used for the vessels is mainly porcelain, but when working on big open bowls, Teiblum-Millar uses stoneware to prevent deformation during firing and will cover the stoneware with porcelain slip to keep the desired effect. She has now developed her own formula of porcelain with a local manufacturer:





Above left: Tea on the Rock.

2012. Porcelain, thrown and altered, crystalline and volcanic glazes, fired to 1290°C. 35 x 30 cm.

Below: Vase. Porcelain, thrown and altered, mat crystalline and volcanic glazes, fired to 1290°. 25 x 12 cm.

Above right: Teapot (Detail of Tea on the Rock). 16 x 15 cm.

Photo by Ilan Amihai



a porcelain body whose properties solve the problem of warping and deformation. Sometimes she will mix the porcelain with a 5th part of white stoneware. This is also done to prevent warping. This is a good option since she is not concerned with translucency in porcelain. Her reasoning for working with porcelain is to get the clean white 'canvas' feel, allowing her to treat the surface of the vessel as a painter. More so, crystals come much more into their own on porcelain since they need a smooth surface on which to grow.

Another common difficulty is that crystalline glazes have a tendency to run (flow down) during firing. In order to deal with that Teiblum-Millar prepares a range of bisque-fired rings and bowls, so that each bowl will harbour a vessel fitted with a properly sized ring. The purpose of the ring is to raise the vessel above the inevitable pooling of the glaze in the bowl.

To give an example of the complexity of the glazing process, a vessel will have to undergo the following steps: First, glazing the inside with a transparent glaze. Then dealing with the volcanic section by brushing a silicon carbide slip (a white slip containing 2 percent silicon carbide 380 mesh) and on top of it two different layers of matte glazes applied by brush. Onto this, wax is applied as a separating agent, then a thick layer of the crystalline glaze is poured or brushed on the entire outside surface of the vessel. This glazing process takes a great amount of time and care. Each glazed vessel is glued to its stand with a mixture of glue and kaolin before being placed in the catching bowl.

The entire process is highly structured, starting with the vessel's shape, continuing on to the lengthy glazing combination process and finally mounting the vessel on the rings and bowls. All is carefully planned beforehand.

Teiblum-Millar fires in an electric kiln. First all wares are bisque fired, then the second firing, which takes six and a half hours to peak temperature, goes up to cone 10. Once reaching peak temperature of 1280°C, a short



soaking of about 10 minutes is allowed, after which, the kiln is cooled to 1100°C and soaked again for four to five hours at this temperature. At this stage the glaze is in a phase between the melted and the viscous, in which the particles can move and reassemble around the nucleus and form a crystal. At the end of the soaking period, halos can be created by dropping the temperature further down to 1050°C and increasing it back to 1100°C several times over.

This entire process is tricky and uncertain. Its success depends on many factors such as the thickness of the glaze applied, the loading (for example, the location in the kiln), the fluctuation in the electric power source, the speed of the firing to the maximum temperature (if too slow, the glaze will run down and will not create crystals).

After the firing, when unpacking, some vessels will easily detach from the ring underneath them. Those that will not come off easily enough will be heated around the ring with a torch to produce a thermal shock, which allows the ring to be knocked off and to separate from the vessel. The foot will then be smoothed with a grinding stone.

Sometimes Teiblum-Millar will reduce certain vessels in a raku kiln in a third firing to produce a range of purple and red background colours for the crystalline glazes. The schedule for the reduction firing is as follows: one hour to climb to 800°C, then start reduction while going down in temperature to 600°C in a one-hour span. To achieve purples she uses rutile and ilmenite in the glaze composition. The reds will come out using copper in the glaze.

When a matte crystalline effect is desired, Teiblum-Millar employs the use of about 20 percent barium carbonate in the glaze. At this point in time she is experimenting with reducing her matte glazes.

Each firing is meticulously documented: a strict diary, including firing graphs, is kept in order to enable either the reproduction of the exact same conditions during future firings, or to allow controlled manipulations to them. This is crucial for the evolution of Shulamit Teiblum-Millar's work.



Above: **Ongi**. 2011. Stoneware, thrown and altered, matte crystalline and volcanic glazes, fired to 1290°C. 30 x 30 cm. Photo by Ayah Wind.
Below: **The Artist's Signature**.
Bottom: **Shulamit Teiblum-Millar**.



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