

'The Other Side of the Moon'

Over the moon with
an award-winning piece

By Llyn L. Strelau

For more than 500 years and 25 generations, Idar-Oberstein in western Germany has been the centre of that country's gem-cutting industry. The convenience of local water from the Nahe River and the Idarbach to power machines, along with mountains rich in agate and jasper, has resulted in a centuries-long tradition of cutting and carving gem materials.

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Historically, craftsmen in Idar—as it’s known by the locals—supplied carvings, cabochons, and faceted gemstones to European and North American collectors and jewellery artists, such as Fabergé, Tiffany & Co., and Cartier. However, when local supplies dwindled in the late 19th century, gem dealers travelled abroad, particularly to Brazil, where gemstones could be easily recovered from open-pit mines or river beds. They sent these materials to Idar, where the technical skills of cutting and carving were still alive and well.

Today, Idar has many workshops ranging from single artisans doing piece work in their home studios to larger factories supplying jewellers around the world with gemstones of all sorts and specialties, such as hard-stone cameos and intaglios. The town has produced masters like Hans-Ulrich Pauly, whose whimsical and beautiful carvings are inspired by nature, as well as Bernd and Tom Munsteiner, who created ground-breaking styles of gem cutting that changed the face of the industry. Other carvers have produced larger-scale works, incredibly life-like animals and birds often combining different gem materials to suit the subject and accented with precious metals and cut gemstones.

Why am I telling you this? Well, the pendant you see on the opposite page features two agate carvings I purchased from Hans-Jakob Klein, one of Idar-Oberstein’s fine gem suppliers. Not only that, but at the writing of this article,

it was announced my design had won first place at the 45th German Award for Jewellery and Precious Stones Idar-Oberstein 2014. Let’s take a closer at some of the technical challenges in the pendant’s design.

Face off

The carvings used in the pendant were cut from the inside of agate geodes encrusted with druzy quartz (*i.e.* tiny quartz crystals that look like the surface is dusted with sugar). One carving is white, while the other is dyed black. (Natural black agate is actually quite rare. The vast majority of black ‘onyx’ is neutral-coloured agate that has absorbed a saturated sugar solution before being immersed in acid to carbonize the sugar. The result is a dark-brown colouration that appears black unless held up to bright light.)

Druzy quartz crystals are not porous and remain transparent, which makes for artistic potential. The carvings I bought were in the form of crescent moons, the crescent retaining the druzy crystals with the moon face carved in low-relief silhouette into the base agate. The contrast between the face’s matte surface and the druzy quartz’s glitter is quite striking.

When I purchased these carvings, my original design concept was to use both the faces as the feature of a neckpiece. Three design problems came to the fore, however: First, the black carving was larger than the white one. Second, both faces were carved to show the

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To allow for the carvings to be set up against one another, a local lapidary cut the black agate from 50 mm to that of the white agate, which is 39 mm in diameter.

right profile view, which didn't look good. And third, at 50 mm in diameter, the larger carving was simply too big to be practical for wearing.

Upon further reflection, I came up with a solution: set the two carvings back to back and create a reversible piece. Of course, this meant I had to cut down the larger moon to the same diameter as the smaller carving, which was approximately 39 mm. I turned to a local lapidary for that.

My idea for the design called for a 19-karat white gold bezel for each carving. From a technical point of view, these bezels would be both tricky and very time-consuming to make. The carvings are not flat and linear, but rather undulate gently, reflecting the original form of the inside of the parent geodes. It would be difficult to hammer a bezel over the front of the carvings without the possibility of damaging the druzy crystals. However, our laser welder allowed us to set the carvings in their bezels from the back with no risk to the gems.

Risky business

Erkki Mursula, one of our goldsmiths, began by making two fully circular bezels in white gold plate approximately 0.8 mm thick, high enough to encompass the full depth of the carvings, plus a few extra millimetres. Next, with the carving held in place, he used a sharp scribe to trace the contours of the stones' front on the inside of each bezel, leaving the back the full height for the time being. Following this line, Erkki trimmed the excess metal from the front of the bezel.

For the bezel's front, he used a circle made from very well annealed white gold rectangular wire measuring approximately 2.0 x 0.7 mm. This was malleable enough to be manipulated to conform to the contours of the top of the bezel. Working around the perimeter, Erkki tacked the wire to the bezel with the laser welder. Once done, he soldered the pieces together, and filed and shaped the resultant bezel rim.

With the fronts attached on both bezels, it was time to fit white gold bearings behind the carvings to support them in their bezels. Using a similar technique, the bearings (this time approximately 2.0- x 2.0-mm square wire) were first tacked to secure the carvings in place. Of course, with the carvings in the bezels, soldering was not possible, so Erkki used the laser welder with fill wire to completely attach the bearings with no risk to the gems. Once filed and finished, the joint was invisible and the carvings were set securely.

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Photo courtesy Lyn L. Strelau

The pendant's owner originally wore it using a pearl strand attached with a proprietary clasp system, however, for the competition's purposes, two 25-strand ropes were used.



Photo courtesy Lyn L. Strelau

A 1.02-carat fancy round-cut by Gabi Tolikowsky accents the black agate side of the pendant.

The piece was to be reversible with the two carvings attached back to back. This meant the rear surface of each carving would be visible and provide a contrasting backdrop to the carving facing forward. Erkki removed the unnecessary segments of the circular bezels once he had welded supporting metal at the tips of each crescent. This served to isolate and enhance the arc of each moon.

The next step was to attach the bezel-set carvings together. The pendant was to include a proprietary clasp, which meant we had to fit the male bayonet cylinders between the two carvings. To accommodate the carvings' undulating contours, we used white gold plate to bridge the variable gaps between the backs of the bezels and laser-welded them. Next, we drilled holes in the bridges to accommodate the bayonet findings. Three points of connection were adequate and we oriented them such that the two at the top attached to a chain or pearl strand and the third, located at the bottom, could hold an optional pearl or gemstone accent drop.

To complete the piece, I chose a 0.09-carat pear-shape white diamond that was bezel-set and attached (with an articulated connection) to the upper tip of the white agate crescent moon. On the black side, I used an odd-ball round diamond that had been in inventory for many years. It is a 1.02-carat fancy round-cut by Gabi Tolikowsky and is yellowish-grey in colour with rather a lot of internal inclusions. Under a loupe, the clusters of black specks are concentrated in a crescent shape on one edge of the diamond, providing a subtle and secret re-enforcement of the pendant's theme.

The client who ultimately purchased the pendant already had several pieces of jewellery that use the same clasp system, meaning she can wear it with several of her existing pearl strands, as well as a stainless steel chain or even a black silicone neck cord.

The circle is complete

After we finished and delivered the piece, I received the call for submissions to the 45th German Award for Jewellery and Precious Stones competition. By happy co-incidence, this year's theme was 'Moonlight.' My client was generous enough to loan the pendant back to me so I could send it to Germany. However, since this competition does not allow the use of organic gemstones like pearls, which was my first choice for a carrier, I had to find an alternate method to make it wearable.

bench tips

The pendant includes a proprietary clasp with male bayonet cylinders positioned between the carvings. Two sit at the top of the pendant to attach a chain or pearl strand and the third is located at the bottom, allowing for an optional pearl or gemstone accent drop.

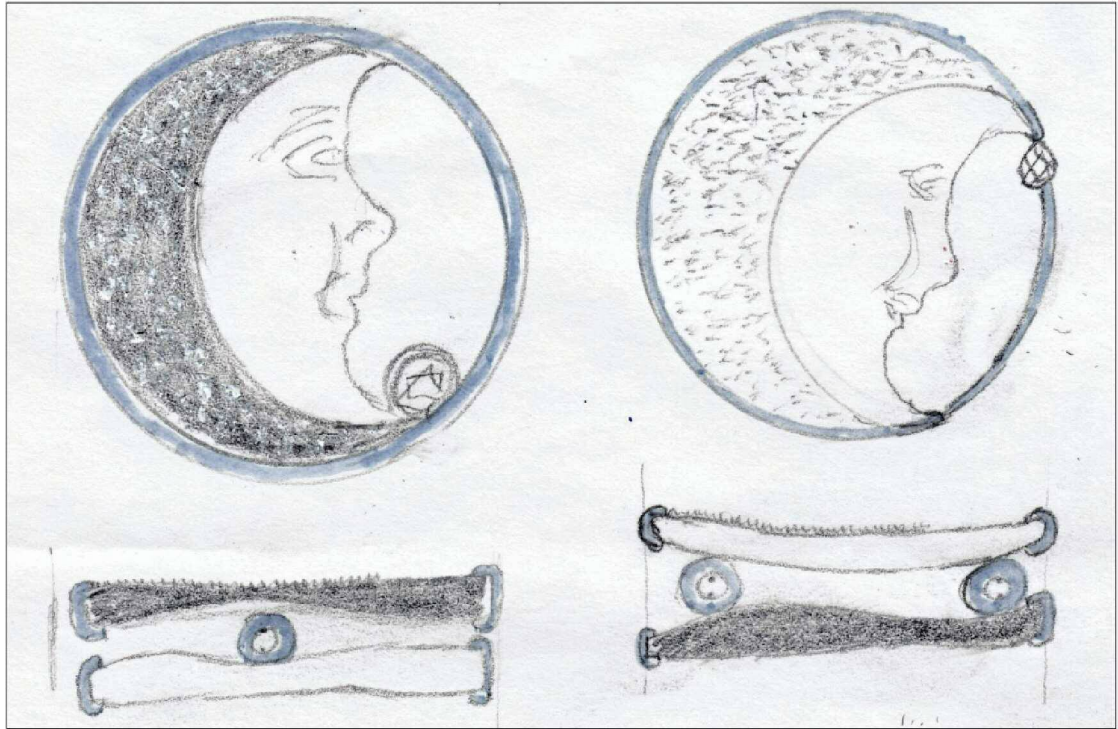


Photo courtesy Llyn L. Strelau

Another German supplier (this one from Phorzheim) provided the ideal solution: two 25-strand ropes of very tiny chains gathered together in tubular end caps. Both were 18-karat white gold, but one was electroplated with black ruthenium. The style of the individual chains provides a subtle glitter that was a perfect complement to the druzy quartz crystals, while maintaining the black and white theme. They were each 18 in., which would have been too long and too small in scale for the centre pendant. However, doubling them provided the perfect proportions.

My first thought was to simply combine the two necklaces in one 18-in. rope of 50 bi-coloured strands. However, taking the necklaces apart and re-attaching 100 ends of tiny chains was a daunting task. We decided to simply double each rope and loop them together at the back. Next, we made two new tubular white gold end caps, each large enough to accept the chains' existing end caps. We welded the four ends inside these new caps and attached the male bayonet findings to complete the neckpiece, which we called 'The Other Side of the Moon.'

While enjoying a vacation in Italy last October, I was in a taxi from the train station to our hotel when my cellphone rang. A good friend and gem dealer from Idar

who is part of the competition's governing committee stunned me by saying 'The Other Side of the Moon' had won first place in this year's contest. Though I am not often speechless, I must confess I was flabbergasted and it took a while for reality to sink in. Of course, this meant another trip back to Europe to attend the awards presentation in Idar-Oberstein. The hospitality and generosity of my German hosts was fantastic and it seemed completely appropriate that a piece inspired by carvings originating from Idar should return there for recognition. ♦



Llyn L. Strelau is the owner of *Jewels by Design*, a designer-goldsmith studio in Calgary established in 1984. His firm specializes in custom jewellery design for a local and international clientele. Strelau has received numerous design awards, including the American Gem Trade Association's (AGTA's) *Spectrum Awards* and *De Beers' Beyond Tradition—A Celebration of Canadian Craft*. His work has also been published in *Masters: Gemstones, Major Works* by Leading Jewelers. Strelau can be reached via e-mail at designer@jewelsbydesign.com.