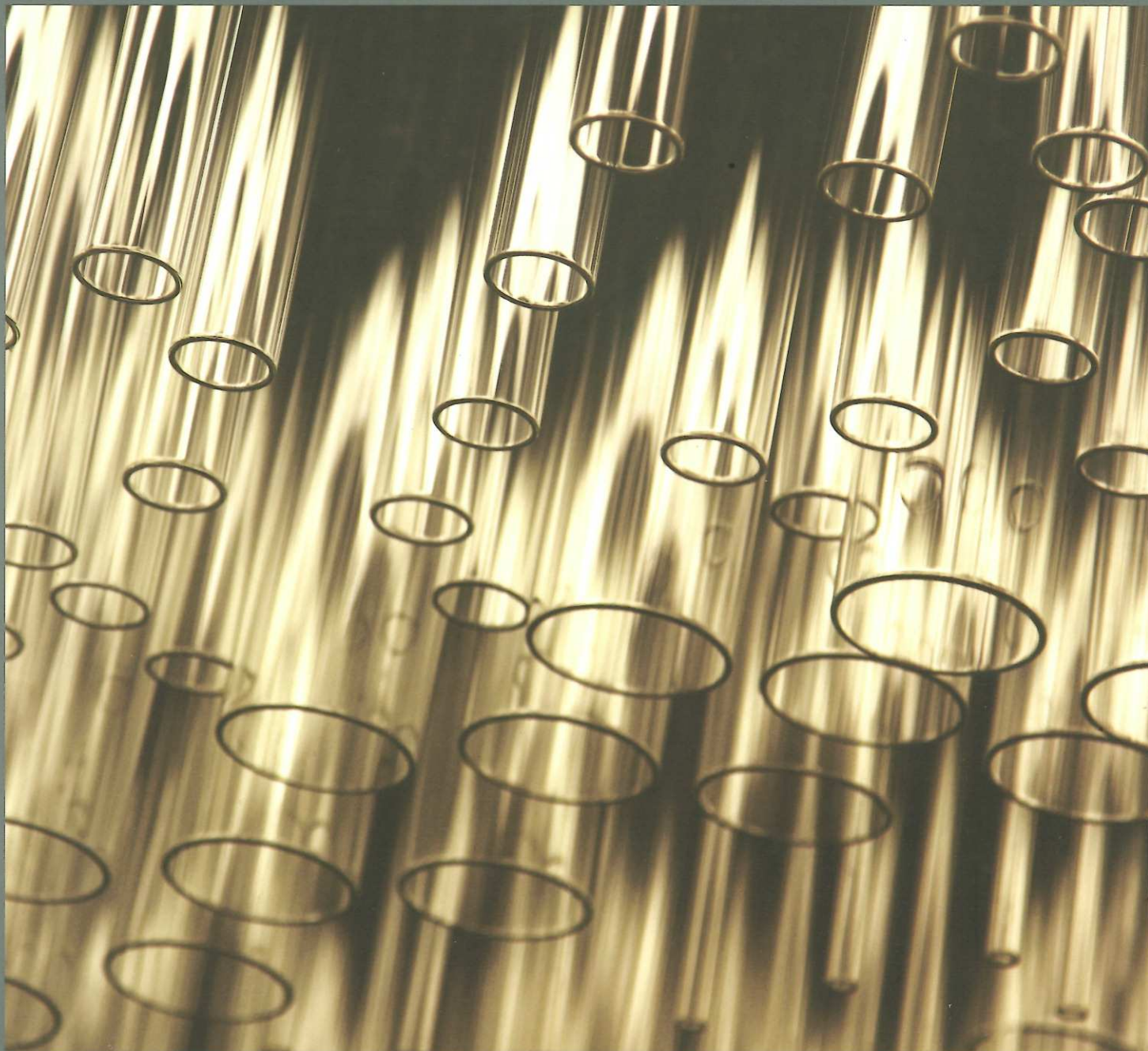


# Superyacht

INTERIOR DESIGN

EXTERIOR SPACE

CREATIVITY AND ARCHITECTURE



# DESIGN

## CASE STUDY

Sounding groups help influence Cor D Rover's yacht designs by allowing him to anticipate changing attitudes.

## ARTISAN

Delving into the architecture behind the works created by Czech glass artist Jan Frydrych.

## SPACE

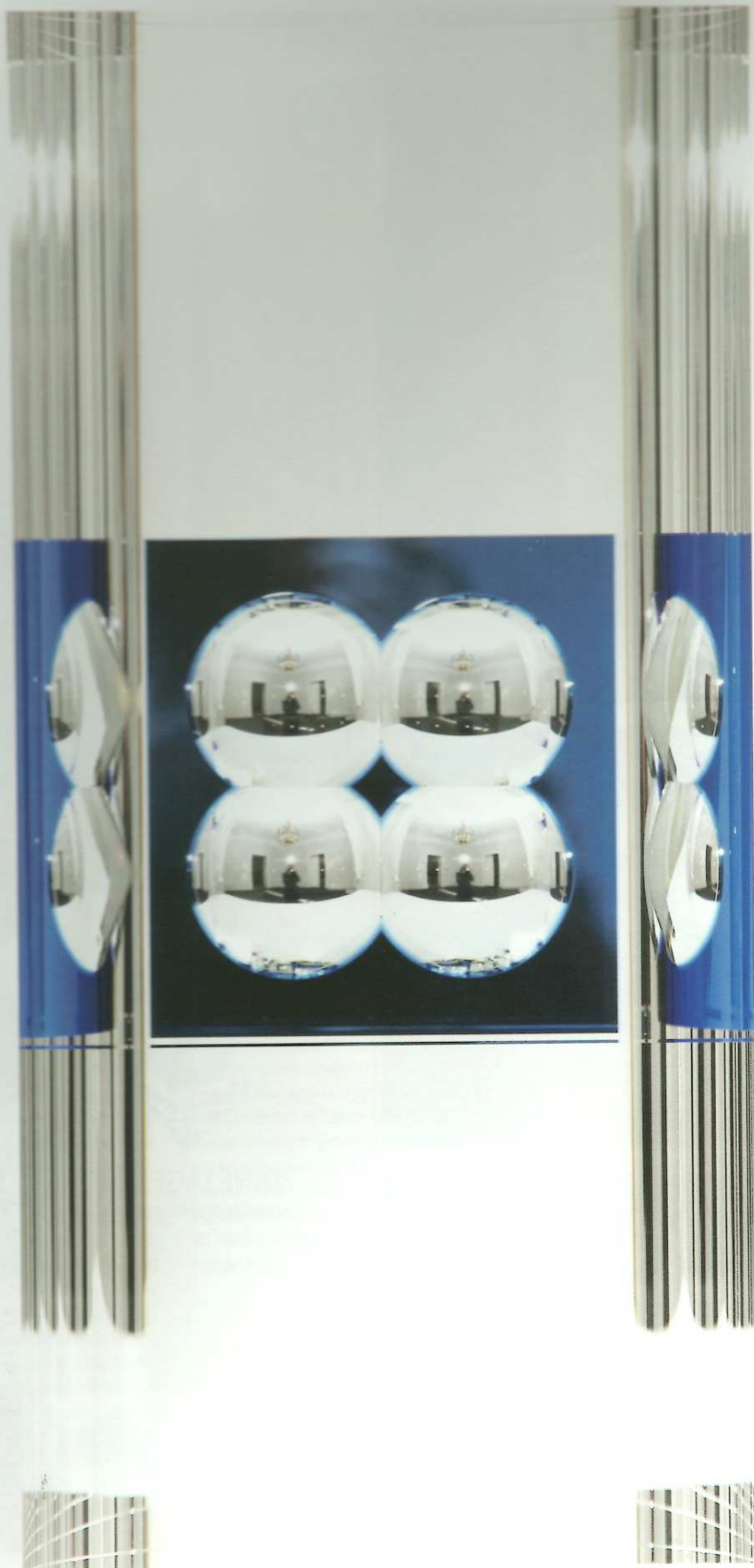
Designers Greg Marshall and Dimitris Hadjimos present new solutions in a bid to enhance crew privacy.

## TECH TALK

Why monohulls remain the dominant choice for motoryacht owners when there are so many alternatives.

# ARTISAN

JAN  
FRYDRICH



FOUR SEASONS



# PERFECTION IS A LIFELONG TASK

*Titan, Talisman C, Excellence V and Pegasus* are just a handful of the superyachts adorned with chandeliers and sculptures created by Crystal Caviar. Working in collaboration with yacht designers and artists alike, the Czech Republic-based company strives to collaborate with leading creative minds to deliver unique pieces. One of the artists it works with is Czech glass artist Jan Frydrych, who has consulted on a handful of Crystal Caviar's chandelier projects alongside producing his own bespoke works of art.





ANDREW JOHANSSON



Once a student of Czech glass professors Stanislav Libenský and Václav Cigler, Jan Frydrych has dedicated his life to honing his craft. His unwavering commitment to achieving perfection has made him one of the most respected artisans in his field today. So much so that he claims to have seen 80 per cent of the glass artworks produced in the Czech Republic as artists send their pieces to him to seek help in the polishing and finish of their works.

An artist and master of glass manipulation, Frydrych's first creations were influenced by the history and heritage of the great Czech glass masters, with his early works accomplished by using traditional grinding techniques and methods applied in his home region of Nový Bor. However, his approach and thinking took a dramatic turn in the late 1970s, forcing Frydrych to explore the use of new materials, namely optical glass, to realise his ideas.

Made predominantly from silica, optical glass is naturally clear, bubble-free and expensive, and it's commonly used to create lenses in cameras and microscopes. Harder than traditional glass or crystal, optical glass is labour-intensive to grind and polish—the

process applied to achieve a shiny and clear finish.

"Optical glass requires a different technique approach to normal glass, which is why I combine traditional techniques of cold grinding with techniques I have developed over the years to manipulate this material," explains Frydrych as he humbly shows us around his grand home—undergoing renovation at the time of writing—with his wife Anna. While the four-storey house is mainly for family affairs, the basement is a dedicated workshop where all Frydrych's creations are developed by hand and eye alone, which includes kilns and work stations for cutting, grinding and polishing. ▶

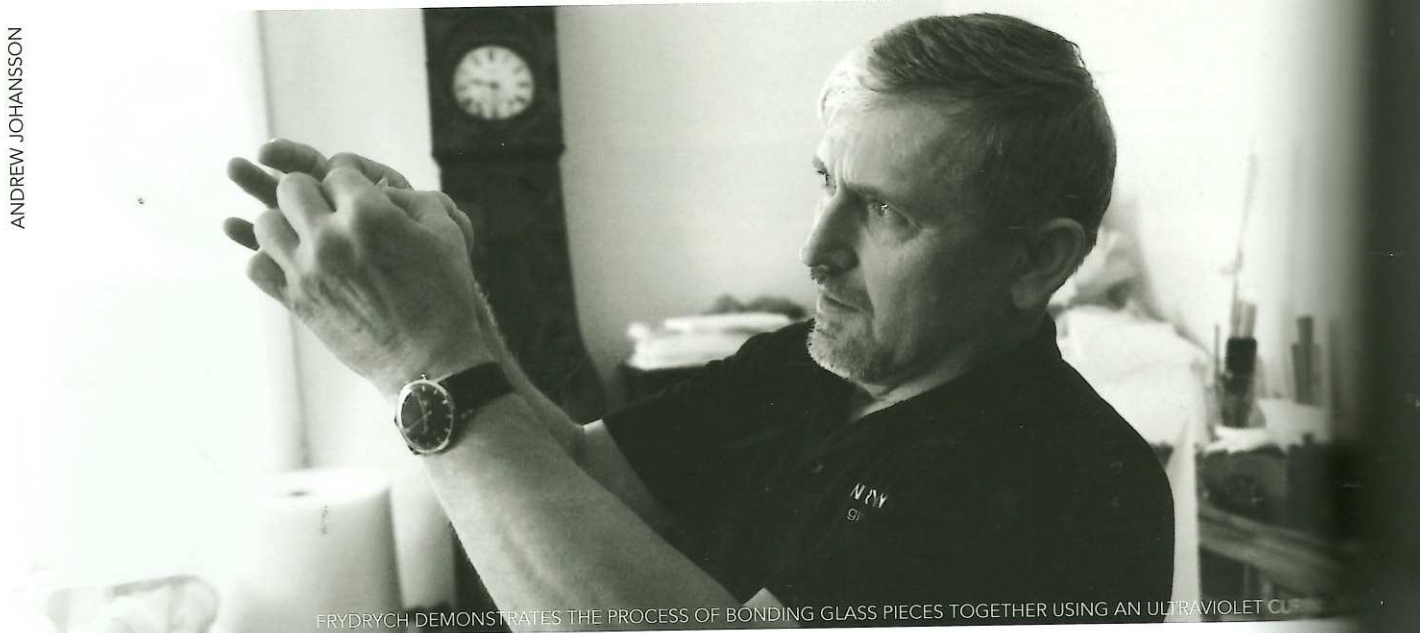




JAN FRYDRYCH POLISHES ONE OF HIS LATEST CREATIONS IN HIS PRIVATE WORKSHOP.

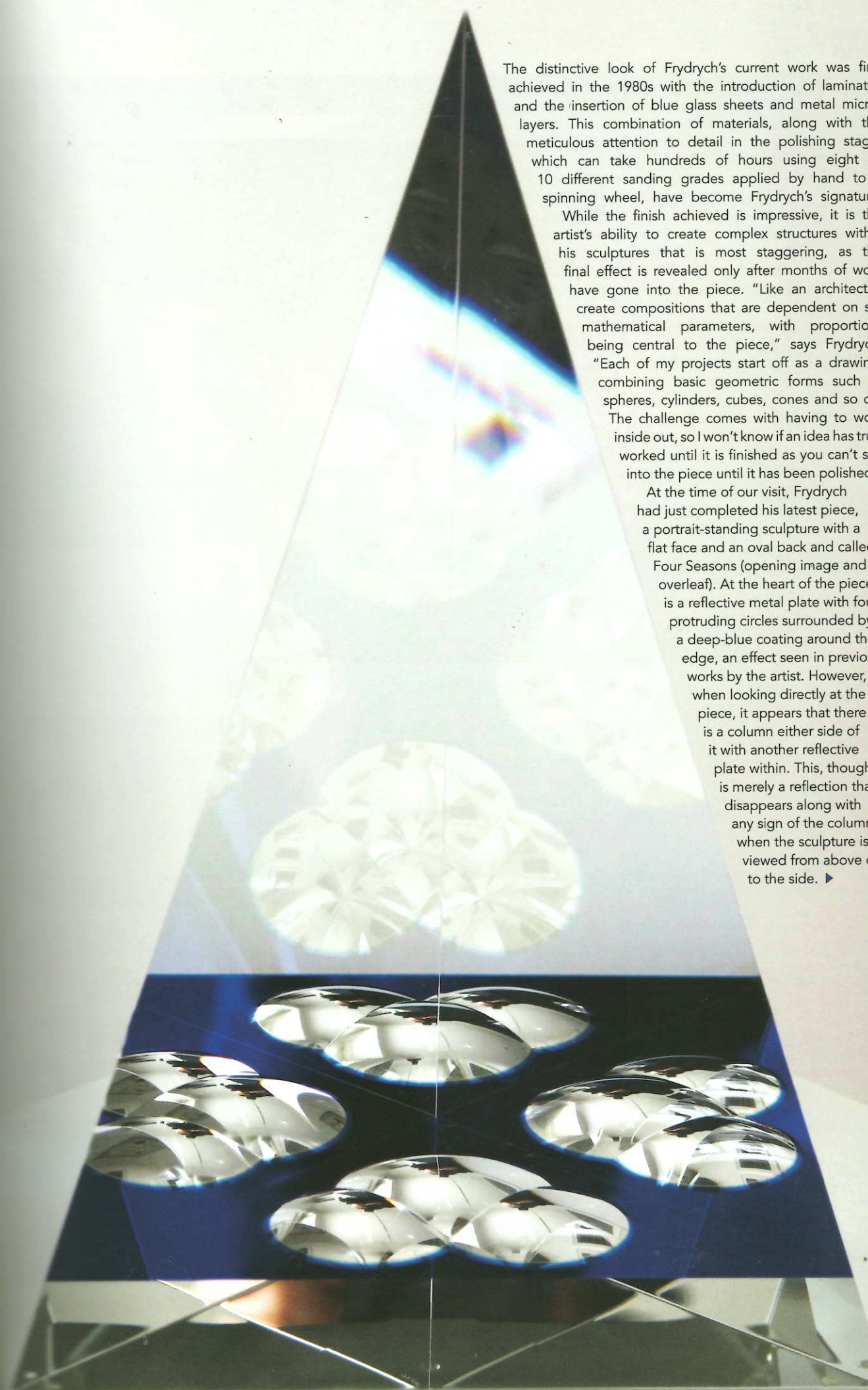


ANDREW JOHANSSON



FRYDRYCH DEMONSTRATES THE PROCESS OF BONDING GLASS PIECES TOGETHER USING AN ULTRAVIOLET CURE.





The distinctive look of Frydrych's current work was first achieved in the 1980s with the introduction of laminates and the insertion of blue glass sheets and metal micro-layers. This combination of materials, along with the meticulous attention to detail in the polishing stage, which can take hundreds of hours using eight to 10 different sanding grades applied by hand to a spinning wheel, have become Frydrych's signature.

While the finish achieved is impressive, it is the artist's ability to create complex structures within his sculptures that is most staggering, as the final effect is revealed only after months of work have gone into the piece. "Like an architect, I create compositions that are dependent on set mathematical parameters, with proportions being central to the piece," says Frydrych. "Each of my projects start off as a drawing, combining basic geometric forms such as spheres, cylinders, cubes, cones and so on. The challenge comes with having to work inside out, so I won't know if an idea has truly worked until it is finished as you can't see into the piece until it has been polished."

At the time of our visit, Frydrych had just completed his latest piece, a portrait-standing sculpture with a flat face and an oval back and called *Four Seasons* (opening image and overleaf). At the heart of the piece is a reflective metal plate with four protruding circles surrounded by a deep-blue coating around the edge, an effect seen in previous works by the artist. However, when looking directly at the piece, it appears that there is a column either side of it with another reflective plate within. This, though, is merely a reflection that disappears along with any sign of the columns when the sculpture is viewed from above or to the side. ▶

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FRYDRYCH'S CHRONOMETER

"While the two columns that appear either side are clever, it is the reflection created on the base concealing what is below it that captures my attention," says Marek Landa, Frydrych's long-time friend and owner of Crystal Caviar, as we study the piece from every angle. Despite having worked with him for many years, Landa is often surprised by the glass works that are created. "With this new piece, the mystery is in the disappearing act in the base. When looking through the glass from above, what is below is revealed, but when you look at what is below from the front, you don't see anything." This effect is achieved thanks to a very fine reflective surface within the piece that conceals the base when viewed from certain angles.

"There have been occasions when I've had an idea but because I don't know how to realise it, the idea gets benched for a few months, or a couple of years, until I conceive a solution to produce the piece in reality," reveals Frydrych as he explains the many complex calculations that went into creating Four Seasons. "Every idea I conceive is difficult to create and I try to make them as simple as I can, which is often the hardest to achieve well. Make no mistake, though, everything I create comes from months of hard work using only my hands, simple materials, my imagination and some improved mechanical equipment that is more than 200 years old—the road to perfection is a lifelong task!"

With such attention to detail, it is little wonder that Landa has chosen to work with Frydrych, collaborating on projects for both on land and at sea. The businessman actively promotes the artist's work and has a deposit on two of his current 16 sculptures, which will add to Landa's collection of bespoke works for sale through Crystal Caviar.

"He is the only artist from the Czech Republic to have had one of his pieces bought by the Victoria and Albert Museum," says Landa. The piece in question is called Vejce (Egg: sign of secret and new life), which was created together with Professor Václav Cigler, from whom Frydrych has learned and worked with for 33 years. While the artist's portfolio is diverse in terms of shape and proportion, there are a couple that pay homage to sailing. The most obvious is entitled Sail, a 50cm-wide and 50cm-tall solid sculpture. However, it is Frydrych's most recent design that takes a step further with the creation of a base for a chronometer, which combines his love for both timepieces and glass sculptures. The unassuming collector has in excess of 400 clocks and 1,200 watches, some of which he has restored himself, further highlighting his passion for and understanding of intricate and mechanical works.

But what of the future? While Frydrych has taught (and still teaches) a number of students over the years, few are able to produce works to the same level of intricacy and complexity of his designs. It is his passion and obsession for perfection that pushes him to create ever-more challenging pieces presented in a beautiful form that appears relatively simple at first glance. It's only on closer inspection that you discover the inner world of architecture that has been achieved.

"Nobody will be able to create the works I do after I die," says Frydrych. "Who knows, I might write down some of the secrets of my craft, but who will read and translate my ideas? And will they be able to interpret them as intended? Unless you learn how to turn dreams into reality, they are nothing but good dreams." ■



LOOKING STRAIGHT ON, THE TEXT BELOW IS CONCEALED





CRYSTAL CAVIAR'S CHANDELIER TESTING PLATFORM

## QUALITY CONTROL

One of the main challenges for any crystal or glass manufacturer when installing a chandelier on a vessel is less to do with movement and more to do with vibrations. Marek Landa, owner of Crystal Caviar in the Czech Republic, breaks down the testing process of their chandeliers, which are often created in collaboration with artists and designers alike.

When we build a chandelier for a yacht, we assemble the entire structure on site first to check that every piece is fit for purpose and meets our exacting standards. It is then mounted on to a specially engineered ceiling that simulates the movement and vibrations on a yacht. We leave the piece on here for anything between a few days to a week, and if nothing falls down or makes a noise, we know it will work on the yacht.

This phase is an important step in the production process as you can come across latent faults within the glass that could lead to a failure in it. I recall on one of our yacht projects, we fitted the chandelier in question to our test ceiling in the evening and by the morning it was in pieces on the floor. In this instance, something went wrong during the manufacturing process and this can occur if the glass is cooled too quickly or too slowly, creating tension within it and causing it to break. The important thing here is that any problems that occur happen on site and not on board the yacht. This process also allows us to ensure that the chandelier doesn't make any noise, and we use silicone and

vibration pads to combat any areas that are likely to make noise.

This testing facility is one of the things that differentiates us from other manufacturers and I'm not aware of any other company doing what we do, although there are some that are looking to develop similar systems for testing.

While this process highlights many problems, the quality control continues at every stage of the project. On *Ann G*, for instance, we made a three-tier chandelier that stretches down through the atrium and another one that hangs in the dining room. During the installation, we came across some mistakes with one of the chandeliers, so we built it again. With each project we do, we make more than one of a section so that if there are any problems with a piece, or should something break, it can be replaced relatively quickly. In the

instance of *Ann G*, we were able to deliver a new chandelier within 14 days instead of three or four months.

While it would be hard to notice these mistakes, we know that it is possible they could lead to problems later, which is not acceptable. If the chandelier had been installed in a house, there wouldn't have been any concern as there is nothing wrong with it, but due to the exposure to vibrations there is another level of complexity to consider. Having been in this line of work for so many years, you get a feeling for when something is not right, even if there are no visible signs—it is a sixth sense that is hard to convey but many of my team experience the same. In these instances, we look at everything in great detail to address any possible issues because if we can feel something is wrong, it is likely that the owner will, too.



MAREK LANDA

ANDREW JOHANSSON