



A Fine Art

Once known as the watchmaker's paint, the artistry of modern enamelling turns the dial of a timepiece into a miniature canvas

Enamel, which is pigmented ground glass, bonds to metal surfaces when subjected to intense heat, generating a beautiful and delicate palette. The process is painstaking and arduous, requiring numerous applications of enamel followed by firings in a kiln to build up layers and contrasts in color. Because of the small surface area on a watch dial and the level of detail, much of the work is done squinting through a binocular microscope.

If the process is not already complicated enough, enamel tends to be a finicky medium. It shows its displeasure at the slightest contaminant—as little as a speck of dust—by bubbling, discoloring or cracking. When cooled too quickly, enamel heartlessly fractures hours upon hours of work into useless pieces.

Furthermore, unlike paint, enamel colors cannot be mixed together to formulate a new hue. Adjustments in firing times and

temperatures account for delicate differences in shading. What looks red when applied on the dial can actually turn to a pink or orange during successive firings. Therefore, the enameller has to visualize the end product before even beginning.

However, success results in gorgeous works of art that hold their brilliance and detail through the centuries. Strapping one on your wrist, links together the past, present and future.

When creating a dial, the enamellist chooses from four basic techniques depending upon the design and desired effect. The cloisonné process outlines the drawing with fine gold, silver or bronze wire, bent into shape by tweezers. The wires are then soldered into place forming what are called cells, into which the enamel is applied. Cloisonné lends itself to compositions that incorporate many



1 Speake-Marin
2 Van Cleef Arpel
3 Patek Philippe



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curves as well as those requiring a high level of detail.

The *champlevé* technique works best for designs without lots of undulations. Instead of outlined above, the picture is engraved on the dial surface and then hollowed out, forming cavities to receive the enamel. The enameller can modify depths to devise more play with color and visual effects.

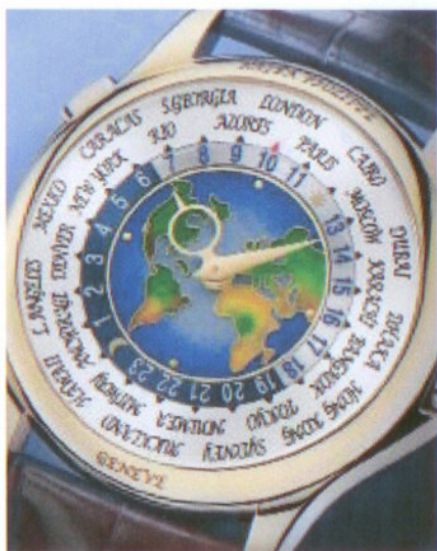
With Miniature painting, also referred to as the Geneva Technique in homage to the city where it was perfected, the artist mixes enamel with oil and paints compositions directly on the dial with an ultra-fine brush. Applied in layers, the enamel doesn't reveal the complete picture until after 20-25 firings. Because colors intensify with each exposure to heat, the enameller has to work out beforehand how many firings there will be to anticipate the outcome. Three weeks of work can be ruined by one misstep.

Paillon enamelling, takes its name from the French word for the tiny motifs cut from gold or silver leaf, these delicate "paillons" are carefully placed on the dial in different layers, creating a three dimensional effect. Modern dials that incorporate this technique are rare, preserving within their glaze a literal piece of history. Since Jaquet Droz has cultivated a reputation for beautiful dial work, it follows that the brand would resurrect Paillon enamel. In a limited edition of eight, the *Petite Heure Minute Paillonnée* sets the "paillons" against a backdrop of the deep blue characteristic of Jaquet Droz's work in the 18th century. In fact, the paillons incorporated into the dial were originals found tucked away in a museum, long forgotten until the company purchased them.

Managing Director of Jaquet Droz, Manuel Emch, says that one of the

company's aims is to revive the ancient techniques used by Jaquet Droz in the 18th century, when the watch house was famous for its technical artistry. In keeping with the company's historical underpinnings, the company seeks out the most talented artisans in the field to work with them. "In the creative process, it's important to find new ideas," asserts Emch. "We don't want to be complacent." In choosing to work with independents, rather than establishing a department in-house, Emch feels his company keeps independence in the craft, "which is more interesting."

He also acknowledges that the artisans do something unique and should have the platform to be recognized. In regards to the *Petite Heure Minute Paillonnée*, it is the steady hand of artist Anita Porchet that brings life to the enamel, and she can only produce four to five pieces a year.



Enamel watches occupy a very exclusive niche, representing a more sophisticated level of collecting. It is usually after years of acquiring fine timepieces that a customer turns to enamel. Louis de Meckenheim, the Paris-based watch specialist at Van Cleef & Arpels, captures the essence of the idea when he says of his brand's enamel watches, "They are meant to be inspirational creations indicating to the wearer so much more than the simple notion of time."

As might be expected, Van Cleef & Arpels, known for their exquisite jewelry, excels in this art with some of the finest decorative work. The house finds their subject matter in nature, fantasy and asymmetry, turning to their archival collection as well as the thematic in their jewelry collection for inspiration.

For example the "Paon" or Peacock dial draws its inspiration from a minaudière that was created in the 1950s. In this case the champlevé technique was employed to render the luxuriant and colorful sprawl of the peacock's feathers. At Van Cleef & Arpels each piece is a collaborative product,

once the design has been decided on, each specialist, including the stone setter and enameller, contributes their ideas and skill. "The overall process and end product is a true embodiment of the common spirit of the House, not just one person," says de Meckenheim. "This is what creates the homogeneity of each masterpiece achieved by Van Cleef & Arpels whether it be a watch, a pendant, or a high jewelry necklace." He credits Olivier Vaucher for developing, in conjunction with Van Cleef & Arpels, the three-dimensional enameling on the peacock watch that gives radiant depth to the figure. He also gives a nod to Dominique Baron, who combines artistic micro painting with the expert knowledge of the pigmentation process of colors when fired at extreme temperatures. No doubt Baron supplied his skill for the Lady Arpels Centenaire, a watch

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in honor of the house's 100th anniversary. The watch has a white mother-of-pearl disk that rotates around the dial every three months, with a second hand-painted enamel dial showing a garden in the four seasons of bloom. As the repository of such talent, Van Cleef & Arpels considers it a duty to impart knowledge to the next generation and to improve existing techniques.

While most brands design pieces around a caliber, Van Cleef & Arpels takes the inverse approach. They conceive their timepieces in the exact same way as their high jewelry. "We do not create a watch around the movements, but we build a timepiece around a design," explains de Meckenheim. "The technical achievements are not an objective but a means." Still, the mechanics are equal to the dial's art, as the peacock's feathers cradle a sophisticated tourbillon.

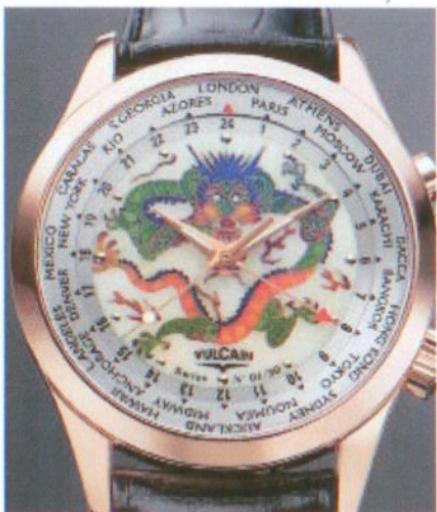
"It is as if one has on the wrist not only the brain of a genius, but the painting of a master," says de Meckenheim.

At Girard Perregaux they have developed their own in-house enameling department, which is in line with their philosophy to master the watchmaking process from start to finish. Vanessa Lecci presides over the workshop that practices both the cloisonné and champlevé techniques. It takes Lecci twice as much time to make a cloisonné enamel dial than a champlevé, although as she says, "My favorite technique is cloisonné because I can reach a higher level of details."

Lecci considers every dial a challenge and a quest for excellence. For her, each dial has its own distinct personality. Girard Perregaux creates dials with Asian designs, such as dragons, and in the tradition of the world timers, continents of the globe. When pressed to identify a piece particularly close to her heart, Lecci states, "The design of the Great wave of Kanagawa represents the most complicated and most beautiful piece that I have achieved."



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Girard Perregaux respects its enamellers to such a high degree each dial bears the signature of the artist and in an expression of their commitment to these traditional skills, Girard Perregaux transmits the heritage to the next generation of craftsmen through a training program.

Roger Dubuis is another practitioner producing enamels within its own walls. "Realizing our enamel dials isn't different from the fact that we realize our own balance spring!" The manufacture chose the Geneva technique to express the brand's spirit and skill. In 2002, they released the first pieces, representing the five continents. Known for their avant-garde style, Roger Dubuis have since brought their interpretation to such themes as tarot cards, boats, Formula 1 motor-racing, polo, and this year, Las Vegas. An interesting feature of the miniatures on the Much More collection is their cambered (arched) dials, adding another visual dimension.

In addition to releasing these exclusive series, Roger Dubuis welcomes collaborations. Some of the brands

aficionados want to immortalize a moment in their life and the manufacture is happy to oblige. "The customer has not only a totally unique piece of art," says Roger Dubuis, "but also a personalized souvenir."

After lying dormant for fifteen years Vulcain, inventor of the famous cricket alarm calibre in 1947, again entered the world stage with a new line of alarm watches in 2002, which included cloisonné enamel pieces presented in a limited edition of 30. As a historical company experiencing its own revival, Vulcain decided to carry on the traditional crafts of haute horlogerie to ensure the continued legacy. They have presented a set of enamels every year since. Themes explored thus far are Aviation, Olympic Games, At the Races (horses), and the just released Aviator GMT "The Dragon".

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- 8 Vulcain
- 9 Ulysse Nardin
- 11 Wire cells awaiting enamel
- 10 Maki-e by Mushu for Speake-Marin's

Text: Meehwa Goshwami

Peter Speake-Marin, the independent watchmaker who, in addition to making watches under his own brand, has developed timepieces with Maitres de Temps and Harry Winston, likes to combine traditional crafts into his work, particularly in his dials. "I am always interested in meeting exceptional artists," he says. "You never know what a new encounter will bring." In his most recent experiment, he teamed up with maki-e master Yamazaki Mushu to create the magnificent and unique maki-e watches.

Maki-e, which translates to sprinkled picture, is the process of painting with urushi (Japanese lacquer) and sprinkling it with metal powders like gold, silver or tin to create the design. In the process, the urushi acts as glue, holding the successive layers and giving the finished picture depth and perspective.

Traditionally the process, developed in the Heian Period (794 -1185), was used to decorate screens, albums, inrō, letterboxes, and ink-slab cases. More recently, maki-e adorns netsuke, tea sets and fountain pens.

Learning the art takes years of study and intense concentration. Mushu came to the art naturally, as his father, Geishu Yamazaki, was a Maki-e master. However, Mushu also studied under master Shuzo Nakamura, and holds deep respect for the latter's talent. When asked whose historical work provides inspiration, Mushu acknowledges Edo period (1603-1867) masters Haritsu Ogawa and Zeshin Shibata.

Mushu and Speake-Marin's first project together was 'Eternal', a watch whose dial was emblazoned with the mythological Phoenix. Received with great excitement, this timepiece gave rise to others including Roaring Tiger, Turtle and Crane, and the commissions Zodiac and Monkey.

Enamel watches meld craft and mechanics into one of the highest expressions of horological art. The dial of a watch is a face we gaze at perhaps more than any other. What better treat than to discover your moments in a masterpiece of glass on your wrist. ☺



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